



27 October 2010

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Dear Margaret,

Smart Metering Implementation Programme: Prospectus 27 July 2010

Please find comments from CSC Computer Sciences Limited regarding the questions open for comment until 28 October 2010.

CHAPTER 2 (responses requested by 28 October)

Question 1: Do you have any comments on the proposed minimum functional requirements and arrangements for provision of the in-home display device?

We agree that the in-home display device should be optional and that customers who do not wish to have one should be offered a credit on their account. The communications standard and specification by which the meter provides data to the home display should be available to third parties who may wish to develop their own monitoring device or consumer end product. Third parties should not be inhibited in using this data so long as smart meters are restricted to sending data only and data can not be received or sent to the meter in this context. Standard industry protocols should be supported for data transfer.

Question 2: Do you have any comments on our overall approach to data privacy?

Data privacy is an important subject and we support the principle that data should be the property of the end customer and that access to data should be protected and restricted to those the customer may choose to permit only. These activities should only by default be directly relevant to energy supply and network management. Access to data for commercial value added services should be prevented as default. A mechanism to allow for customers to “opt in” is required and even then safeguards are necessary

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Question 4: Have we identified the full range of consumer protection issues related to remote disconnection and switching to prepayment?

Revenue protection; regulated supply businesses often use third party debt collection and debt management agencies. Consideration needs to be given to the privacy, protection and restriction of data between parties and contracts.

Safety and security; the consumer needs to be protected against unauthorised connection and reconnection of supply for security and safety reasons. There may be a difference between the commercial account holder and the person actually using the energy service and one may be physically present but the other not. Vulnerable individuals need to be especially safeguarded against disconnection especially if the process relies on real time communication with utility providers and their agents. No supply should be remotely re energised if there is potential for shock hazard or uncontrolled release of gas into domestic, commercial or industrial premises.

Question 5: Do you have any comments on the proposed approach to smaller non-domestic consumers (in particular on exceptions and access to data)?

Similar principles should apply as for domestic although specific to non-domestic these would be;

Revenue protection; regulated supply businesses often use third party debt collection and debt management agencies. Consideration needs to be given to the privacy, protection and restriction of data between parties and contracts.

Safety and security; the non-domestic customer also needs to be protected against unauthorised connection and reconnection of supply for security and safety reasons. There may be a difference between the commercial account administrator and the non-domestic organisation using the energy service. No supply should be remotely re energised if there is potential for shock hazard or uncontrolled release of gas into domestic, commercial or industrial premises.

CHAPTER 3 (responses requested by 28 October except for asterisked questions, where responses are requested by 28 September)

Question 8: Do you have any comments on the proposals that energy suppliers should be responsible for purchasing, installing and, where appropriate, maintaining all customer premises equipment?

It can be argued that the principle of interoperability and maintaining that principle long term is not an incentive to a supplier. If the supplier is made responsible commercially but the mechanism for procurement, installation, maintenance and management rests with an independent service provider who is accredited by Ofgem (or another body), the long term interoperability principle is more likely to be assured with less risk for the industry overall.

For supply companies who are not vertically integrated with a networks business it can also be argued that the technical skills and competencies for procurement, installation and maintenance of metering devices, maintaining working processes, methods, operational and engineering safety may not exist at the level required to safeguard the industry and the end customer. While supply companies could be licensed and regulated to provide these services themselves this would have to be done via third party contracts.

It is our view that supply companies should be made responsible for the commercial aspects of service and other bodies be made accountable to maintain the physical equipment selection, installation and maintenance. These other bodies would need to have suitable technical engineering skills and competencies and may need to adhere to external audit and quality regimes.

We also cite the now accepted mechanism for implementation and maintenance of metering infrastructure based on commercial competition.

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Smart meters are about changing consumer behaviour by providing more rich information about energy usage, for that reason the meters could be owned by a body that is incentivised to reduce overall consumption, in the commercial world that could be the commercial consumer seeing as it is an incentive to reduce costs.

However to ensure that country and region wide smart meter roll out is economic depends on a process that is region / geography based and not driven by the relationship of the customer to a particular supplier. First implementation therefore needs to be driven by geography as a key programme principle.

Question 9: Do you have any comments on the proposal that the scope of activities of the central data and communications function should be limited initially to those functions that are essential for the effective transfer of smart metering data, such as data access and scheduled data retrieval?

There are strong arguments that central industry services such as data aggregation and other industry processes should more readily be carried out once in the centre. However raw data must also be made available to industry participants if commercial competition is to be supported as these data will inform market development and innovation.

In order to accelerate industry adoption of smart data solutions, an “ecosystem” should be developed. If the data could be available to innovative solution designers then more innovation and hence better consumer behaviour would result. This is like the Apple iPhone where the development of apps was opened up and this created an ecosystem of developers that brought new apps to market quicker.

