



EIRGRID AT A GLANCE

About the new Transmission System Operator





EirGrid plc is the new state-owned company which has been established to take on the role and responsibilities of Transmission System Operator in the Republic of Ireland as well as Market Operator of the wholesale trading system.

It provides services equally and independently to all users of the electricity system. This includes all generators, suppliers and high voltage customers. The services provide by EirGrid as TSO are vital to all 2.1 million electricity customers nationally – large and small businesses, farms and homes.

EirGrid operates, develops and maintains the power system.

THE NATIONAL GRID

IRELAND'S TRANSMISSION SYSTEM

Electricity is provided through a national grid system – a network of high voltage (110,000 volts, 220,000 volts and 400,000 volts) transmission stations, power lines and cables. The system can be compared to Ireland's motorway network – delivering power to over 100 bulk transfer points or “nodes” all over Ireland where power can be taken onwards on lower voltage lines to individual customers' premises.

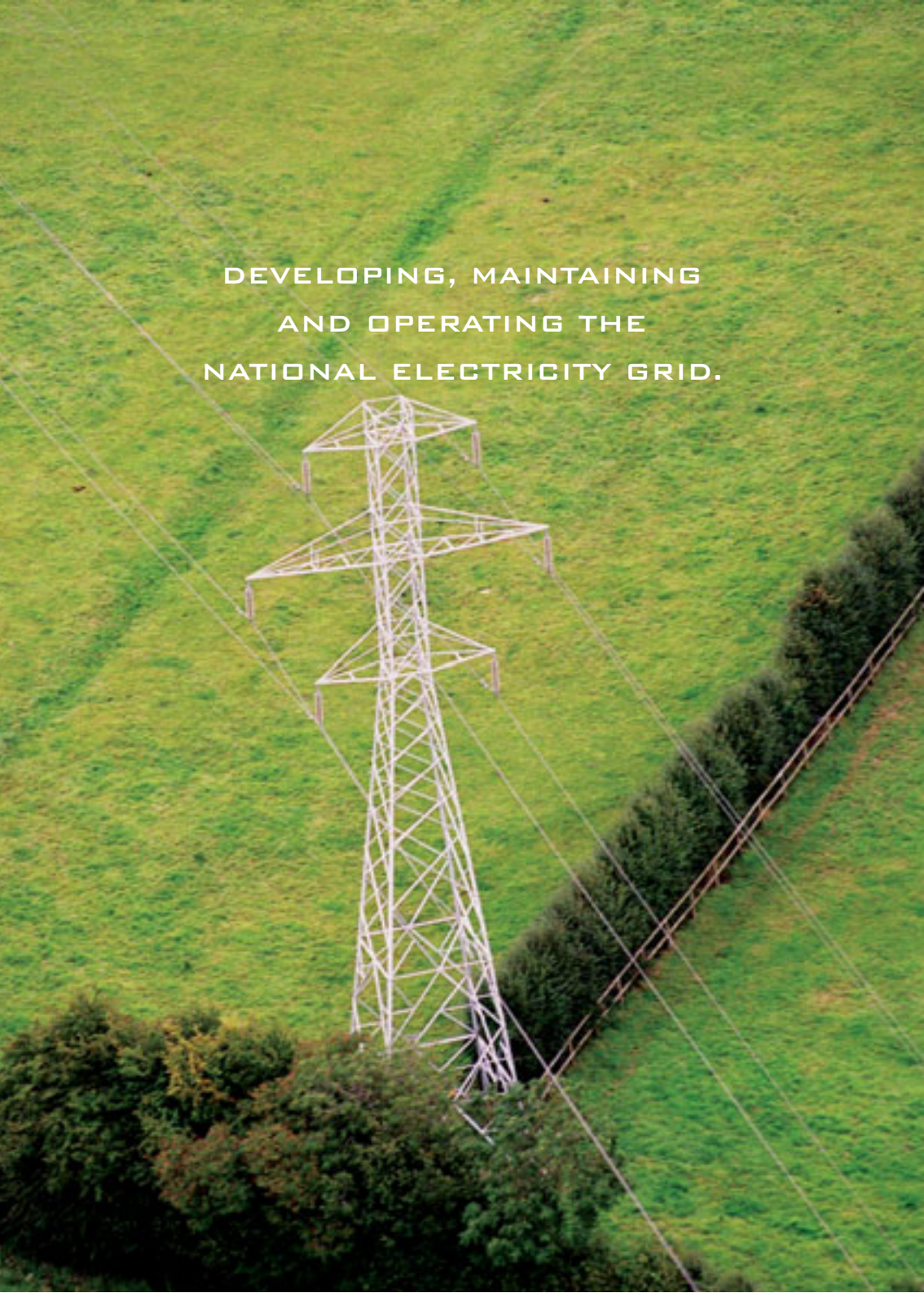
The system includes approximately 6,000 km of overhead lines and underground cables and over 100 transmission stations. High voltages are used to avoid power losses which would otherwise occur when transferring power over long distances in a lower voltage system.

