Department for
Business, Energy
& Industrial Strategy

SMART METERING IMPLEMENTATION PROGRAMME

Consultation on maximising interoperability for SMETS1 meters, including draft legal text

April 2018

Consultation on maximising interoperability for SMETS1 meters, including draft legal text

The consultation can be found on GOV.UK:
www.gov.uk/government/consultations/maximising-interoperability-for-first-generation-smets1-smart-meters

Any enquiries regarding this publication should be sent to us at smartmetering@beis.gov.uk.

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General information

Purpose of this consultation

This consultation seeks stakeholders' views on proposals for strengthening obligations on energy suppliers to maintain smart services when a consumer with a SMETS1 meter switches energy supplier, in order to maximise delivery of benefits for these consumers.

Issued: 17 April 2018

Respond by: 5pm on 24 May 2018

Enquiries to: smartmetering@beis.gov.uk

Smart Metering Implementation Programme – Policy and Consumers Team
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Territorial extent:

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

How to respond

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

Responses should be submitted by email to smartmetering@beis.gov.uk and hardcopy responses sent to the BEIS postal address above will also be accepted.

Additional copies:

You may make copies of this document without seeking permission. An electronic version can be found at GOV.UK: www.gov.uk/government/consultations/maximising-interoperability-for-first-generation-smets1-smart-meters

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.

Confidentiality and data protection

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information legislation (primarily the Freedom of Information Act 2000, the Data Protection Act 1998 and the Environmental Information Regulations 2004).

If you want information that you provide to be treated as confidential please say so clearly in writing when you send your response to the consultation. It would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded by us as a confidentiality request.

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

Quality assurance

This consultation has been carried out in accordance with the government's consultation principles.

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:

BEIS Consultation Co-ordinator
1 Victoria Street,
London, SW1H 0ET
Email: enquiries@beis.gov.uk

1. Executive summary

1. The development of a world-leading smart energy system delivering secure, cheap and clean energy is an important part of the government's Industrial Strategy.[1] As our Clean Growth Strategy highlights, smart technologies and services will play a vital role in decarbonising the energy sector.[2] Smart meters are a vital upgrade to our energy infrastructure enabling these smarter energy systems and energy consumers to be better informed and engaged.

2. The government is committed to ensuring that smart meters will be offered to every home and small business by the end of 2020. Smart meters are the next generation of gas and electricity meters and will deliver a much needed digital transformation of our energy system. They offer a range of intelligent functions and provide consumers with more accurate information, bringing an end to estimated billing. They give consumers near real-time information on their energy consumption to help them control and manage their energy use, save money and reduce emissions.

3. The rollout is also an important foundation for the government and Ofgem's Smart Systems and Flexibility Plan which was published last year.[3] This Plan sets out a number of actions to deliver a smarter, more flexible energy system that supports innovation in new smart products and services.

4. The roll-out of smart meters in Great Britain is happening in two stages – the Foundation Stage, which began in 2011, transitioning into the Main Installation Stage, which commenced in November 2016 when the national data and communications provider, the Data Communications Company (DCC), first became operational and will run until the completion of the rollout at the end of 2020. The DCC provides services for energy suppliers in respect of second generation (SMETS2) smart meters, including where the supplier gains a meter installed by another supplier on change of supplier.

5. A number of energy suppliers are installing first generation (SMETS1) smart meters, using their own data and communications systems to provide smart services.[4] While SMETS1 meters support accurate bills and near real-time energy consumption information and have therefore enabled consumers to realise these benefits early, consumers may lose smart services on switching to another supplier, for example where technical or commercial arrangements with the previous supplier's SMETS1 service provider are not in place. Evidence suggests that less than half of SMETS1 consumers changing energy suppliers are able to maintain smart functionality on their SMETS1 meter, with the meter subsequently operating in traditional mode.[5]

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[1] See: www.gov.uk/government/topical-events/the-uks-industrial-strategy
[2] See: www.gov.uk/government/publications/clean-growth-strategy
[3] See: www.gov.uk/government/publications/upgrading-our-energy-system-smart-systems-and-flexibility-plan
[4] These services are typically provided by Smart Meter System Operators (SMSOs), which offer data and/or communications services to suppliers on a commercial basis.
[5] In addition, in a number of cases although the new supplier did retain smart services this was due to the existing meter being replaced with another SMETS1 meter.

6. Our overall aim is to ensure consumers with SMETS1 meters retain smart services when they switch supplier and our long-standing policy has been for all significant populations of SMETS1 meters to eventually be operated via the DCC to deliver this objective. The DCC is currently procuring, building and testing a service to operate SMETS1 meters, which would allow for smart services to be retained on switching. However, as energy suppliers are not required to make use of a DCC SMETS1 service either at all or promptly, there is a risk that the benefits to consumers of an interoperable SMETS1 service would not be delivered in a timely manner.

