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

25/11/2013

Re: CER/13/240, ESB Network's proposed electric vehicle pilot

Dear Deirdre ,

Smart Grid Ireland welcomes the opportunity to submit a response to your consultation CER/13/240 on ESB Network's proposed electric vehicle pilot.

The relevance of Electric vehicles to smart grids is well established, as is the potential contribution to decarbonisation of the transport system. We welcome the approach being taken by CER in not only recognising the importance of EVs in this context , but also having the foresight to provide for RD&D expenditure in the current price review. If anything, the importance and potential contribution of EVs to these matters has increased in recent years as have the attendant concerns of distribution system operators across the world on the potential interactions with the electricity system. We would therefore support the CER view that additional DUOS allowances should be made available to facilitate the EV pilot.

In support of these points, some international views are of relevance:

"The European Commission adopted a roadmap of 40 concrete initiatives for the next decade to build a competitive transport system that will increase mobility, remove major barriers in key areas and fuel growth and employment. At the same time, the proposals will dramatically reduce Europe's dependence on imported oil and cut carbon emissions in transport by 60% by 2050.

By 2050, key goals will include:

•*No more conventionally-fuelled cars in cities."*

<http://ec.europa.eu/transport/themes/strategies/2011_white_paper_en.htm>

*"All scenarios show **electricity will have to play a much greater role** than now (almost doubling its share in final energy demand to 36-39% in 2050) and will have to contribute to the decarbonisation of transport and heating/cooling (see graph 2). Electricity could provide around 65% of energy demand by passenger cars and light duty vehicles, as shown in all decarbonisation scenarios."*

Energy Roadmap 2050 http://ec.europa.eu/energy/energy2020/roadmap/index_en.htm

"Electric vehicles1 (EVs) could play a central role in decarbonising road transport. But this new type of electricity load will need careful management. Although electricity needs for EVs are likely to remain small relative to overall load in most regions for many years to come, they could have a much bigger impact on peak load as motorists seek to recharge their batteries during the evening. Electricity suppliers will need to anticipate the long-term investments that will be needed to respond to this emerging trend. Recent technological advances in electricity distribution and load management that make use of information and communications technologies, referred to as "smart grids", promise to facilitate the integration of EVs into electricity load and to lower costs.

Electricity market structures and regulatory frameworks will need to adapt to facilitate the demonstration and commercial deployment of smart grids, including the specific technologies needed to make G2V and V2G technically and commercially viable. It is vital that regulatory frameworks be adapted to allow tariffs to be set to provide incentives for electricity transmission and distribution companies to invest in appropriate smart-grid technologies, for system operators to take decisions that ensure economically efficient operation of the entire system and for EV owners to optimise G2V and V2G load."
OECD, International Transport Forum, paper 2012-02

It is clear from the references quoted above that preparing for the deployment of large numbers of electric vehicles is of the utmost importance. The arrival of the electric vehicle is not just about a change of fuel. It involves a myriad of interactions, many of them with unknown consequences; e.g. there are cultural and behavioural issues; driving habits and patterns; urban / inter-urban / rural solutions; technical interactions with existing electrical infrastructure; interaction with market rules for energy trading; data security; interoperability; opportunities for integration of renewable generation; system services using storage capacities and V2G technology etc. The importance of a thorough and comprehensive pilot cannot therefore be overstated.

Just as important from an Ireland Inc. point of view is the positioning of our country to the forefront of EV systems development. Already, from the initial work undertaken by ESB Networks, Ireland has been involved in several leading-edge European FP7 projects on electric vehicles. These developments are central to the initiative in the government strategy for jobs for the definition of a Test Bed Specification for Smart Grids and Cities. The potential for job creation is underlined by the fact that a number of Irish companies have already begun to develop products and services based on the initial work of the pilot.

In conclusion therefore, we would recommend that CER, in recognition of the scale of the change being undertaken and potential for significant forward societal benefits, would agree to the funding of the proposed EV pilot to full extent of the amount requested.

Please do not hesitate to contact me, if you wish to discuss this response further.

Yours sincerely

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Smart Grid Ireland is a not for profit, all-island advocacy network, whose mission is to facilitate the delivery of a secure, affordable and sustainable energy infrastructure, positioning Ireland at the forefront of global smart grid development, to create long-term economic wealth and employment for the people of Ireland.