Power is generated by power plants throughout the country, utilising a variety of fuel or energy sources – including gas, oil, coal, peat, hydro-electricity, wind turbines and other sources including biomass and landfill gas.



**DELIVERING QUALITY SERVICES
TO ALL ELECTRICITY CUSTOMERS,
SUPPLIERS AND GENERATORS EQUALLY**

**DEVELOPING, MAINTAINING
AND OPERATING THE
NATIONAL ELECTRICITY GRID.**

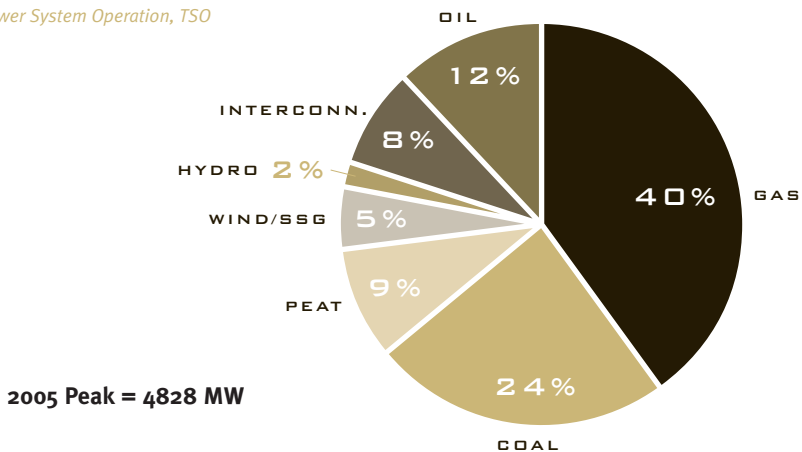


All of the major generating plants feed into the national grid and power is transmitted equally nationwide. The design ensures that power can flow freely to where it is needed and that if one power station, power line or transmission station is non-operational, whether due to a fault, for maintenance or for any other reason, there are other options or routes available.

At the transmission stations power is transferred from the grid, transformed into medium and low voltage and diverted into local lower voltage distribution systems which bring power directly to Ireland's 2.1 million domestic, commercial and industrial customers.

FUEL MIX 2005

Source: Power System Operation, TSO



SSG: Small Scale Generation

MW: MegaWatt (1,000,000 Watts)