7. In recognition of this risk, the government is proposing through this consultation to introduce an obligation on energy suppliers to take all reasonable steps to enrol SMETS1 meters in the DCC, or to replace them with SMETS2 meters, within a specified timeframe in order to secure maximum delivery of benefits for these consumers. In addition, a new back-stop obligation would require energy suppliers to replace any SMETS1 meter that is not enrolled with a SMETS2 meter by the end of 2020.

8. We also consider an alternative approach that would require suppliers to operate gained SMETS1 meters in smart mode by the end of 2019 but allow them to decide whether to use the DCC or an alternative solution to fulfil this obligation. Where they are unable to operate the SMETS1 meter in smart mode, energy suppliers would be required to replace it with a SMETS2 meter within a specified timeframe. While this option would provide suppliers discretion as to how to discharge their obligations, our current view is that there are significant challenges to deliver an effective, market-wide solution to SMETS1 interoperability outside of the DCC.

2. Introduction

Smart Metering Implementation Programme

9. The government is committed to ensuring that smart meters will be offered to every home and smaller business by the end of 2020. Energy suppliers are responsible, under standard conditions of electricity and gas supply licences ('supply licence conditions')[6], for taking all reasonable steps to roll out smart meters to all domestic and smaller business premises in Great Britain. The government's role includes providing the right framework against which energy suppliers can plan, and ensuring benefits are delivered to consumers.

10. An updated Cost Benefit Analysis of Smart Meter roll-out was published in November 2016. This estimated the costs and benefits associated with the national roll-out of smart meters and identified a substantial net benefit from the Programme of £5.7 billion for the period to 2030.[7]

11. The key benefits of the smart metering programme are that it will:

- Contribute to the UK having a secure and resilient energy system.
- Provide near real-time information on cost and usage encouraging consumers to reduce demand and enable faster switching between suppliers. This in turn will lead to a more dynamic and competitive retail energy market.
- Provide the foundation for a range of innovative energy services, which will enhance consumer choice and control.

Background to SMETS1 policy

12. The roll-out of smart meters in Great Britain is happening in two stages – the Foundation Stage, which began in 2011, followed by the Main Installation Stage, which commenced in November 2016 and will run until the completion of the rollout at the end of 2020.

13. A standard for the minimum common functionality of smart meters deployed during the Foundation Stage, known as SMETS1, was defined in 2012 to address the variability in the smart-type meters which some suppliers were already installing and to help ensure consumers received a consistent, minimum service offer. In allowing for SMETS1 meters to count towards suppliers' 2020 roll out targets, government sought to foster early consumer benefits of smart metering and provide industry valuable experience to support the subsequent deployment of smart meters at scale.

[6] See: www.ofgem.gov.uk/licences-codes-and-standards/licences/licence-conditions
[7] See: www.gov.uk/government/publications/smart-meter-roll-out-gb-cost-benefit-analysis

14. A number of energy suppliers have been installing first-generation (SMETS1) smart meters for their customers, using their own data and communications systems to provide smart services. Just under 10.1 million SMETS1 meters have now been installed.[8] Like SMETS2 meters, SMETS1 meters provide benefits of accurate bills and near real-time energy consumption information. However these SMETS1 meters currently operate via data and communications systems put in place by individual energy suppliers, as opposed to a single national data and communications infrastructure which is easily accessible to all suppliers. Consequently consumers may lose smart services on switching to another energy supplier, depending on which supplier they are switching to and from.

15. Our overall aim is to ensure interoperability for SMETS1 meters so that smart functionality is retained when a customer switches energy supplier. Our long-standing policy has been for all significant populations of SMETS1 meters to eventually be operated via the DCC to deliver this objective.[9]

16. Enrolment of SMETS1 meters with the DCC would provide a number of benefits to consumers and the energy market, in particular:

- Retention of smart services for consumers when they switch supplier;
- Reduction of stranding risk for existing SMETS1 assets;[10]
- A number of security benefits arising from enrolling these metering cohorts into the national data and communications service;
- Efficiencies from rationalisation of smart metering interfaces and processes within supplier businesses.

Background to the DCC Enrolment & Adoption Programme

17. In March 2015 the government directed the DCC to assess the feasibility of options for enrolling SMETS1 meters in its system. This process concluded in May 2017 when the DCC submitted the final version of its Initial Enrolment Project Feasibility Report (IEPFR) to BEIS, setting out a series of design options for the enrolment of SMETS1 meters into the DCC infrastructure. The options included integration path approaches (IP) for how the DCC would technically communicate with SMETS1 meters, together with proposed security measures.