The deployment of a central data and communications function should focus on data management and transfer / communications, the value added functionality should be opened up to accelerate industry innovation.

Question 10: Do you have any comments on the proposal to establish DCC as a procurement and contract management entity that will procure communications and data services competitively? 47 Smart Metering Implementation Programme: Prospectus 27 July 2010 Appendices

Experience in the UK market to date has arguably watered down agility and the ability of the industry to keep up with technology advances due to the long term nature of the contracts which need to be let and the commercial and regulatory models that support this approach.

However, the DCC needs to be able to demonstrate that it adds value and is more than a contracts management and consolidation organisation, and be more than one which exists on the basis of adding a premium to pass through services which it merely aggregates. It also needs to be incentivised to ensure that it is taking advantage of technology innovation and is keeping pace with commercial realities and passing these on to its served customers, particularly within the length of an individual contract.

Question 11: Do you have any comments on the proposed approach for establishing DCC (through a licence awarded through a competitive licence application process with DCC then subject also to the new Smart Energy Code)?

The need to establish the DCC as a central service is compelling since this has the potential to enable and simplify industry process and enable agility, yet the mechanism to do this via a competitive license award route infers this process would be lengthy and expensive.

If the role of the DCC is restricted in terms of scope of service this would then allow greater competition, especially if the means of delivering the service was via multiple contracts (a range of scope based on technology and geographical components), this could be more realistic and allow the appointment of the DCC to be made earlier in the programme.



Question 12: Does the proposal that suppliers of smaller non-domestic customers should not be obliged to use DCC services but may elect to use them cause any substantive problems?

No, so long as the obligation to use the central industry service to provide minimum data and information for industry processes is enforced.

Question 13: Do you agree with the proposal for a Smart Energy Code to govern the operation of smart metering?

Yes

Question 14: Have we identified all the wider impacts of smart metering on the energy sector?

Since the UK industry is disaggregated in terms of supply and networks, there is a risk that future capabilities and requirements could be insufficiently identified and delivered if the current programme fails to take into account the full extent of “smart” in the widest context.

In our view there is a risk that the longer term industry needs to meet National targets may be insufficiently accommodated if the current smart meter programme is driven by short term needs around remote meter reading and enhancing supply competition only. These other aspects include factors such as those which would be delivered through demand side management and the need to ensure adequate network response and ensure stability of power systems due to embedded & distributed generation and renewables and future technologies and embedded smart devices.

In the UK “smart networks” is being driven by capital investment, alternative energy sources, low carbon & energy efficiency which will inform and further enable retail, wholesale and macro competition. The more rapid response needed and time constants required in smart networks are considerably shorter than those implied for advanced metering infrastructure and those that largely meet the needs of smart metering in isolation.

A key question for UK is therefore **“How can the smart metering programme be advanced yet still ensure that the smart network is not disadvantaged?”**

Question 15: Is there anything further we need to be doing in terms of our ensuring the security of the smart metering system?

The issue of security has so far been mainly focused on data privacy. CSC strongly suggests that additional focus is required on cyber security.

The smart meter (and smart energy physical network for gas and electricity) architectures introduce a number of potential vulnerabilities into the security and integrity of the data and physical energy network.

These include the implementation of wide area data networks between meters and various industry participants, and the ability of consumers to add their own display and other smart appliances, which will be built in accordance with open standards and bought through the consumer market. Such developments could provide opportunities to degrade and to undermine the integrity or exploit the data carried by the network.

A comprehensive threat assessment would provide the basis for an identification of the main risks to the security of the system and the information carried by it. Such an analysis would provide greater assurance on the security of the proposed approach.

The scope of the assessment should be wide and initially, for example, cover data processes in smart metering and data collection, the smart devices themselves, smart meter design, data network components, home area networks, demand response and electricity and gas energy network management in so far as smart effects them.



CHAPTER 3

Question 1: Do you have any comments on our overall approach to data privacy?

Data privacy is an important subject and we support the principle that data should be the property of the end customer and that access to data should be protected and restricted to those the customer may choose to permit only. Access to data for value added services should be prevented as default.

We ask if it is agreed that the customer owns his own data and has the ability to say who has access to the data.

Safety and security; the consumer needs to be protected against unauthorised connection and reconnection of supply for security and safety reasons. There may be a difference between the commercial account holder and the person actually using the energy service and one may be physically present but the other not.

Vulnerable individuals need to be especially safeguarded against disconnection especially if the process relies on real time communication with utility providers and their agents.

Question 2: We seek views from stakeholders on what level of data aggregation and frequency of access to smart metering data is necessary in order for industry to fulfil regulated duties.

Current market processes and current non half hourly commercial tariffs do not yet require access to raw half -hour interval data at domestic and non half hourly customers. However it is CSC's view that access to raw data is a prerequisite to allow for full and complete competition and the full potential for smart metering to be realised. That assumes data privacy and data protection issues can be resolved and overcome.