Interconn.: Importation via north-south interconnection

BACKGROUND

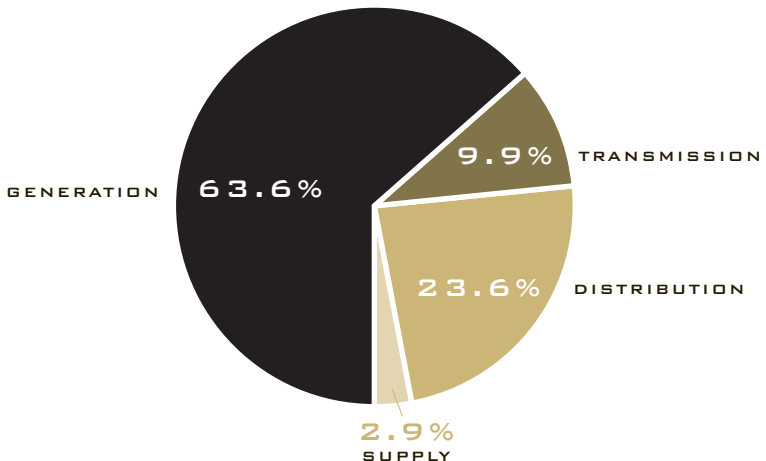
For close to 80 years electricity has played a vital role in the development of Irish society and the economy. Until deregulation in recent years, one company - ESB - was responsible for all aspects of electricity supply, from generation and transmission of high voltage power to distributing low voltage supply to end-users including sales and customer services.

Over the past two decades, however, there has been a growing desire in both the EU and Ireland to ensure that the benefits of competition are extended to the electricity supply market. In 1999 an independent body, the Commission for Energy Regulation, was established to oversee the liberalisation of Ireland's energy sector, starting with electricity.

Since then new players have been able to enter the market, whether as generators supplying power into the national grid or as suppliers selling to end-users.

The electricity market in the Republic of Ireland was initially opened to competition in 2000 when new legislation allowed the 400 largest consumers of electricity in the country to choose their electricity supplier.

