6th November 2006

Paul Hogan
Commission for Energy Regulation
Plaza House
Belgard Road
Tallaght
Dublin 24

Our Ref: R2006846

Response to CER paper "Arrangements for Micro Generation" (CER/06/190)

Dear Paul

EirGrid welcomes the opportunity to comment on the matters raised for input in the Commission's consultation paper on the "Arrangements for Micro Generation" (CER/06/190). EirGrid is generally positive to increased micro generation which has potential, if employed using appropriate technology and with the appropriate degree of penetration, to reduce the overall requirements for centrally dispatchable plant and network investment. However, EirGrid wishes to point out that there may be some technical issues associated with greater penetration of micro generation in the future, and indeed that further micro generation may give rise to higher rather than lower costs in the short run. If there were to be a significant increase in micro generation, EirGrid may need to look at the impact on the Transmission System. EirGrid believes that significant increases could potentially impact on network planning, system operation and dispatch.

In order to be able to take account of any implications, including planning for generation and system adequacy in the most efficient manner, it is important that EirGrid, in its role as Transmission System Operator, be aware at any point in time how much micro generation is currently installed, how much energy it produces (historical records) and forecasts for future levels of micro generation and its expected running pattern(s). It is most likely that ESB Networks – in their role as Distribution System Operator and also as Meter Registration System Operator – will be in the best position to be able to provide this information and EirGrid wishes to see a formal requirement for this data to be made available at an early stage in planning for increased micro-generation so the necessary recording systems can be put in place

EirGrid also believes that the ESB Networks proposal to set initial penetration limits of 40% of the total installed micro generation capacity on the existing low voltage substation would benefit from a more detailed breakdown of the 40% limit. EirGrid

believes it would be useful to understand the overall number of MW that could be expected to be connected if this limit were met. This would aid the industry in assessing whether the limit is set too high or low from a system wide perspective. It would also be useful to understand how this amount of MW is made up between the different forms of micro-generation e.g. wind, solar, CHP etc. It will be important for the Transmission System Operator to understand the types of generation likely to be installed in order to assess any measures necessary for the efficient development of the transmission system to accommodate significant amounts of micro-generation.

In addition EirGrid believes that careful consideration should be given to the precise treatment of micro generation units under import and export from both a settlement and metering perspective to ensure that no perverse incentives or unintended consequences arise.

One of EirGrid's most important statutory functions is in ensuring the overall safety and stability of the electricity transmission system. Given this EirGrid is of the opinion that the over/under voltage settings of 10% as set out in Table 4.1 - Micro Generation Interface Setting (Ireland Specific) may need to be reviewed. For example, the micro generators could trip as a result of capacitor switching. Capacitor banks are sized to ensure that the maximum voltage step change on the 110 kV Transmission System does not exceed 10% when the capacitor banks are being switched. In the case of wind farms, the Grid Code requires wind farms to remain connected for step changes in Transmission System voltage of up to 10 %. Voltage step changes that occur on the Transmission System result in similar changes on the underlying distribution network, thus distribution connected wind farms must also be capable of meeting this requirement. During outages on the Transmission System, then the voltage step changes resulting from capacitor bank switching can be larger than the steps experienced with a fully intact network. Perhaps a setting for voltage step changes of approximately 12% might be more appropriate for the over/under voltage trip settings. EirGrid would be happy to discuss the appropriate technical specifications and parameters with the Commission.

We trust that in developing the policies for the accommodation of increased micro generation the Commission will take on board the comments made by EirGrid in this response. EirGrid looks forward to working with the Commission in their ongoing development.

Yours sincerely,

Lynda Fitzpatrick
Commercial and Regulation
EirGrid