18. In June 2017, the government wrote to the DCC to provide guidance on narrowing and advancing its enrolment design options. The letter also stated that BEIS would ultimately

[8] Smart Meters Quarterly Report to end December 2017. See: www.gov.uk/government/statistics/statistical-release-and-data-smart-meters-great-britain-quarter-4-2017

[9] For example, a Programme update published in April 2012 confirmed that 'the government has stated that all domestic Smart Metering Systems should be managed through the DCC and is keen to apply this principle, as far as possible, to meters installed in the Foundation Stage.' See: www.gov.uk/government/uploads/system/uploads/attachment_data/file/68976/Smart_metering_programme_update_-_April_2012.pdf

[10] Namely the risk of suppliers replacing their SMETS1 meters with SMETS2 meters before the SMETS1 meter's end of life.

decide on whether to proceed to enrolment and, if so, in respect of which meter marques (henceforth referred to as a 'SMETS1 meter cohort'),[11] informed by the DCC's design work and a cost benefit analysis of enrolment. We are consulting on the enrolment of SMETS1 meter cohorts with the DCC in parallel to this consultation. Please see paragraph 25.

19. The DCC set out its plan for the delivery of a SMETS1 service in October 2017, following stakeholder consultation.[12] The plan sets out a three-phase approach to the provision of SMETS1 Services. An initial SMETS1 Service would be provided in relation to at least one meter cohort from 30th November 2018,[13] with an interim release for additional meter cohorts on 31st March 2019, and on final release by 30th June 2019. The DCC informed industry of which SMETS1 meter cohorts are currently associated with each release at a Smart Metering Delivery Group (SMDG) meeting held on 11th April 2018.

Content of this consultation

20. Enrolment of SMETS1 meters with the DCC is currently voluntary. Market information suggests that there are commercial and economic incentives on suppliers which would encourage them to enrol SMETS1 meters in the DCC – for example, the provision of a single interface for communicating with SMETS1 and SMETS2 meters should result in efficiency savings for suppliers.

21. As part of the IEPFR, fourteen energy suppliers put forward around 12.6 million SMETS1 meters for enrolment, to reflect their plans for SMETS1 installations in the period prior to the SMETS1 end-date.[14] However, the voluntary nature of SMETS1 enrolment presents a risk that the DCC solution is not used in a timely manner (or at all), which would delay the point at which consumers receive an interoperable SMETS1 service and result in potentially nugatory costs being incurred, as suppliers do not have to operate gained SMETS1 meters[15] which are not enrolled in the DCC as smart until 2021 at domestic premises.[16] We consider this is sub-optimal from a consumer experience perspective and it undermines the delivery of the programme benefits.

[11] Meter marques or meter cohorts are devices that comprise of a number of smart metering systems that are connected to a particular head end system.
[12] See: www.smartdcc.co.uk/media/440317/20171016_smets1_planning_conclusions.pdf
[13] There is currently no contingency built into this plan, however the DCC has proposed to monitor progress and the potential need for contingency on an ongoing basis, and will report to the Smart Metering Design Group (SMDG) and Implementation Managers Forum (IMF) accordingly.
[14] The SMETS1 end date is the date after which new installations of SMETS1 meters will not count toward energy suppliers' rollout obligations. In January 2018 the government set out its expectation that the SMETS1 end-date will be 5 October 2018, though have granted derogations to successful applicants to roll out a limited number of SMETS1 meters after that date with a backstop date of 13 January 2019 to support those energy suppliers' efficient transition from SMETS1 to SMETS2 meters.
[15] Or in cases where the supplier replaces an existing SMETS1 meter with another SMETS1 meter following change of supplier pursuant to electricity supply standard licence condition 50.9 or gas supply standard licence condition 44.9.
[16] In the case of microbusiness premises, the energy supplier does not have to operate a SMETS1 meter in smart mode until potentially its end of life (assuming it is replaced with a meter enrolled in the DCC).

22. This consultation considers options to ensure the DCC enrolment capability is used in a timely manner. This is intended to ensure consumers with SMETS1 meters can retain smart services whenever they switch supplier in line with the Programme's policy and maximise consumer benefits. An annex published alongside this document sets out draft legal text which would amend supply licence conditions to implement the government's proposed approach.

23. Every effort has been made to ensure that the explanatory text in the main body of this consultation document reflects the legal drafting in Annex A. We have also sought to ensure that the explanatory text provides a clear and simplified overview of our proposals, however the legal drafting should be considered to be definitive in the event that there is an inconsistency between it and the explanatory text.

