



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

**Appendix A: Substantive Questions
Consultation on Possible National Rollout Scenarios
for the Smart Metering Cost Benefit Analysis**

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Appendix A – List of Substantive Questions

Appendix A provides a list of questions asked throughout this consultation paper - these questions are presented in the table below.

The aim of this section is to allow for a “short-cut” option for respondents to submit their comments to the CER. Respondents are invited to complete the table to indicate their position on the questions being asked. Respondents should outline YES or NO answers to each of the questions listed. If they have a further comment which will clarify their answer, this should be included in the Comments box. Appendix A will be published alongside the consultation paper in Word format.

Please note: Respondents are in no way obliged to respond to the questionnaire provided and are welcome to submit comments in their preferred format. When preparing responses respondents should indicate which question or proposal their text refers to.

Please note also that, as the majority of questions posed in this consultation address both electricity and gas smart metering issues, respondents should make it explicit in their responses if their comments are applicable to electricity, gas or both.

Question	Yes	No	Comments
Section 2.0 - Objectives			
Q1. Respondents are invited to submit their comments on these stated objectives of the National Smart Metering Programme. In particular, do you agree with the objectives outlined for the Irish National Smart Meter Programme? Have you any other suggested objectives? If so give details.	Yes		GE fully supports the objectives of the Irish National Smart Metering Programme. GE openly promote the overall ability to support future expansion into Improved Network services via SmartGrid technologies. GE advocates systems which provide the long term expansion capabilities to support functionalities such as Demand Side Management, Peak Load Management, Micro Generation.
Section 3.0 - Ownership, Display and Provision of Information			
Q2. Respondents are invited to submit			GE has no comment

<p>their views on the granularity of data that should be available from smart metering systems and how this data should be made available to energy suppliers. In particular:</p> <ul style="list-style-type: none"> • What granularity of data do suppliers require to carry out their business: interval reads, daily reads, monthly reads? • Do suppliers have a view on whether data is pushed to them at defined frequencies or would they prefer to pull/access data from a web portal as required? • How frequently do suppliers want to access data? • What service levels are required around the various information sets that are required by the suppliers? • Do suppliers want to hold all historical data on their customers or are they happy to access historical data from a centralized portal? 			<p>on this topic.</p>
<p>Q3. Respondents are invited to submit their views on how smart metering data should be made accessible to energy customers. In particular:</p> <ul style="list-style-type: none"> • What information set should Customers be provided with? • Should suppliers provide data directly to their customers or would it be preferable that the data is accessible from a web portal provided by the network company / meter data collector? Or are there any other options that should be considered? 	<p>Y</p>		<p>Customer Data should include but not restricted to instantaneous power, previous day, week and month usage and costs. Consumer should also be aware when entering a peak period and be able to manage overall consumption to a target. Management of pre-payment via the display is also important. 2 way facilities can help manage interactions required to avoid self disconnection.</p> <p>Web portals could be used for customers wanting detailed historic data not contained on the IHD device or the meter.</p>
<p>Q4. Respondents are invited to submit their views on the required frequency and detail of billing. In particular:</p> <ul style="list-style-type: none"> - Do you have a view on the likely 			<p>GE has no comment on this topic.</p>

<p>requirement for monthly billing of customers?</p> <ul style="list-style-type: none"> - Do you have a view on the type of information relating to energy usage that should be contained on bills? - Also, for the purposes of such informative billing what granularity of data are the suppliers likely to require? 			
<p>Q5. Respondents are invited to comment on the viability of the “Thin Prepayment” solution. In particular:</p> <ul style="list-style-type: none"> • The availability of meter reading data to agreed service levels is important for the operation of a “thin meter” prepayment solution. What service level do suppliers require for the thin prepayment solution? • Do Suppliers believe that the “thin Prepayment” solution is workable? Specifically do Suppliers believe they will be able to provide sufficient access to credit balances to Customers without any display on the meter? • Do Suppliers think that an occasional loss of the communications channels to the prepayment meter will cause difficulty? • How do respondents feel customers should be kept up to date on their balances? For example, do respondents see the provision of an In Home Display (IHD) as an essential part of a thin prepayment” solution? 	Y		<p>GE supports the approach of a thin pre-payment metering system so the meter is capable of being switched between a credit or debit meter via the back haul system.</p> <p>GE believes that consumers should be notified of balances via IHD or internet service provision. By adopting open standards such as Smart Energy Profile, IHD suppliers can innovate solutions with Suppliers to meet customer and business requirements and maintain engagement.</p>
<p>Q6. Respondents are invited to submit their views on how smart metering data can be made available dynamically in the home. In particular:</p> <ul style="list-style-type: none"> • Do respondents feel that internet enabled technology could meet customer requirement for consumption information or will it be inadequate? • Do respondents view the In Home Display (IHD) as an essential feature of their future product offerings? • If an IHD is a requirement which of the following should be responsible for 	Y		<p>GE believes that data should be made available to the consumer by the web as a default option for those customers wanting to register for it. In addition each meter should contain the capability of a Home area network connection where devices using a secure open standard can subscribe the data from the meter (IHD / Home automation systems , etc). GE believes the IHD is central to consumer</p>

