

Smart Metering Implementation Programme – Roll-out team
Department of Energy & Climate Change
3 Whitehall Place
London
SW1A 2AW

13 October 2011

Dear Sirs

Draft Licence and technical specification consultation

Thank you for the invitation to respond to the above call for evidence. As you are aware, Good Energy is a unique small electricity and gas supplier, as we only supply customers with 100% certified renewable electricity, and gas which supports renewable heat. It is our mission to provide a blueprint for the UK to transform itself to a low carbon, 100% renewable economy through the work that we do and the actions of our customers and renewable generators.

Executive summary

In responding to this consultation, we have taken into account the benefits to consumers direct and indirect as set out in the original DECC impact assessment. We believe it is important that when considering the issue raised below, that we maintain focus on delivering the benefits to the consumers, including future benefits as technology developed that smart metering brings and not just on delivering the lowest cost solution which fails to deliver the full benefits to the consumers who are ultimately paying for this expensive programme of delivery.

For your ease we have responded to the questions asked, expanding where necessary.

Q1. The Government is seeking new evidence and views on the impacts of specifying a completion date that is in the earlier part of 2019.

We recognise the importance of setting a completion date, but believe that date should not be defined until the DCC is available. This date is likely to be the most significant milestone and the end date should be a dependency on it. Equally, as the foundation stage has not yet started, the number of difficult or rate of access is not yet known and thus to set an end date without an indication of these factors would be unwise.

Q2. Do you think the licence conditions (AA1-2) as drafted effectively underpin the policy intention to complete roll-out of Smart Metering Equipment by a specified date? Are there any areas where you consider further clarification is necessary? Please explain your reasoning.

No. As stated above we believe that the date should be set at 'x' months after the commencement of DCC services. We are also concerned that, as written the requirement is for all customers to have metering equipment compliant with the SMETS applicable on that time. However, some installations may be compliant with an earlier version of SMETS, but the differences are not deemed to be significant enough to require a re-installation.

Q3. Do you agree that the licence conditions as drafted effectively underpin the policy intention to deliver Smart Metering Equipment with the functionality and interoperability required to meet the business case? Please explain your reasoning.

No. We believe that a customer should be able to change supplier without any need to reconfigure the meter, even remotely to deliver the specified functions. Functionality above and beyond the SMETS, should be capable of been reconfigured remotely.

We do not believe that as an incoming supplier, we should have to re-configure the meter to meet the SMET functionality. It should be the outgoing supplier's responsibility to return the meter to the SMET compliant version.

- Q4. Do you agree that Smart Metering Equipment should be compliant with the SMETS extant at the time of installation and that it should continue to be compliant with that version of the SMETS through the operational life of the equipment? Please explain your reasoning.**

Yes. We need to avoid the need to continually update meters each time the SMET changes unless absolutely necessary. Any such costs are ultimately borne by customers.

- Q5. Do you agree that in some exceptional circumstances suppliers should be required to retrofit Smart Metering Equipment that has already been installed? Please explain your reasoning.**

Yes. We recognise the need for such a pragmatic solution, but believe that such actions should only be authorised by the Secretary of State where a convincing case has been made. If this happens during the roll out, then clearly the end date would need to be re-considered.

- Q6. Do you think that the licence conditions (AA3-6) as drafted effectively underpin the policy intention for the new and replacement installation of Smart Metering Equipment? Please explain your reasoning.**

Yes.

- Q7. What period of notice do you think would be appropriate before the new and replacement obligation comes into effect? Please explain your reasoning.**

Six months notice should suffice. It should be noted that this will be a backstop date and nearly all suppliers will start smart installations before then, possibly even before the direction by the SoS. However, it will provide space for smaller suppliers who may be negotiating with 3rd party installers and equipment owners to finalise arrangements in a timely manner.

- Q8. What contribution do you think the interoperability licence condition as drafted could play in ensuring that suppliers work together to ensure Smart Metering Equipment is interoperable? Please explain your reasoning.**

We are not convinced that licence conditions requiring licensee's to work together are desirable in the current market dominated by six large players. This usually equates to the larger players agreeing a solution and other suppliers having little choice but accept that solution. It would be much better to place the obligation on each supplier to ensure their meters are interoperable and interoperability is closely defined.

- Q9. Do you think the licence conditions as drafted effectively underpin the policy intention to ensure Smart Metering Equipment is interoperable? Please explain your reasoning?**

We are concerned, that as currently drafted, incoming suppliers may be required to remotely reconfigure the meter in order to make them interoperable. As the incoming supplier has no view of the meter until they are the supplier to the meter we believe the onus should be on the losing supplier to ensure that the meter is interoperable.