24. The government response to this consultation will be published once the responses received have been analysed. Should our conclusions be that we should proceed with the proposed amendments to supply licence conditions, we will also lay the final draft legal text before Parliament with a view to implementing the concluded policy proposals thereafter.[17]

25. We are consulting in parallel on a proposal to require the DCC to offer SMETS1 services in respect of certain meter cohorts. This is based on a cost-benefit analysis and consideration of security and the technical feasibility of enrolment. See: www.gov.uk/government/consultations/enrolment-of-smets1-meter-cohorts-with-the-data-communications-company

[17] Subject to the conclusions of the consultation mentioned in paragraph 25.

3. Consideration of options

Description of the issue

26. While some consumers with SMETS1 meters are able to retain smart services when they switch energy supplier (depending on which supplier they switch from and to), this is not guaranteed. The Operational Licence Condition[18] broadly requires that relevant smart meters in domestic and microbusiness premises must be operated in smart mode. However, after a domestic consumer switches energy supplier the new supplier does not have to operate the gained smart meter (or any replacement)[19] in smart mode until the earlier of the point the meter is enrolled in the DCC,[20] or 31 December 2020. There is currently no requirement on suppliers to enrol SMETS1 meters in the DCC even if an enrolment service is available, which leads to the risk that some domestic consumers with SMETS1 meters who have switched energy suppliers may not receive a smart service again until the end of 2020.[21]

27. A government consultation in May 2013 considered additional regulation in this area, namely a requirement on the new supplier to continue reading SMETS1 meters remotely. This proposal was not implemented due to the risk that the new supplier may have limited control over the price charged for the service by the incumbent service provider or losing supplier. Instead, the government encouraged suppliers to put in place arrangements so that customers with SMETS1 meters who switch supplier can continue to receive smart benefits.[22]

28. Since then, there has been a marked increase in the number of energy suppliers installing SMETS1 meters but we have seen limited action by most suppliers to resolve SMETS1 interoperability issues. Evidence suggests that less than half of SMETS1 consumers changing energy suppliers are able to maintain smart functionality on their SMETS1 meter, with the meter subsequently operating in traditional mode. This has a negative impact on both consumers with SMETS1 meters – who may effectively have to choose between moving to a cheaper tariff or retaining smart services – and on other consumers' perceptions of the smart metering rollout, which leads to reluctance by some consumers to accept SMETS1 meters.

29. In addition, whilst licence conditions require energy suppliers to explain to domestic consumers before installing a smart meter that they may lose smart services if they subsequently switch supplier,[23] research by Citizens Advice shows that only a small

[18] Part A of electricity supply standard licence condition 49; Part A of gas supply standard licence condition 43.
[19] Pursuant to electricity supply standard licence condition 50.9 and gas supply standard licence condition 44.9.
[20] BEIS is currently consulting on proposed changes to the SEC that would extend the concept of enrolment to SMETS1 Smart Metering Systems.
[21] For consumers in microbusiness premises energy suppliers do not have to operate meters in smart mode until they are enrolled in the DCC.
[22] See: www.gov.uk/government/consultations/smart-metering-implementation-programme-foundation-smart-market
[23] Electricity and gas supply standard licence condition 25B. This also requires the new supplier to inform the

minority of consumers with smart meters are aware that smart meter functionality could be affected if they change supplier, and a large majority of consumers were not informed of this possibility before the smart meter was installed.[24]

30. We therefore do not consider the current arrangements regarding SMETS1 interoperability to be satisfactory and we are not convinced that a timely, market-wide solution will emerge without further government intervention. We have therefore considered a number of options to deliver certainty and a better outcome for consumers with SMETS1 meters by ensuring that when they switch supplier they retain smart services.

Options

31. The following options have been considered.

DCC option (Option 1)

Energy suppliers would be required to take all reasonable steps to enrol their 'eligible SMETS1 meters'[25] with the DCC or replace with SMETS2 meters, within six months of the point at which those meters can be enrolled.

From the point this obligation would apply, should a supplier acquire an eligible SMETS1 meter following change of supplier and the meter is not enrolled, the new supplier would be required to take all reasonable steps to enrol the meter or replace it with a SMETS2 meter, within six months of acquiring the meter.

As a backstop, energy suppliers would be required to replace any SMETS1 meter which is not enrolled in the DCC with a SMETS2 meter by 31 December 2020.

Once a SMETS1 meter has been enrolled in the DCC it may not be withdrawn and operated outside the DCC.

domestic consumer of the smart services that may be lost or varied to the disadvantage of the consumer prior to the switch taking place.