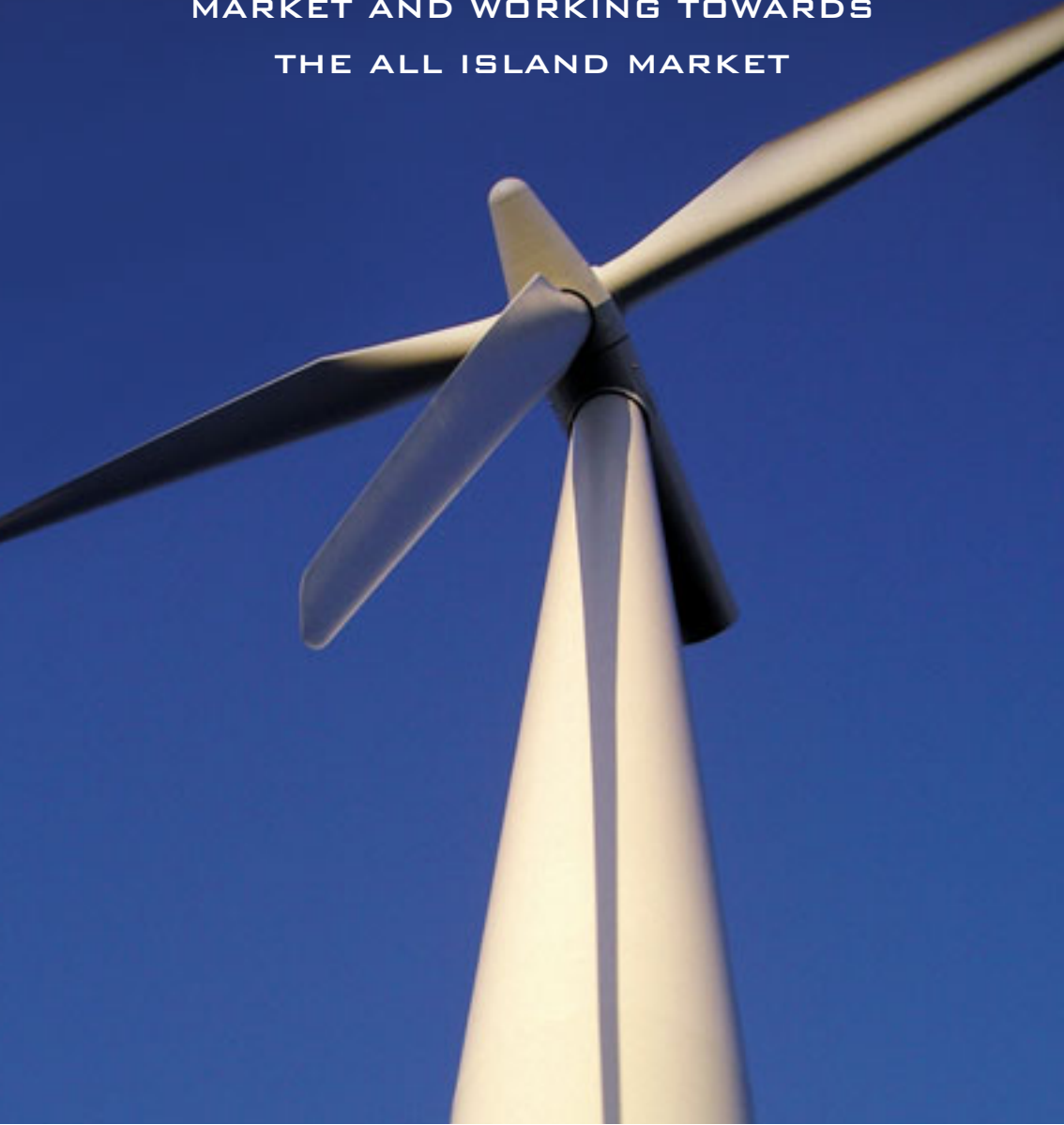
ELECTRICITY VALUE CHAIN - PROPORTION IN VARIOUS SEGMENTS OF THE INDUSTRY



PROVIDING A SAFE, SECURE,
RELIABLE, ECONOMICAL AND
EFFICIENT TRANSMISSION SYSTEM



**OPERATING THE WHOLESALE ELECTRICITY
MARKET AND WORKING TOWARDS
THE ALL ISLAND MARKET**



This was broadened to include a further 1,200 commercial customers in 2002 and then in 2005 to 12,000 customers – equal to 56% of the market in terms of electricity consumed. This has been followed by full market opening, well in advance of the European Union deadline of 2007 for all Member States.

Independent transmission operation

In 2002, as part of the deregulation arrangements for the electricity sector, ESB National Grid was “ring fenced” from the rest of the ESB and became the de facto transmission system operator, pending the vesting of EirGrid.

While ESB continues to own the electricity transmission stations, high voltage lines and cables, EirGrid is now assuming the important roles of Transmission System Operator and Market Operator of the wholesale electricity trading system. It is also working closely with the Regulators in Northern Ireland and the Republic of Ireland, and with the System Operator, Northern Ireland, on the formation of the All Island Market for Electricity in July 2007.

It is EirGrid’s job to provide systems and settlement processes which enable participants to trade in the market. EirGrid also delivers quality connection and transmission services and develops the national grid infrastructure to support the development of Ireland’s economy.

Its role is to provide essential services equally and without discrimination to all those needing connection and transmission and market services. Connections and transmission for new generators are provided in an impartial and transparent way, known as Open Access Transmission.

