



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	Comments
<p>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.</p>	<p>We agree with the objectives. Concerning peak load management, pricing signals (time of use tariffs) are probably not sufficient: power control should be integrated into the smart meters, (as it is done in other countries like Spain or Italy), in order to facilitate peak load management.</p>
<p>Q2. Respondents are invited to submit 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? 	<p>We suggest that time-of-use or block tariffs with flexible periods must be supported, differentiating different time blocks (up to 6 for domestic customers) and days of the week. However, in our opinion it is sufficient to read this data once a month for domestic customers. Additionally, for a controlled set of sample</p>

<ul style="list-style-type: none"> • 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>customers (not for mass reading), registering a quarter-hourly load curve of active and reactive energy can be important for profiling. Also in this case, monthly access to the data should be sufficient.</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>The information to the customers should be provided jointly by DSO and supplier: the first one would provide consumption data, the second one contractual data. Different levels of in-home services should be designed, depending basically on data refreshing time and level of integration with in-home loads.</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 requirement for monthly billing of customers? - 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>Monthly billing and reading is adequate. Six time blocks are enough for domestic customers. Customer bill could be linked also to the maximum power used by customer in the related billing period. It would be a further instrument for peak load reduction.</p>
<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 	<p>The thin prepayment option seems reasonable and is technically feasible. However, it requires a priority treatment for these prepayment customers and daily</p>

<p>operation of a “thin meter” prepayment solution. What service level do suppliers require for the thin prepayment solution?</p> <ul style="list-style-type: none"> • 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? 	<p>reads must be made available to the supplier.</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 providing and maintaining the IHD and what are the reasons for your preference: The Customer; The Supplier; or Network company? • 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>The availability of energy data inside customer premises is considered a key-point to allow customers optimise their consumption. Probably, making available such data directly through devices already used by customers (i.e. PC, TV) and properly connected to the meter could be a more effective way to do it, also in terms of cost. Refer to Q3 for different in-home service levels.</p>
<p>Q7. Respondents are invited to submit any comments or views on the issue of</p>	<p>High data security must be assured by encryption and</p>

<p>data ownership or data security relating to smart metering.</p>	<p>authentication at all levels: access to the meter, communications between the meter and the concentrator, access to the concentrator, communications to the central systems, etc.</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>We agree. The data should be made available by the supplier to vulnerable customers in an adequate manner.</p>
<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? • 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>For poly-phase meters, an embedded power switch should also be considered.</p> <p>In general, powerline communications is the most cost effective solution for smart metering.</p> <p>The messages to be shown in meter display should be programmable.</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>In our opinion, leveraging on the smart metering infrastructure for electricity meters to read out gas meters make economically sense, especially in the case of a smart metering infrastructure based on powerline communications. However, the gas meters must communicate to the e-meters via a short-range radio link (e.g. using Zigbee).</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 	<p>For security reasons, limiting the communications between the IHD and the meters to “one-directional communications” is important. Concerning the communication protocols, some of the powerline</p>

<p>would drive two way communications? <ul style="list-style-type: none"> • 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>	<p>communications protocols currently being standardised on European level already include communications between the meter and the IHD (example: the METERS AND MORE protocol suite www.metersandmore.eu) Basically the data to be provided to customers should be the one available in the meter properly elaborated and shown in an user-friendly way.</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 their any additional functionality required to support the “thin prepayment” solution?</p>	<p>A two-way communication between the meter and IHD could be a very effective functionality towards a full interactive Smart Grids. It has to be designed in order to not impact the core business activities.</p>
<p>Q13. Respondents are invited to give their views on the additional functionality scenario C. In particular: <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>	<p>Especially the integration of the power control switch in the meter, the possibility of block tariffs and the measurement of energy in both directions are important.</p> <p>For Electric Vehicles recharging solution, the smart metering infrastructure should be applied but managed through different system compliant with specific EV requirements.</p>
<p>Q14. Respondents are invited to give their views on the high level implementation timelines outlined above. In particular: <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? </p>	<p>It is important to shorten as much as possible the time of the roll-out. In our opinion the proposed timetable is not fast enough. Overall benefits of smart-metering like peak-load management can only be achieved when there is a critical number of meters installed. Technology is already available and mature (as demonstrated by</p>

<ul style="list-style-type: none"> • 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>the finished mass roll-out in Italy, and the ongoing mass roll-out by Endesa in Spain). A more reasonable time table should, for example, finish by 2015 or 2016.</p> <p>Customer education is very important and should be done locally in parallel to the actual roll-out plan.</p>