[24] See: www.citizensadvice.org.uk/about-us/policy/policy-research-topics/energy-policy-research-and-consultation-responses/energy-policy-research/early-consumer-experiences-of-smart-meters/

[25] Meters that the DCC has successfully tested against to ensure that it can offer its SMETS1 services in respect of them and that have met the other conditions for enrolment set out in the Smart Energy Code (SEC).

Alternative option (Option 2)

Energy suppliers would be required to take all reasonable steps to operate gained SMETS1 meters in smart mode from end-2019.

Where energy suppliers are unable to operate SMETS1 meters gained prior to end-2019 in smart mode, having taken all reasonable steps, they would be required to take all reasonable steps to replace them with SMETS2 meters by end-June 2020.

Where energy suppliers gain a SMETS1 meter after end-2019 which they are unable to operate in smart mode, having taken all reasonable steps, they would be required to take all reasonable steps to replace with SMETS2 within six months of the date it was gained.

As a backstop, energy suppliers would be required to replace any SMETS1 meter which is not being operated in smart mode with a SMETS2 meter by 31 December 2020.

Once a SMETS1 meter has been enrolled in the DCC it may not be withdrawn and operated outside the DCC.

Option 1

32. While market information suggests that there are commercial and economic reasons why energy suppliers would want to enrol SMETS1 meters in the DCC where this service is available, the current lack of obligations on suppliers to enrol SMETS1 meters presents a risk that the DCC solution is not used in a timely manner or at all. This would mean domestic consumers with un-enrolled SMETS1 meters who change supplier still may not receive smart services until 2021, when the relevant exception to the Operational Licence Condition[26] ceases to apply (see paragraph 26). As noted above, this could also potentially result in nugatory costs being incurred.

33. As set out in the consultation on whether to require the DCC to offer SMETS1 services in respect of certain meter cohorts published in parallel to this consultation (see paragraph 25), we have conducted a cost-benefit analysis which demonstrates a positive business case for enrolment of the four cohorts considered at this stage. This shows an estimated net present value of £210 million to £320 million.[27] This assessment is compared to the 'do nothing' scenario, where no DCC enrolment takes place and most consumers who switch energy suppliers either lose their smart services or have their SMETS1 meter replaced with another smart meter.

34. Option 1 would introduce a new requirement on suppliers to take all reasonable steps to either enrol eligible meters in the DCC, or replace them with SMETS2 meters, within six months of the point from which it is possible to enrol them. Where an energy supplier acquires a SMETS1 meter that can be enrolled but is unenrolled, it would be required to take all reasonable steps to either enrol it in the DCC, or replace it with a SMETS2 meter, within six months of the point it acquires the meter. Where a supplier does not enrol or replace a relevant SMETS1 meter within the specified timeframe it would be in breach of its licence conditions unless it can demonstrate that it has taken 'all reasonable steps' to enrol or replace the meter in question in accordance with the licence condition. The proposal that any SMETS1 meters that are not enrolled in the DCC must be replaced with

[26] Electricity supply standard licence condition 49.18-19; gas supply standard licence condition 43.18-19.
[27] Central assumptions, dependent on final design decisions by the DCC. The figures used are based on 2011 prices and discounted to 2016.

SMETS2 meters by the end of 2020 is intended to ensure that all consumers with smart meters retain a smart service when they switch energy supplier.

35. The proposed six month timeframe for enrolling or replacing eligible SMETS1 meters is intended to balance likely feasible rates for migrating large numbers of meters into the DCC with our desire for securing a fully interoperable smart meter market as early as possible. DCC is currently leading the development work, engaging with its users and existing SMETS1 service providers, on defining the migration approach. The detailed technical and procedural requirements underpinning the DCC's migration solution will be set out in the draft Transition and Migration Approach Document (TMAD), which the DCC intends to publish for consultation on 1 May 2018.[28]

36. There may be scenarios where it is possible to enrol a SMETS1 meter but it churns to another supplier before this happens. DCC is currently working through these scenarios with industry as part of its work on the approach to migrating SMETS1 meters to the DCC. In such cases we consider that the gaining supplier should be able to decide whether to enrol the meter in the DCC or replace it with a SMETS2 meter, rather than being required to replace the meter in all cases. The rationale is that where it is still possible to enrol the meter in the DCC, this should provide a more cost-effective and less disruptive solution for both the energy supplier and the consumer than replacing it with a SMETS2 meter.

37. Our expectation is therefore that enrolment of eligible SMETS1 meters would be more desirable to energy suppliers than replacing them with SMETS2 meters; however we will consider whether to strengthen the proposed requirement to enrol in the DCC after reviewing responses to this consultation if it appears possible that there would be a greater volume of SMETS2 replacements than expected.