- Q10. What role could a dispute resolution mechanism have a role in ensuring interoperability? What key features should such a mechanism have?**

We believe such a role is of importance, not just to identify which party is non-compliant, but also in recognition, that both parties may be compliant due to ambiguity in the specification.

- Q11. For the smaller non-domestic sector do you agree that where there is a Current Transformer meter then suppliers should be required to install an advanced rather than Smart Metering Equipment? Please explain your reasoning.**

Given the costs of the development of CT Smart; we would agree that sites with CT should be AMR metered.

- Q12. Do you think that the licence conditions as drafted effectively underpin the policy intention for Current Transformer meters? Please explain your reasoning.**

Yes.

- Q13. Do you think under the new and replacement obligation gas suppliers should be given the option to wait for the installation of electricity Smart Metering Equipment before installing the gas Smart Metering Equipment? Please explain your reasoning.**

While this sounds like a sensible approach - we would question how this can be managed. It will be difficult for gas suppliers to be aware of when the electricity smart meter has been fitted. In addition suppliers will have different roll out plans; some will go heavy volume at the beginning and others may start light. These contrasting roll out plans will create additional difficulty for gas suppliers awaiting an electric smart fitting.

- Q14. Do you think there are any other barriers to gas Smart Metering Equipment being installed before electricity Smart Metering Equipment? Please explain your reasoning.**

If the electric meter holds the HAN connection gas smart meters may be fitted and it could be years before the consumer realises any smart benefits.

- Q15. What do you think the implications would be of extending the new and replacement obligations to the licences of other relevant parties in relation to installing Smart Metering Equipment in new developments without the involvement of a supplier? Do you think mechanisms other than licence conditions should be considered to achieve the policy objective? Please explain your reasoning.**

As stated, should a non-compliant smart meter be installed by a 3rd party without the supplier's involvement then the supplier will have no choice but to replace it. Given that the supplier would need to install compliant meter on appointment so that it can be energised (as meters cannot be energised without a supplier being appointed), then the loss would be on the meter asset provider who finds their equipment returned without any rental payment. This seems an unlikely scenario.

- Q16. Do you think the roll-out of Smart Metering Equipment has any specific implications for the provision of emergency metering services? Please explain your reasoning.**

Suppliers will have specific metering and contractual relationships in place for the delivery of smart meters. EMS work could see new meters installed that do not align to the suppliers metering arrangements and thus further metering exchanges may be required to restore the full smart meter service that the customer had prior to the emergency.

- Q17. What period of notice do you think would be appropriate before the obligation to provide an IHD comes into effect? Please explain your reasoning.**

A six month notice period should suffice. It is likely that supplier's will begin supplying IHDs before this date, but six months notice is useful for small suppliers who will be delivering the roll out using 3rd party providers and allow time to finalise agreements in a timely manner.

- Q18. Would the consumer changing their supplier raise any particular issues with regard to the approach set out for the provision of IHDs? Please explain your reasoning.**

If a customer declines an IHD at installation, but subsequently requests one after changing supplier, then interoperability must ensure that the supplier can pair their IHD with the other supplier's installed meter.

- Q19. Do you think the licence conditions as drafted effectively underpin the policy intentions set out for the provision of IHDs to domestic consumers? Please explain your reasoning.**

We are not convinced that licence conditions requiring licensee's to work together are desirable in the current market dominated by six large players. This usually equates to the larger players agreeing a solution and other suppliers having little choice but accept that solution. It would be much better to place the obligation on each supplier to ensure their IHD are interoperable and interoperability is closely defined. For example, if the installing supplier has their logo on the default screen of the IHD, then subsequent suppliers should be able to replace that logo with their own.

- Q20. Do you agree that the Standard Licence Conditions identified above require consequential changes in light of the roll-out licence conditions? Do you agree with the Government's proposed approach? Please explain your reasoning.**

Yes.

- Q21. Do you think there are any other consequential changes to existing licence conditions needed in order to make the proposed roll out obligations work as intended? Please explain your reasoning**

Not at the current state of proposals, although as more detail becomes evident, other changes may be required.

- Q22. Do you think there are any consequential changes to existing legislation needed in order to make the proposed roll-out obligations work correctly? Please explain your reasoning.**

Not at the current state of proposals, although as more detail becomes evident, other changes may be required.

- Q23. Do you think there are any consequential changes to existing codes needed in order to make the proposed roll-out obligations work correctly? Please explain your reasoning.**

If the full benefits of smart metering are to be captured there are likely to be several changes. Even at this stage it is likely that all codes will need to recognise the DCC.

