



Consultation on Proposed National Rollout of Electricity and Gas Smart Metering

RESPONSE FROM: <<tictoc platforms ltd.>>

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RESPONSES TO:	Gary Martin gmartin@cer.ie

CER – Information Page

Abstract:

This consultation outlines the proposed decision by the CER to proceed with the national rollout of electricity and gas smart metering to all residential consumers and a significant proportion of small-to-medium enterprise (SME) consumers. This proposed decision is based on the positive results of the recently completed electricity and gas smart metering trials and associated cost-benefit analyses.

The consultation outlines the proposed high level design, functionality and implementation approach of the national smart metering rollout and invites feedback on these proposals.

Target Audience:

This paper is for the attention of members of the public, the energy industry, energy consumers and all interested parties.

Responses to this consultation should be returned by **Tuesday 13th December 2011** via email, post or fax and marked for the attention of Gary Martin (gmartin@cer.ie) at the CER.

The CER intends to publish all submissions received. Respondents who do not wish part of their submission to be published should mark this area clearly and separately or enclose it in an Appendix, stating the rationale for not publishing this part of their comments.

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.

Background to tictoc

tictoc is an IT-based service community platform that incentivises better use and consumption of electrical energy by consumers and by the private and public sectors. Tictoc offers energy services through a community platform. A type of specialised Enterprise Resource Planning application (ERP) for the energy sectors, offering a range of services providing **Cost-effective energy efficiency**. Information-based energy management (IBEM) applications that we see leading to increased customer engagement and sustained energy savings.

The full effect of our service offering will excel in a fully integrated smart-grid and an Advanced Meter Infrastructure AMI, many of the applications will need smart meters primarily to record accurate data to complete and implement an **energy payments application**. However in 2012 tictoc seek to test and simulate a number of the tictoc applications in fitting with phase 2 of the National AMI rollout.

tictoc's primary applications for testing in 2012:

- (a) Dynamic Time of use tariffs;
- (b) Incentivised Demand Response Management;
- (c) IHD application – (integrated to smart phone and internet application);
- (d) Enhanced and/or Interactive billing/profile applications;
- (e) EV charging applications.

If you require any clarification of our responses to the Consultation please feel free to contact us at any time to discuss.

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Appendix A: 'Quick Response' Template for Consultation on National Rollout of Electricity and Gas Smart Metering (CER11191)

Question	Yes	No	Comments
<p>Q1. Respondents are invited to comment on the proposed decision by the CER to proceed with the national rollout of electricity and gas smart metering as outlined in Section 2. Are you in favour of this proposal? Outline reasons for agreement or disagreement.</p>	YES		<p>Not only for the efficiency that will occur in the roll out of smart meters. But promotion of new energy services that will arise in this emerging sector, promote Smarter Energy.</p> <p>This opportunity and design phase should engage with an inevitable Smart Water meter roll out.</p>
<p>Q2. Respondents are invited to comment on the proposed objectives of the National Smart Meter Programme outlined in Section 3. Are you in favour of the proposals? Outline reasons for agreement or disagreement.</p>	YES		<p>1. More responsive demand can improve system efficiency and reduce costs. More price-responsive demand may help to mitigate market power concerns in restructured wholesale generation markets by reducing the profitability of price increases. In addition, making their own real-time electricity usage more visible to consumers may complement energy conservation goals.</p> <p>2. Demand response and customer engagement programs and transition policies to dynamic pricing tariffs will be critical to creating responsive demand and realizing the full potential of advanced metering infrastructure (AMI) investments.</p> <p>Such demand response incentives may have an effect on the System Marginal price of the wholesale market. Tictoc stresses the importance of addressing this issue with SEM-O at the design stage of the AMI rollout. A high level suggestion would be to create a portfolio including intermittent resources with Demand response aggregation.</p> <p>3. Increased penetration of renewable/intermittent resources</p>

		<p>require more responsive demand incentives. Third party aggregators should be able to participate in the market, to facilitate the integration of smaller Distributed energy resources.</p> <p>4. Consumer education will be the key to creating new customer experiences. Tictoc sees energy as a lifestyle product, customising a menu of tariff options and incentives. A well-designed and well-executed customer engagement program and tariff transition policies are needed to avoid customer backlash to AMI technology and dynamic pricing plans. Retail competition, where implemented appropriately, may facilitate dynamic pricing.</p> <p>5. Innovative charging tariffs related to intermittent resources for EV's. Mobility services may be more easily integrated to the EV sectors, as car sharing, similar to the successful Dublin and European Bike scheme.</p> <p>6. We should not dismiss the roll out of water metering.</p>
<p>Q3. Respondents are invited to comment on the proposed working assumptions outlined in Section 4 relating to data ownership, display and provision. Are you in favour of the proposals? Outline reasons for agreement or disagreement.</p>		<p>1. With the proposed time scale and the AMI to be rolled out in 2018 – 20 we should assume the collection of real-time data will be possible to acquire with current advances in ITC. Half hourly/hourly should be more than enough for consumer access.</p> <p>2. Data should be classed in categories: Operationally data and consumption data; it should be noted that this data should not be limited to one type of organisation or one type of use. These data sets and real-time visibility into the state of the assets through out he distribution system should be accessible by third parties providing energy efficiency services subject to licence and regulation.</p> <p>3. Energy statements, IHD's, smart phone and web applications should be seamlessly integrated for consumer's ease of access</p>