38. The proposal that SMETS1 meters which are not enrolled are to be replaced with SMETS2 meters by the end of 2020 is considered proportionate as it would ensure an interoperable smart metering service is available for all consumers by the end of the roll-out. It would also ensure that the consumer and industry benefits of operating meters via the DCC (which is the case with SMETS2 meters), such as support for future innovations based on the smart metering platform, as discussed below, are provided for all consumers with smart meters.

39. Currently third parties such as switching sites or energy services companies generally do not have access to data from SMETS1 meters, unless contractual relationships exist between them and the Smart Meter System Operator (SMSO) or supplier, or the data is retrieved via a Consumer Access Device.[29] By contrast, where they are DCC Users these parties would be able to retrieve data from SMETS2 meters on a consistent basis.[30]

40. The proposed approach would therefore ensure all consumers have the same opportunities to benefit from third party services, whereas a two-tier market may result if some smart meters operate outside the DCC and consumers who do not have enrolled

[28] TMAD is a proposed subsidiary document to the SEC that would cover the process to apply between suppliers and the DCC when enrolling SMETS1 meters that have been commissioned by an existing SMETS1 SMSO.
[29] Consumer Access Devices are ZigBee Smart Energy-enabled devices that connect to the smart metering Home Area Network to allow consumers to access their smart metering data.
[30] Subject to privacy controls set out in Section I of the SEC and wider data protection legislation.

smart meters are not be able to realise the same benefits as those whose meters are enrolled in the DCC.

41. We also consider it appropriate to require that once a SMETS1 meter has been enrolled in the DCC it may not be withdrawn and operated outside the DCC. Permitting suppliers to withdraw enrolled SMETS1 meters and operate them outside the DCC could lead to an uncertain outcome for consumers and potentially be detrimental, for example if certain services supported by the DCC are not available outside of the DCC.

42. We recognise that, depending on the DCC's approach to technically communicating with SMETS1 meters, this option may have implications for existing contractual arrangements between energy suppliers and other industry parties. We have considered these implications against the wider public policy benefits of delivering an interoperable smart metering service for all consumers. Our current view is that these outweigh any potentially negative impacts on individual industry parties and that the proposed approach is justified for the reasons set out elsewhere in this consultation.

Option 2

43. This option is proposed in recognition of the fact that in some cases consumers do retain smart services when they switch energy supplier, for example in some instances where the new supplier has a contractual relationship with the previous supplier's SMSO that is the same as their own. In addition a technical solution has been developed that links two SMSOs' systems, though we are not aware there has been any material uptake of this service by energy suppliers to operate gained SMETS1 meters in smart mode.

44. Option 2 would introduce an obligation on suppliers to operate all gained SMETS1 meters in smart mode from end-2019, including SMETS1 meters that they had gained prior to this point. Suppliers could decide whether to use the DCC service or an alternative interoperability approach to fulfil this obligation.

45. Where it is not possible for the supplier to operate the gained SMETS1 meter in smart mode, this option would require that the supplier takes all reasonable steps to replace the meter with a SMETS2 meter by end-June 2020 (if the meter was gained prior to end-2019), or within six months of gaining the meter (if the meter is gained after end-2019).

46. Similar to Option1, the proposal that any SMETS1 meters that are not being operated in smart mode must be replaced with SMETS2 meters by the end of 2020 is intended to ensure that all consumers with smart meters retain a smart service when they switch energy supplier. Option 2 would also include a prohibition on withdrawing a SMETS1 meter that has been enrolled in the DCC, for the same reasons as provided at paragraph 41.

47. This option is attractive in terms of the flexibility it provides suppliers in how to provide smart services to consumers with SMETS1 meters, in particular for those suppliers who have already invested in SMETS1 interoperability and who would have the choice of whether to continue with these solutions or take up DCC enrolment. This may involve retention of existing service providers and/or greater take-up of potential technical interoperability solutions.

48. However, whilst for some suppliers this may be attractive, our current view is that this approach may lead to a mixed SMETS1 operating environment which would bring undue complexity compared to the consistent, market-wide solution envisaged by Option 1. For example, the DCC would need to provide an ongoing enrolment service for circumstances where a SMETS1 meter that is not enrolled in the DCC switches to an energy supplier who cannot operate the meter outside the DCC. There may also be uncertainty for the consumer as to whether the gaining energy supplier can provide the range of services provided by the previous energy supplier, and third party service providers may not be able to offer services in respect of SMETS1 meters operated outside of the DCC.

