



14th January 2011

Aoife Doyle,
Commission for Energy Regulation,
The Exchange,
Belgard Square North,
Tallaght,
Dublin 24.

Via email

Dear Aoife,

Endesa Ireland welcomes the opportunity to respond to the Second Consultation on Possible National Rollout Scenarios for the Smart Metering Cost Benefit Analysis.

Endesa Ireland's comments are set out in the table below, if you have any queries please do not hesitate to contact me.

Question	Yes	No	Comments
Section 2.0 – Objectives			
Q1. Respondents are invited to comment on the proposed objectives of the National Smart Meter Programme outlined in Section 2. Are you in favour of the proposals? Outline reasons for agreement or disagreement.			In general we agree with the objectives. Concerning peak load management, we agree that pricing signals should be handled via flexible and customizable time-of-use-tariffs. In addition, power control should also be integrated into the smart meters (as is done in other countries like Spain or Italy), in order to facilitate peak load management. With regards to objective 5 “Improve Network Services”, phase detection should be included, in order to allow for optimization of load balancing. Suggest including an additional objective 7 “Selection of technology in

		<p>order to optimise operation and operational expenses, and to enable smart grids”. In this new objective, important aspects such as self-detection of meters upon installation (plug-and-play), automatic adaptation to network topology changes, energy balances, phase detection, integration with smart grids, alarm and event correlation to quickly isolate incidents etc should be considered.</p>
<p>Section 3.0 - Ownership, Display and Provision of Information</p>		
<p>Q2. Respondents are invited to comment on the proposed working assumptions outlined in Section 3 relating to data ownership, display and provision. Are you in favour of the proposals? Outline reasons for agreement or disagreement.</p>		<p>In general we agree with the objectives. As regards data granularity, Endesa Ireland suggests that for a controlled set of sample customers (not for mass reading) registering a half-hourly or even quarter-hourly load curve of active and reactive energy can be important for profiling. Monthly access to this data should be sufficient.</p> <p>Concerning the data access for consumers, strong security and data protection mechanisms should be enforced.</p> <p>Concerning the In-Home-Data it is important to guarantee data security, data protection and encryption key management between the IHD and the meters allowing safe bi-directional communications.</p>
<p>Section 4.0 - Smart Metering System Functionality</p>		
<p>Q3. Respondents are invited to comment on the proposed working assumptions outlined in</p>		<p>Concerning the ToU functionality, it should allow full flexibility, and for domestic customers up to 6 freely configurable periods, including the</p>

<p>Section 4.2 in relation to the smart metering functionality requirements. Are you in favour of the proposals? Outline reasons for agreement or disagreement.</p>			<p>differentiation of special periods, such as week-ends or national holidays. In addition, if power control is adopted, to limit the maximum demandable power, for each period, the limit for power control should also be freely configurable. The division of the day into (at least) 48 half-hourly intervals is reasonable.</p>
<p>Q4. Respondents are invited to comment on the proposed working assumptions outlined in Section 4.3.1.1 in relation to the Wide Area Network (WAN) functionality and technology. Are you in favour of the proposals? Outline reasons for agreement or disagreement.</p>			<p>A fourth scenario should be taken into account: “DLC (all)”, which might have a higher investment cost in very low-density areas, due to the cost of the concentrator to be installed at the transformer stations, but uses an existing infrastructure, allows for more cost-efficient operation and lower maintenance costs. In addition, certain functionalities, especially concerning network services, are much easier to achieve using DLC, for example energy balances and phase detection. The concentrators are also a relevant element for future smart grids services.</p> <p>Concerning next generation DLC, not only OFDM PLC should be considered. Also other open and robust DLC communication technologies, currently in the process of being standardized by European Standardization Organisations, like BPSK-based “METERS AND MORE”-technology (www.metersandmore.eu) should be mentioned. The most important aspect, according to the experience of Endesa, is robustness and openness of the DLC protocol.</p>

		<p>For DLC, the assumption that the communications technology will last and will not have to be renewed due to obsolescence or due to future requirement by telco operators, seems reasonable. For GPRS, the situation is not as clear.</p> <p>In general, according to Endesa's experience of the current roll-out of 13,000,000 new-generation smart meters, with very similar functionality, in Spain, and the experience of Enel with over 32 million meters in operation in Italy, DLC is a very cost-efficient and reliable solution.</p>
<p>Q5. Respondents are invited to comment on the proposed working assumptions outlined in Section 4.3.1.2 in relation to the Wide Area Network (WAN) provision and management model. Are you in favour of the proposals? Outline reasons for agreement or disagreement.</p>		<p>The most suitable model is that ESB Networks provide a common infrastructure that facilitates both electricity and gas communications.</p> <p>The distribution grid can easily be a part of the infrastructure for both electricity and gas communications.</p>
<p>Q6. Respondents are invited to comment on the proposed working assumptions outlined in Section 4.3.2 in relation to the Home Area Network (HAN). Are you in favour of the proposals? Outline reasons for agreement or</p>		<p>The HAN communications can be done by DLC, extending DLC into the home. This makes sense especially if the smart metering infrastructure is also based on DLC communications. For this reason, a third scenario should be added, based on DLC HAN communications.</p> <p>In addition, it is fundamental to involve</p>

disagreement.			in this kind of value added service definition and design other service providers such as “whitegood” suppliers, telco companies, etc
Section 5.0 - Implementation			
<p>Q7. Respondents are invited to comment on the proposed working assumptions outlined in Section 5 relating to the implementation approach and timelines. Are you in favour of the proposals? Outline reasons for agreement or disagreement.</p>			<p>In general the proposed work items and phases seem reasonable, but it is important to shorten the rollout timeframe as much as possible. It is Endesa Ireland’s opinion that the timeframe set out is too long, as the benefits of smart metering, such as peak load management, can be better achieved where a critical number of meters are installed. Technology is already available and mature (as demonstrated by the completed roll-out in Italy and the ongoing roll-out by Endesa in Spain).</p> <p>Endesa Ireland considers that it would be reasonable to aim to have the roll-out completed by 2015 or 2016.</p>

Regards,



Deirdre Powers
Director, Energy Management