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INTRODUCTION



1 INTRODUCTION

ESB National Grid, in its capacity as the Transmission System Operator (TSO¹), has prepared this Forecast Statement, covering the period mid 2003 to end 2009, in accordance with Section 38 of the Electricity Regulation Act, 1999 (the Act).

Forecast Statement 2003-2009 presents factual information on, and projections of, electricity demand, generation, the transmission network and interconnection with other electricity systems. In addition, it includes the results of analyses that indicate the most suitable locations for the connection of new generation or customer demand.

The analyses were based on the forecasts described in the early chapters, and detailed in the appendices. When considering the results of the various analyses, readers are recommended to review carefully the assumptions on which the Forecast Statement is based.

This statement also contains information about the TSO's network development plans. These plans may change from time to time and should, therefore, be confirmed with the TSO before any action is taken based on the content of this document.

The TSO published its *Generation Adequacy Report 2003-2009* (GAR) in November 2002. That document deals with the requirement for additional generation capacity to meet forecast demand over the seven-year period to 2009. The GAR complements the information presented in *Forecast Statement 2003-2009*.

1.1 FORM OF THE FORECAST STATEMENT

In August 2001, ESB National Grid published its first Forecast Statement for the years 2001/2 to 2007/8, which dealt primarily with the capabilities of the transmission system to accommodate additional power transfers, and a statement of opportunity for new demand and generation connections. This was followed in February 2002 by a *Forecast Statement 2001/2-2007/8 Supplement*, which presented details of the electrical characteristics of the network, demand forecasts and power flows. The information provided in those two documents has been updated and presented in this single document *Forecast Statement 2003-2009*.

Chapters 2 to 5 describe the forecasts of demand and connected generation, the existing transmission network, planned developments, and interconnection. The assumptions presented in these chapters form the basis of the analyses of transfer capabilities, power flows and short circuit levels, reported in later chapters. While the assumptions represent a reasonable view of the future, the reader should note that variations in these values could significantly alter the available opportunities as reported.

¹ The responsibility for producing Forecast Statements will transfer to EirGrid (see Glossary in Appendix I) in accordance with its licence obligations.

The results of the analyses and opportunity for generation and demand are discussed in Chapters 6 to 9. The results are presented for three specific years, each incorporating the summer and following winter:

- 2003 (summer² 2003 and winter 2003/4);
- 2006 (by which time significant Grid reinforcements are expected to be in place);
- 2009 (the final year of the seven-year period).

Chapter 10 includes a list of references. The appendices include tables and graphical data, in addition to details of methodologies used in the preparation of this statement.

The Commission for Energy Regulation (CER) has approved the form of this *Forecast Statement 2003-2009*, as required under Section 38 of the Act.

1.2 IMPROVEMENTS IN THIS FORECAST STATEMENT

In an effort to improve the statement and make it more meaningful, all recipients of the original Forecast Statement were asked to comment on a proposal to modify the method of analysis (see Section 7.1). The TSO is grateful for the responses and the additional comments received. On the basis of these responses, other feedback, and the TSO's own initiative, *Forecast Statement 2003-2009* contains a number of improvements, including:

- Separate analyses of generation and demand opportunities;
- The inclusion of additional 220kV and 110kV stations in the analyses of generation and demand opportunities;
- The inclusion of base case generation dispatches in tables and on the power flow diagrams in the appendices;
- Separate treatment of interconnection;
- The presentation of minimum load conditions in bus load tables and power flow diagrams;
- The inclusion of short circuit levels at minimum demand conditions;
- The grouping of all changes associated with particular network projects in the table of network changes;
- The grouping of the descriptions of network changes, in Tables B-7 and B-8 in Appendix B, into a number of categories: generation connections, demand connections, and network reinforcements.

² In this Forecast Statement "summer" refers to the period March to September, inclusive; "winter" refers to the period October to the following February, inclusive.

1.3 DATA MANAGEMENT

In preparing the Forecast Statement, the TSO froze all data relating to demand, generation and the Grid in August 2002, to allow analyses to commence.

At the time of the data freeze the TSO expected that a certain number of projects would be completed by March 2003, in advance of the issue of this statement. These projects were included in the analysis for summer 2003, and were listed in characteristics tables as part of the existing network. However, some will not now be completed until later this year. While the delays may impact on the short-term results, they do not alter the overall messages and statements of opportunity. The delayed projects are listed in Table B-8(a) in Appendix B.

Since the data freeze date, a number of changes in projections have emerged:

- ESB has closed the small peat-burning generation unit at Cahirciveen. In the analyses it was assumed to close in late 2003.
- Airtricity has signed a connection agreement with the TSO for an off-shore wind farm near Arklow in Co.Wicklow. It plans to connect 60MW to Arklow at 110kV. Airtricity signed a separate agreement with the Distribution System Operator (DSO) for the connection of 25MW from the same wind farm to Arklow at 38kV.
- Airtricity has signed a connection agreement with the TSO for a 43.6MW on-shore wind farm at Meenalaban, near Letterkenny in Co.Donegal. Connection will involve the looping of the Cathaleen's Fall-Letterkenny 110kV line into a new switching station, from which the wind farm will be tailed.
- The TSO has planned to refurbish a number of 110kV lines. The planned work includes upgrading the lines at little or no additional cost. The 110kV lines in question are Binbane-Cathaleen's Fall, Dundalk-Louth, Aughinish-Monateen, Limerick-Monateen, Kilbarry-Mallow, Ennis-Shannonbridge, Lanesboro-Mullingar, and Newbridge-Portlaoise.
- The TSO has planned to install a 30Mvar capacitor in Athlone. At the time of the data-freeze, it was expected that a 15Mvar capacitor would be installed.

The impact of these changes is discussed in Section 7.7.