49. We foresee significant challenges that would need to be overcome if the approach proposed by Option 2 were to operate successfully on a market-wide basis. In particular, in order to operate any gained SMETS1 meter in smart mode outside of the DCC, our current view is that a supplier would either need to enter agreements with all SMSOs and develop the necessary interfaces for communicating with each SMSO's system or a subset of them,[31] or strike agreements with the previous supplier (or the supplier who had originally installed the meter).

50. In addition a non-DCC solution would not deliver a standardised technical interface, either across SMETS1 or between SMETS1 and SMETS2, which would result in operational complexity for suppliers. By contrast, enrolment into the DCC allows energy suppliers to use the same interface (DUIS) for communicating with SMETS1 and SMETS2 meters via a single contract, the Smart Energy Code.

51. Our current view is that operating outside the DCC may also impede future development of the SMETS1 service offering provided by the SMSO, as new developments would likely require the agreement of the SMSO and its users (i.e. most if not all other energy suppliers). We consider that this would require something akin to the existing Smart Energy Code, which has taken a number of years to develop, to provide the governance framework.

52. Operating outside the DCC would also mean parties are unable to benefit from the centralised alerting and monitoring systems provided by the DCC, which would provide timely insight into identifying and mitigating potential issues or threats to the national data and communications service.

53. While this option would allow existing arrangements to endure and potentially has less impact on suppliers' existing contracts than Option 1, as noted above our current view is that the wider public policy benefits of Option 1 outweigh the potential impacts on existing arrangements between individual industry parties.

[31] Noting existing industry initiatives for linking up SMETS1 SMSOs' systems.

Government's proposed approach

54. In light of the discussion above, our current view is that there is a strong rationale for introducing a requirement for energy suppliers to use the DCC's enrolment service where it has eligible SMETS1 meters, or to replace SMETS1 meters with SMETS2 meters, within a specified timeframe. While Option 1 introduces new obligations on suppliers, our current view is that the impact this has is outweighed by the public policy benefits of delivering a market-wide approach that resolves SMETS1 interoperability for all consumers in a timely manner. **Our preference is therefore to introduce Option 1.**

55. The DCC has been established to provide data and communications services in respect of SMETS2 metering systems on a market-wide basis. We envisage that a similar service for eligible SMETS1 meters could provide a number of benefits to consumers and the energy system, in particular as it allows for the retention of smart services when consumers with SMETS1 meters switch energy supplier on a market-wide basis, as well as maximising the utilisation of the existing DCC infrastructure.

56. The preferred approach would therefore ensure the benefits to consumers of a smart service provided via the DCC are delivered in a timely manner. Our current view is that the requirement on suppliers to replace any SMETS1 meters that are not enrolled with SMETS2 meters by the end of 2020 is justified on similar public policy grounds as it would ensure that all consumers with smart meters receive a smart service by the end of the roll-out. In addition, this approach would provide a platform for smart-enabled innovations for all consumers with smart meters.

57. While the approach proposed in Option 2 may be less onerous for suppliers to comply with in some cases (e.g. where existing arrangements continue), our current view is that this approach could lead to a mixed SMETS1 operating environment whereby some suppliers continue to operate SMETS1 meters (both those they have installed and those gained on change of supplier) via existing SMSOs and other suppliers only operate them via the DCC. This could result in a number of downsides including, in particular:

    - The DCC would need to provide an enduring enrolment service for suppliers who gain SMETS1 devices outside of DCC but cannot operate them as smart and hence would need to take all reasonable steps to enrol them at the point they gain them;
    - There could be challenges for third party providers such as switching sites or energy services companies who are DCC Users but could not easily access data from SMETS1 meters operating outside of the DCC environment.

58. Furthermore, whereas Option 1 would provide a consistent interoperable solution on a market-wide basis, there are a number of significant challenges that industry would need to overcome in reaching an effective, market-wide solution to SMETS1 interoperability that delivers the best outcome for consumers via Option 2. In light of the evidence to date of take-up of existing SMETS1 interoperability solutions, our current view is that this is not deliverable in a timely manner which would lead to the risk that consumers may continue to face SMETS1 interoperability issues if Option 2 were pursued.

