

OPERATIONAL STUDIES ON RENEWABLE POWER

FUTURE PUBLISHED BY EIRGRID

***Friday, 11 June, 2010* – A number of studies published today contain new information which will assist in developing operational strategies to increase the amount of wind generation connected to the power systems of Ireland and Northern Ireland.**

The *Facilitation of Renewables* report published today by EirGrid (Ireland's grid operator) and SONI (System Operator of Northern Ireland) contains analysis and research which is the first of its kind in this area.

The report contains the results of 18 months of research and analysis of the power systems of Ireland and Northern Ireland with high instantaneous penetrations of wind.

“Already, at times, the Irish system has been operated with levels of up to 50 per cent generation from renewables. These studies are the first of their kind and will help enable us to develop operational strategies to achieve Ireland’s renewable energy targets,” said EirGrid Chief Executive Dermot Byrne commenting on the report.

The studies are the first of a kind to analyse the technical challenges of high instantaneous penetrations of wind on a complete power system and have provided unprecedented results. This will allow the development of a secure reliable operational strategy by 2020 consistent with the policy targets. There are a number of changes required to industry practice to achieve these targets efficiently which are also highlighted. Achieving the high levels of renewable power envisaged will require upgraded grid networks; the installation of technical equipment on the distribution network and by generators; control, capability and response measures; and operational strategies.

The studies conducted by EirGrid and SONI in collaboration with internationally recognised consultancy firms – Siemens-PTI, Ecar and DigSilent-ECOFYS – along with independent industry peer reviewers (Professor Mark O'Malley, UCD and Mr. Peter Harte, SWS Energy).

Ireland and Northern Ireland have identified ambitious targets for electricity generated from renewable resources by 2020 which will predominantly be achieved with windfarms.

Due to the technical characteristics of windfarms the increasing instantaneous penetration will alter the dynamic characteristics of the power system. These changes to the characteristics need to be understood in order to develop an operational strategy to manage the power system in a secure reliable manner consistent and complementary with the renewable targets.

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Editors note:

- Early in 2009, EirGrid and SONI (System Operator Northern Ireland) initiated a suite of studies – entitled the Facilitation of Renewables – designed to examine the technical challenges with integrating significant volumes of windfarms onto the power system of Ireland and Northern Ireland.
- **EirGrid plc** is a leading energy company committed to delivering high quality services in Ireland and Northern Ireland. The Group includes the EirGrid Transmission System Operator (TSO) business in Ireland; System Operator for Northern Ireland (SONI), the licenced TSO in Northern Ireland; and the Single Electricity Market Operator (SEMO) which operates the wholesale power market on the island of Ireland.

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