<p>providing and maintaining the IHD and what are the reasons for your preference: The Customer; The Supplier; or Network company?</p> <ul style="list-style-type: none"> • Do suppliers intend to offer products in the market that would feature load management or demand response by the customer? • What in your view is the high level minimum functionality for an IHD? 			<p>understanding of consumption.</p> <p>Customer Data should include but not restricted to instantaneous power, previous day, week and month usage and costs. Consumer should also be aware when entering a peak period and be able to manage overall consumption to a target. Management of pre-payment via the display is also important. 2 way facilities can help manage interactions required to avoid self-disconnection.</p>
<p>Q7. Respondents are invited to submit any comments or views on the issue of data ownership or data security relating to smart metering.</p>			<p>GE believes that data security is an important factor to be considered in smart metering. GE offer varying levels of password to gain entry to the meter from a communications perspective and only provide data that is encrypted with a suitable algorithm to eliminate data theft.</p>
<p>Q8. Respondents are invited to submit any comments or views on whether specific data provision and accessibility requirements for vulnerable customers need to be considered as part of a smart metering solution? If so, give details.</p>			<p>GE believes that an IHD is the most appropriate way to support vulnerable customers. Support would be based on open standards via ZigBee interface running Smart Energy Profile, allowing for companies to develop appropriate solutions.</p>
Section 4.0 - Smart Metering System Functionality Scenarios			
<p>Q9. Respondents are invited to comment on the core smart metering functionality as outlined in Scenario A. In particular:</p> <ul style="list-style-type: none"> • Do you agree with this core functionality? Are there any functions you feel should not be in the core scenario or are there any functions missing? • How many or what flexibility is required in relation to the number of Time of Use (ToU) registers on the electricity meter? 	Y		<p>GE believes that in order to have a meter which will remain operational for 20 years, a hot swappable communications module would be required.</p> <p>GE believes that the meter should offer a minimum of 4 TOU registers, however future developments</p>

<ul style="list-style-type: none"> • Apart from the current meter reading is there any requirement to display further information on the meter? Please bear in mind that meters are not easily accessible to all customers. 			<p>will increase the number of TOU registers.</p> <p>GE believes that the meter should display the current and previous meter reading so the consumer can calculate monthly usage. Provision should also be made to display the instantaneous energy at that moment in time.</p>
<p>Q10. Respondents are invited to submit their views on the whether you think that leveraging the communications module in the electricity meter as a hub for Gas metering is a good idea or would you rather see a separate communications hub in the home to support gas metering?</p>			<p>GE believes that the electricity smart meter/communications module should act as a data collection hub for support of Gas meters via a Home Area Network.</p> <p>This offers a more secure solution and is more cost effective from an installation perspective.</p> <p>Gas support would be via open standards such as ZigBee interface utilising Smart Energy Profile.</p> <p>Bridging technology for hard to read areas is also a possibility if the gas meter is out of range.</p>
<p>Q11. Respondents are invited to give their views on the additional functionality scenario B. In particular:</p> <ul style="list-style-type: none"> • Is one way communication between the Meter and the IHD sufficient? If not what are the additional requirements that would drive two way communications? • What are respondents' views on the issue of the communications protocols to be used in the home? • What data should be provided to an In Home Display or equivalent from the meter? 			<p>Two way IHD communication will be required to support pre-payment. It also provides a route to communicate with customers for additional services.</p> <p>GE actively supports the use of open standards and as such would promote a ZigBee interface that would offer support for the industry standard Smart Energy Profile protocol. The smart Energy Profile is also being adopted by Homeplug association to allow interoperability between wired and wireless devices.</p>

		<p>Data presented to the consumer should include but not restricted to instantaneous power, previous day, week and month usage and costs. Consumer should also be aware when entering a peak period.</p>
<p>Q12. Respondents are invited to give their views on the additional functionality scenario outlined in section 4.3.2 above. In particular is there any additional functionality required to support the “thin prepayment” solution?</p>		<p>In an installation where the consumer has no access to the meter, it may be a requirement for the IHD to support re-closure of the consumer disconnect. This would inevitably require the IHD to act as two-way communications.</p>
<p>Q13. Respondents are invited to give their views on the additional functionality scenario C. In particular:</p> <ul style="list-style-type: none"> • What are the additional requirements in terms of smart metering and associated benefits to support the smart home? • What devices should be allowed to join the HAN? • Will there be any special metering or control requirements for Electric Vehicles? • What is your view on what HAN standard should be used? • Is the technology too immature to progress with the functionality described in Scenario C. 		<p>GE actively supports the use of open standards and interfaces and as such would promote a way of providing a secure way of sharing data with home automation systems and for consumers to opt in to allow load management of their devices in cases where there is a generation shortfall or during critical peak pricing. The utility data, such as gas and electricity readings should be secured so as to avoid tamper, but there should be a way of the consumer being able to link in their own devices.</p> <p>Any device could subscribe the data coming from the meters on a read only basis as long as they are certified to the open standard and approved by the utility who manage the HAN network.</p> <p>ZigBee 2.4GHz HAN (wireless) and Homeplug AV (using power lines) would offer support for the industry standard</p>

		<p>Smart Energy Profile protocol (SEP).</p> <p>SEP 1.0 is currently in use in many pilots and rollouts across the world. SEP 2.0 is due for release next year and will feature additional support for pre-payment and interaoperability with Homeplug.</p>
<p>Section 5.0 - Implementation Issues</p>		
<p>Q14. Respondents are invited to give their views on the high level implementation timelines outlined above. In particular:</p> <ul style="list-style-type: none"> • Do you agree with the indicative timetable? • Do you agree with following an accelerated deployment or taking a more phased approach in line with a scheduled meter replacement programme? • How should metering arrangements for Micro generators and Electric Vehicles be dealt with before full roll out? • Should there be priority areas or priority customer categories for early roll out? <p>Q15. Respondents are invited to give their views on the need for customer awareness and education work programme as outlined above. In particular:</p> <ul style="list-style-type: none"> • What would be the nature and timing of such customer awareness education and promotion relative to the programme timelines? • Where should responsibility reside for the development and execution of such an awareness programme? 	<p>Yes</p>	<p>GE agrees with the approach and timescales.</p> <p>GE has no comment on this topic.</p>