- Q24. Do you think that there are other requirements that the Government should adopt in the SMETS? Please explain your reasoning.**

We do not have the relevant knowledge in this area to answer this question.

- Q25. Do you agree that all the requirements recommended in the IDTS should be adopted by the Government in the SMETS? Please explain your reasoning.**

We do not have the relevant knowledge in this area to answer this question.

- Q26. Do you agree that the security requirements recommended in the IDTS are proportionate to the level of risk that the End-to-end Smart Metering System faces? Please explain your reasoning.**

We do not have the relevant knowledge in this area to answer this question.

- Q27. Do you agree that the process outlined above is a suitable way forward to develop the SMETS? Please explain your reasoning.**

We would like to see the SMETS approved and compliant meters available sooner as the time this is taking is making it difficult for suppliers and prospective metering partners to plan effectively. However we also accept that the process outlined is the best way forward.

- Q28. Do you think that the SMETS should ultimately be governed as part of the Smart Energy Code? What alternative arrangements could be adopted for the ongoing governance of the SMETS? Please explain your reasoning.**

We agree with this approach. A central (and independent) governance structure enables and ensures interoperability across the industry.

- Q29. What unit manufacturing cost reduction do you think can be achieved for Smart Metering Equipment over the next 20 years? Please explain your reasoning. Please also provide any other comments (accompanied by evidence) on the estimated costs of the Smart Metering Equipment as set out in the Impact Assessment.**

As a supply only business we would be unable to respond to this question.

- Q30. Do you agree that the Government should include a requirement for a Communications Hub in the SMETS? Please explain your reasoning.**

We agree with the inclusion of a communications hub component within the SMETS; this should ensure interoperability. However we should also be mindful of the additional costs that this brings to the smart metering system.

- Q31. Do you agree with the estimated costs and benefits for outage detection and the Government proposal to require the Communications Hub to include the equipment necessary to provide electricity outage detection? Please explain your reasoning.**

Currently we do not believe that the additional costs within the smart metering system to deliver "outage detection" are outweighed by the perceived benefits. These costs will be faced by the consumer already looking at an increased cost to serve with smart metering. Our view is that this is something that over complicates what needs to be delivered.

- Q32. Do you agree that the DCC Communication Service Providers should specify the requirements for outage detection as part of their general role in specifying the WAN technology? Please explain your reasoning**

As per our answer to question 31; we do not agree with "outage detection" as part of the SMETS.

- Q33. Do you think that the Communications Hub should also have the functionality to send a communication to the DCC when power is restored? Please explain your reasoning.**

As per our answer to question 31; we do not agree with "outage detection" as part of the SMETS.

- Q34. Do you agree with the Government's proposal that fully integrated electricity meters and Communications Hubs will not comply with the SMETS? Please explain your reasoning.**

We agree that the electricity meter and the comms module should be separate. This reduces the upgrade/maintenance costs. We see no preference between option 3a and option 4 - however we would think that cost to deliver should be a consideration.

- Q35. Do you think the Smart Metering Implementation Programme objectives would be better met by:**

a. Using the SMETS to mandate a separate Communications Hub with a fixed WAN transceiver? Or

b. Giving suppliers flexibility over options for configuration of the Communications Hub?

Please explain your reasoning.

For ease of delivery and future interoperability we would suggest that option 'a' is the best approach.

If too much flexibility is given to suppliers we can see a situation arise on change of supplier where the individual configurations mean a customer can lose smart functionality on the switch. Changes to the configuration at that stage will only add to the costs.

- Q36. Do you agree there should be no restrictions on the HAN standards adopted by suppliers, provided they are available as a European (CEN, CENELEC or ETSI) or International (IEC or ISO) standard? Please provide evidence to support your position.**

We agree that there should be no restriction on HAN standards - however we would be mindful that the varying HAN standards selected by suppliers does not interfere or create issues through the change of supplier processes. For example removing installing suppliers logo with their own.

- Q37. The IDTS has recommended that all standards should be recognised or be in the process of being recognised by 31 December 2014; do you agree with this recommendation? Please explain your reasoning.**

We agree with this; although we would want to ensure that any HAN standards employed by early adopters that are not part of this are seen as non-compliant smart metering with that cost of replacement in the hands of the early adopting supplier.

- Q38. Do you think that regulatory obligations are needed to underpin a systematic approach to testing of HAN standards during the Foundation phase? Please explain your reasoning.**

We would like to see regulatory control in this area to ensure the market is not swamped with HANs that are not part of future standards - costs to exchange to be borne by the early adopting supplier.