"Anonymous" data (but sufficiently well described) could be found sufficient for smart market development and commercial modelling. Identification of data at individual meter point addresses would still be required for billing purposes.

An industry role could be created for data protection and granting data access. This could be extended to include cyber security.

Question 3: Do you support the proposal to develop a privacy charter?

Yes and this could be one of the roles of the data protection and access manager.

Question 4: What issues should be covered in a privacy charter?

Primarily the main issue relates to the ownership of the customer data and measures to manage and restrict access to this data. Data access is required by those industry participants who will manage the commercial operation of the market and the supply chain. The level of detail required by different parties will differ and some may only require aggregated data.

A fundamental principle is that data should not be used in a manner which can identify individual customer behaviour and consumption patterns unless there is a need to know.

Further access to data beyond need to know should be prevented unless the customer opts in and agrees to such access.

Access to anonymous data to facilitate the development of the smart market is also required.

CHAPTER 4

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Question 5: Do you agree with our approach for ensuring the end-to-end smart metering system is appropriately secure?

All AMI systems (hardware and software) should fail to a "safe" condition by default. An outage should not create security vulnerability.

We observe that more attention appears to have been directed towards data privacy. Data privacy is very important yet data and cyber security has yet to receive the level of attention needed in our view.

CHAPTER 2

Question 1: Do you agree that access control to secure centrally-coordinated communications, translation services and scheduled data retrieval are essential as part of the initial scope of DCC?

Yes

Question 2: Do you agree that meter registration should be included within DCC "s scope and, if so, when?

Yes; this should be included from day 1 as a principle, however the manner of implementation and migration to a central service should be supported by a viable business case. The underlying requirement is providing access to data rather than having to actually physically manage data.

Question 3: Should data processing, aggregation and storage be included in DCC "s scope and, if so, when?

Yes; this should be included from day 1 as a principle, the manner of implementation and migration to a central service should be supported by a viable business case. The underlying requirement is for providing access to data rather than having to actually physically manage data.

Question 4: Do any measures need to be put in place to facilitate rollout in the period before DCC service availability and the transition to provision of services by DCC, for example requiring DCC to take on communications contracts meeting certain pre-defined criteria?

Commercial activities and the letting of any interim contracts should allow for transfer and novation at a future date.

The role and scope of the DCC service needs to be defined and agreed as soon as possible.

In principle if the DCC is to be a management company the physical delivery of some of all of the service could be provided by third parties including those industry participants to do so today and on an ongoing basis if suitable controls, measures, performance and economics are viable.

CHAPTER 3

Question 5: Do you agree that the licensable activity for DCC should cover procurement and management of contracts for the provision of central services for the communication and management of smart metering data?

Yes in principle. However the DCC needs to be incentivised to keep pace with technology developments and commercial rates which change over the length of common contract terms (5 years or more). Communications technology, bandwidth and computing power have shown to be very competitive and technology advances in relatively short time scales provide for new and more efficient services in periods of 12 to 24 months. Commercial contracts need to cater for technology advances in shorter time frames than common contract terms.

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The DCC also should be required to demonstrate it adheres to industry best practice and can add demonstrable value and bring innovation.

Governance for the DCC role is also critical as the role will impact far more of the market than existing central services providers. It may not be appropriate for the DCC to be owned by a dominant segment of the market (network, supply, meter, balancer aggregator etc)

Question 6: Do you consider that DCC should be an independent company from energy suppliers and/or other users of its services and, if so, how should this be defined?

Yes - Independence shall be mandated by HMG and Governance needs to be resolved on an industry wide basis.

Question 7: Do you have any comments on the steps DCC would need to take to be in a position to provide its services and the likely timescales involved?

The role and scope of the DCC service needs to be defined and agreed as soon as possible.

In principle if the DCC is to be a management company the physical delivery of some of all of the service could be provided by third parties including those industry participants to do so today on an ongoing basis if suitable controls, measures, performance and economics are viable.

This needs to be delivered under a suitable form of industry Governance.

Question 8: Do you have any comments on the proposed approach to cost recovery and incentivisation for DCC?

DCC should;

- Be under appropriate industry Governance and be independent
- Not be dominated by a particular industry participant role such as network, supply etc
- Be incentivised to innovate
- Be transparent and adhere to industry best practice and be subject to audit
- Be incentivised to procure services competitively and to allow for and to keep pace with commercial technology services in the market
- Embrace current services providers and incorporate these if shown to be congruent with new principles and industry requirements

Thank you for the opportunity to provide CSC's views as part of the consultation process. None of the content of this letter is confidential and we would welcome our comments being made available to others. We would be pleased to review and discuss any of our comments further with any interested parties and to contribute to the ongoing discussion and industry work and events.

Yours sincerely,

[Redacted signature block]

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