59. In light of the overall proposed approach to SMETS1 enrolment, our current view is that it will also be necessary to consider whether Large Suppliers should be required to participate in Interface Testing of the SMETS1 service, in order to support SMETS1

enrolment in a timely manner. This proposal is included in the draft SMETS1 SEC Variation Testing Approach Document (SVTAD) which the DCC published for consultation on 11 April 2018.[32]

Consultation Questions

SMETS1 interoperability proposals	
Q1	Do you agree with the proposal that suppliers should be required to take all reasonable steps to enrol eligible SMETS1 meters in the DCC, or replace with SMETS2, within a specified timeframe?
Q2	Do you agree with the proposal that suppliers should have six months from the point at which a SMETS1 meter can be enrolled to either enrol it or replace with a SMETS2 meter? Please provide evidence for any differing views on window length.
Q3	Do you agree with the proposal that where a supplier gains a SMETS1 meter that can be enrolled but is unenrolled, it should either enrol it or replace with a SMETS2 meter within six months of the point at which it gains the meter?
Q4	Do you agree with our current expectation that energy suppliers would consider enrolment of eligible SMETS1 meters to be more desirable than replacing them with SMETS2? If you do not share this view please provide evidence to support your response.
Q5	Do you agree with the proposal that any unenrolled SMETS1 meters should be replaced with SMETS2 meters by the end of 2020?
Q6	Do you agree with the proposal that once a SMETS1 meter has been enrolled in the DCC it should not be possible for a supplier to withdraw it and operate it outside of the DCC?
Q7	Do you have comments on the government's views regarding the likely challenges of delivering the alternative option (Option 2) in a timely manner on a market-wide basis?

[32] See: www.smartdcc.co.uk/consultations/dcc-responses/dccs-consultation-on-the-proposed-regulatory-version-of-the-sec-variation-testing-approach-document-svtad-for-smets-1-services/

4. Summary of Legal Text

Summary of Legal Text (see Annex A for full version)	
Electricity supply standard licence condition (SLC) 1.3 Gas supply SLC 1.3	• Provides a new definition of 'SMETS1 Smart Metering System'.
Electricity supply SLC 54.1 Gas supply SLC 48.1	• Proposed amendments to clarify that the Licence Condition applies where the licensee is a DCC User.
Electricity supply SLC 54.2 and 54.3 Gas supply SLC 48.2 and 48.3	• Provides for a new requirement on energy suppliers at both domestic and smaller non-domestic premises to take all reasonable steps to enrol eligible SMETS1 meters in the DCC, or replace with SMETS2 meters, within 6 months of the later of: ○ the date on which the meter is first eligible for enrolment; or ○ the date the licensee becomes the relevant energy supplier.
Electricity supply SLC 54.4 and 54.5 Gas supply SLC 48.4 and 48.5	• Provides for a new backstop requirement on energy suppliers at both domestic and smaller non-domestic premises to replace any unenrolled SMETS1 meter with a SMETS2 meter by the end of 2020.
Electricity supply SLC 54.6 and 54.7 Gas supply SLC 48.6 and 48.7	• Amends the existing enrolment duty to reflect the proposed new definition of 'SMETS2+ Smart Metering System',[33] including specific reference to Communications Hub Function as part of the SMETS2+ Smart Metering System.

[33] As proposed in the government consultation on amendments to the Smart Energy Code, DCC Licence and energy supply licence conditions related to the provision of a DCC SMETS1 Service, and updates to the regulatory framework around transition (March 2018). See: https://smartenergycodecompany.co.uk/latest-news/beis-consultation-sec-changes-enable-provision-smets1-service-dcc/

Summary of Legal Text (see Annex A for full version)	
Electricity supply SLC 54.8 and 54.9 Gas supply SLC 48.8 and 48.9	• Provides that where a Smart Metering System is Enrolled at domestic or smaller non-domestic premises, the licensee must take all reasonable steps to ensure that at all times the energy meter and Communications Hub Function (and in the case of gas supply, Gas Proxy Function) are Commissioned.[34]
Electricity supply SLC 54.10 Gas supply SLC 48.10	• Provides definitions for 'Communications Hub Function', 'Eligibility Date' and 'Eligible for Enrolment'

Consultation Questions

Draft legal text	
Q8	Do you agree that the legal drafting in Annex A implements the policy intention? If not please explain why not.
Q9	Do you have any additional comments on the legal drafting?

[34] Please note that despite the proposed amended wording, the intention is for the drafting to have the same effect in respect of SMETS2 meters as is currently provided by the relevant electricity and gas supply SLCs (and proposed changes laid before Parliament on 27 March 2018).

5. Timing and next steps

60. Stakeholders and other interested parties are invited to provide their views on the policy options and draft legal text by 5pm on 24 May 2018.

61. The government response to this consultation will be published following analysis of responses and conclusions on the policy options. Subject to the conclusions of the consultation mentioned in paragraph 25, should our conclusions be to proceed with the proposed amendments to supply licence conditions, the final draft legal text implementing the policy conclusions will be laid before Parliament and come into force in accordance with the procedure set out in section 89 of the Energy Act 2008.

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