- Q39. Do you agree with industry's recommendation that DLMS should be adopted as the application layer for communications with the DCC? Do you believe there are any consumer, economic or technical issues with this solution which could be circumvented by an alternative approach? Do you have any economic, technical or consumer evidence to assist Government in evaluating industry's proposal?**

We do not have the relevant knowledge in this area to answer this question, but believe that the solution must allow suppliers to communicate with bridging devices, such as appliances with demand side capabilities, and software upgrades to IHD.

- Q40. Do you agree with industry's recommendation that DLMS and Zigbee SEP 1.x should be adopted as the application layer for communications within the consumer premises, provided they install the necessary translation equipment? Do you believe there are any consumer, economic or technical issues with this solution which could be resolved by an alternative approach? Do you have any economic, technical or consumer evidence to assist Government in evaluating industry's proposal?**

Through our smart meter trials we have had issues with Zigbee technology. This is a particular issue when there is distance between the meter point, the comms module or the IHD. We would question if Zigbee is, in fact the best application for comms.

- Q41. Do you think the Smart Metering Implementation Programme objectives would be best met by the proposed approach above? Or should a single, network-layer technology standard such as IPv6 be mandated? Please explain your reasoning.**

We do not have the relevant knowledge in this area to answer this question - however we would suggest that the final decision is based on providing best interoperability at the lowest cost. Throughout the whole smart metering process we have been wary of the issues that can be faced with multiple technologies and standards.

- Q42. Is the provision of a single network-layer address for each Communications Hub a reasonable and sufficient functional requirement for the Smart Meter WAN? Will this requirement limit potential future capability or present challenges, for example, in multi-occupancy buildings?**

This is not a question we would be able to answer as we do not have the relevant knowledge within a supply business.

- Q43. Do you think that maximum and minimum demand functionality should be included in the SMETS? Please provide supporting evidence for your response**

We do not believe that this will provide a significant benefit to the end domestic user - if anything this additional information is more likely to confuse the customer.

- Q44. Do you think that network registers should be included in the SMETS? Please provide supporting evidence for your response (including the cost implications for Smart Metering Equipment, and any alternative approaches that would provide this functionality).**

If the Government decide that energy companies will not be able to access the half-hourly data, then the logical step is to provide DNO specific registers. However, we believe that by not allowing network companies access to HH data will mean that the full benefits of smart metering will not be utilised, especially the ability to engage dynamic demand reduction to deal with network constraints.

- Q45. Do you think that the prepayment meter contactor switch should be utilised to protect consumer premises from "floating neutral" network faults? Please provide evidence on the costs and benefits to support your reasoning.**

This is not a question we would be able to answer as we do not have the relevant knowledge within a supply business. We would, however suggest that these additional costs should be borne by distributions businesses rather than supply businesses.

- Q46. Do you agree with the proposed approach for consumers to access data and transfer it from the HAN via a separate "bridging" device? Please explain your reasoning.**

We agree with the use of a bridging device if consumers choose to access and transfer data from the meter. This ensures that only those that choose to implement this device pay for it - rather than enabling all meters and thus increasing the costs for all consumers. In addition this options appears to provide the best solution in terms of consumer safety. Third party data access and security needs to be considered.

- Q47. Do you have any views on the options presented to ensure that electrical contractors can work safely and efficiently between the electricity meter and the consumer unit/fuse box? Please provide evidence to support your reasoning.**

We cannot add to this question in terms of technical knowledge; however we would agree that there is a case for making the process for electrical contractors to work on the area between the meter and the consumer unit. This work should be able to proceed without the need to involve multiple utility industry agents on multiple visits to de-energise and re-energise a meter point. The current process is too costly and inefficient.

- Q48. Do you agree with industry's proposals for an overall architecture of an application layer standard with translation through a Communications Hub to a HAN? Do you believe there are any consumer, economic or technical issues**

We agree to the concept. We cannot offer any technical knowledge on this; however we should be wary of this development creating further delays or costs to the smart meter development.

- Q49. Where do you believe that translation is best managed:**

- a) At the Communications Hub; Or**
- b) At the DCC?**

Do you have any economic, technical or consumer evidence to assist Government in evaluating the options?

This is not a question we would be able to answer as we do not have the relevant knowledge within a supply business.

- Q50. Do you agree that the IHD should only be required to display ambient feedback based on energy usage? Please explain your answer.**

We agree with this. Providing the consumer can easily set the levels for the alert system. We should also be wary that not all consumers will engage with ambient feedback and in fact may start to ignore it over time. Perhaps the ambient feedback should be an optional aspect of the IHD rather than one of the standards.