		<p>and habitual tendencies.</p> <p>4. Billing has a whole new meaning with AMI. <i>In response to "4c. The CER is proposing to mandate time of use tariffs for all electricity consumers on smart metering. Detailed proposals will be developed during the Design stage."</i> Tictoc understands the importance of controlling price swings, but insist that 'mandated time of use tariffs' shall include margins for demand response and intermittent distributed generation.</p> <p>5. Pre-payment solutions offer whole new service experiences and payment interactions. A number of these should be tested during the design phase of AMI implementation.</p> <p>6. Tictoc platforms sees the advantage of IHD's in creating savings and grid efficiency, however we question the artefact, and question its longevity in the household as consumer electronic products advance. There are numerous IHD's on the market, the products' features are clear, but the position in the household is not, and after time a certain novelty value diminishes – with small displays and limited interaction appeal (as compared to the most basic features of a low spec telephone or tablet - in 2014). In its specification, the IHD should have a large interface (easy to read or understand from a distance or glance), not requiring the user to pick it up to engage. It should be observed the IHD is a secondary household electronic; crying babies, television, cooking take prior engagement. The design and education of where the IHD is situated in the house may prove fundamental in the success in their uptake and use. Note the observation during the trials of the functionality of the 'fridge magnet' displaying TOU tariffs.</p> <p>7. Foremost attention should be given to cyber security by all</p>
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			parties, Utilities, suppliers, third party vendors and the Energy regulator. Tictoc would propose the Regulator should designate a single agency designated to oversee the security to AMI and communicate to all relevant parties.
Q4. Respondents are invited to comment on the proposals outlined in Section 5.2.1 in relation to the electricity smart meter functionality requirements. Are you in favour of the proposals? Outline reasons for agreement or disagreement.	YES		<p>Noting that half hourly profile data is more than adequate for consumers needs. Data should be recorded as close to real-time, every 1 – 5 seconds. Time series data with time and quantity stamp, should be logged. Advancements in ITC should be able to cater for this data to be captured by the time of AMI roll out. This will assist with the management of intermittent resources and demand response management.</p> <p>This will provide accuracy for an energy payments applications platform.</p> <p>The Data collection systems should be accessed by licensed parties providing energy ancillary services.</p>
Q5. Respondents are invited to comment on the proposals outlined in Section 5.2.2 in relation to the gas smart meter functionality requirements. Are you in favour of the proposals? Outline reasons for agreement or disagreement.	YES		We have no comment.
Q6. Respondents are invited to comment on the proposals outlined in Section 5.2.3 in relation to the Wide Area Network (WAN) functionality and technology. Are you in favour of the proposals? Outline reasons for agreement or disagreement.	YES		We have no comment.

<p>Q7. Respondents are invited to comment on the proposals outlined in Section 5.2.5 in relation to the Home Area Network (HAN) functionality and technology. Are you in favour of the proposals? Outline reasons for agreement or disagreement.</p>	<p>YES</p>		<p>The MDMS should be accessed by licensed parties providing energy ancillary services.</p>
<p>Q8. Respondents are invited to comment on the proposals outlined in Section 5.3.1 in relation to the procurement model. Are you in favour of the proposals? In particular, which of the two IHD provision responsibility options outlined do you prefer? Outline reasons for agreement or disagreement.</p>			<p><u>Proposed model for procurement and management of the wide area network (WAN) and back-end IT systems (including meter data management system (MDMS) and Web portal):</u> Tictoc see these will be procured as separate or combined lots and on an ownership or service provision basis. This will allow for the introduction of new innovative demand response programs. We see phase 2 of the proposal as an opportunity to test these demand response systems.</p> <p><u>Regarding responsibility for procurement, installation and maintenance of IHDs either:</u> Tictoc see electricity suppliers will be responsible for procurement for their customers. There are already a number of IHD's on the market – if we see 'Energy' as a lifestyle product, it will fundamental the consumer will have a choice of IHD – perhaps choosing the 'free IHD' supplied by the Energy supplier, or choosing a more advanced IHD for an additional cost to the customer, or even different options for different price monthly plans. Tictoc sees the IHD as an application and integral part of the HAN, and that it must have the ability to seamlessly communicate to customers profile on smart phone, tablet and web application.</p>

Q9. Respondents are invited to comment on the proposals outlined in Section 6 relating to the implementation approach and timelines. Are you in favour of the proposals? Outline reasons for agreement or disagreement.	YES		<p>Yes the phase 2 will be important to set out new ways we (the consumer) perceives and interacts with new 'energy services'.</p> <p>As efficiencies are being tested globally – we understand that timelines can be accelerated accordingly.</p>

END