Q51. Do you agree that Smart Metering Equipment should be designed to support the calculation and/or display of account balances as described above, even though suppliers may not initially be mandated to invoke such functionality for credit customers?

We are not opposed to the optionality to display/calculate account balances, but believe such information could be misleading to consumers. The benefit of been able to retrieve actual reads to produce accurate bills will solve most of the issues customers have with account balances and remain unconvinced that the significant cost of providing this information are justified.

The Government has a stated intention of encouraging new entrants into the supply market. Complex billing requirements such as this will be a significant barrier to entry.

Q52. What do you think the costs and benefits are of mandating suppliers to display an account balance (over-and-above those arising from display of information on cumulative cost of consumption) for credit customers on their IHD?

Current billing systems only recalculate the balance on receipt of a reading, usually as an overnight batch job. As a consequence, real time account balances would require significant investment to deliver real time data. Periodic updates would require suppliers to update the IHD on receipt of each payment to little benefit, especially to those on direct debit. On gas where DD customers tend to run towards debt at the end of winter and go into credit during summer, this may lead to confusion, especially vulnerable customers who may get concerned at a debt figure on their IHD.

Q53. Do you agree with or have any comments on the Government's proposals for the outstanding issues from the Response? Please explain your reasoning.

We would like to see swift considerations for the technical considerations and approach to larger domestic or smaller non domestic consumers. We are already facing issues through early adoption on these sites and we face confusion on the rules around interoperability at a commercial level.

In terms of EMS we would like to see support from the Government on this at a public level; especially as the smart meter rollout intensifies. Consumers are raising issues on this right now and suppliers need the support of the government to ensure that the smart meter rollout is seen as a good news story. These EMS concerns could snowball through the media and social networking; something that could hamper the success of the rollout.

Q54. Do you think that an assurance framework, underpinned by regulatory obligations, is needed to support the delivery of the required functionality, interconnectivity, interoperability, and security of Smart Metering Equipment? Please explain your reasoning.

No. In our experience, assurance frameworks do not deliver anything other than an exercise in bureaucracy. A more effective approach to resolve issues would be a dispute resolution process, with suppliers referring each other on interoperability issues, and consumers being referred to the Ombudsman where necessary.

Q55. Do you agree that as part of any assurance framework adopted, there should be a testing regime in place to support the delivery of the required functionality, interoperability and security? Please explain your reasoning.

The industry would benefit from a testing regime, but this regime should be focused on allowing participants to test their systems and processes. However, it should not dictate the processes/systems as long as the outcomes regarding functionality, interoperability and security

are achieved. The industry has a prolonged history of over regulation which has in many cases stifled innovation.

Q56. What are your views on the options outlined for a testing regime? Are there other options that should be considered?

Any testing regime will need to be enduring in order that new entrants can test their readiness, and existing participants can test major upgrades to systems. We do not favour a market led approach as this would require existing players to keep testing facilities available for new entrants. We therefore favour a centralised function, who will provide support to parties to ensure they can meet the 3 functions set out in the document.

Q57. Do you think that a different approach to assurance is necessary for the Foundation and enduring phases? Please explain your answer.

No. Except where communication with/via the DCC is being tested, in which case the foundation stage will need to be assured that the alternative solution meets the three requirements on functionality, interoperability and security.

Q58. Do you think that the activities outlined above are a suitable way for achieving interoperability across Smart Metering Equipment cryptographic functionality? How else could this be achieved?

We are unable to provide the relevant knowledge to answer this question - but with an overview we would agree to the approach outlined.

Q59. Do you agree that cryptographic/ key management is necessary to secure the End-to-end Smart Metering System? Please explain your reasoning

This is not a question we would be able to answer as we do not have the relevant knowledge within a supply business.

Q60. Do you agree with the Government's assessment of the advantages and disadvantages of the cryptographic solutions identified above? What other options should the Government consider? Please explain your reasoning

This is not a question we would be able to answer as we do not have the relevant knowledge within a supply business.

Q61. Do you think that it would be appropriate for the DCC to be responsible for cryptographic key management for the End-to-end Smart Metering System? What other options should the Government consider? Please explain your reasoning

We agree that the DCC should be responsible for the key management. We feel that the central data manager (DCC) should be responsible for how that system is managed.

Q62. How do you believe the security approach should be applied to opted out non-domestic consumers? Do you see any issues with the approach? Please explain your reasoning.

We don't agree with an opt-in/opt-out scenario. Maintaining the same security model across all sectors makes best sense for ease of implementation and interoperability.