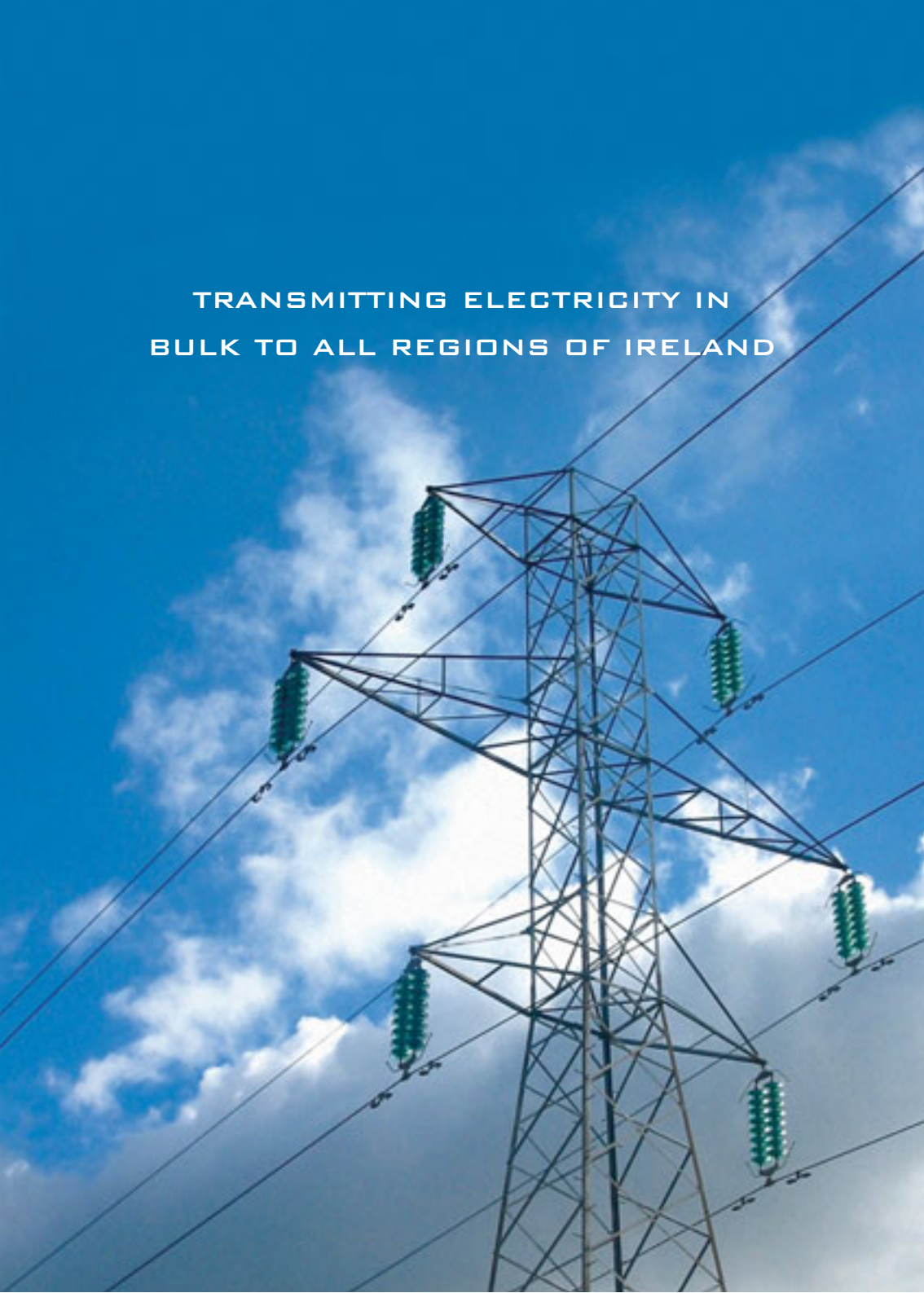
EirGrid has to balance demand and supply of power nationally, matching sales and purchases of electricity between all the participating parties and ensuring that all payments due are made.

In addition, the company’s highly skilled staff put in place and monitor protection systems to ensure system safety, security and reliability and provide information to industry players to facilitate their decision making. They also advise the Commission for Energy Regulation on security of supply issues.

EIRGRID'S DAY-TO-DAY ACTIVITIES

- + Instructing the generators and controlling the flow of power across the transmission system, ensuring that generation matches demand at all times.
- + Supplying services directly to 18 very large commercial electricity customers which receive their power at transmission voltages.
- + Supplying a range of services to the country's six electricity suppliers who either purchase power directly from generators or through the wholesale market and then sell it on to customers through the electricity networks and the electricity trading system.
- + Providing crucial transmission and connection services to approximately 30 generators, including major fossil and hydro plants owned by ESB and independent companies, as well as to a growing number of large wind farms.
- + Overseeing and directing the maintenance and construction of the transmission system by ESB under a formal Infrastructure Agreement.
- + Managing the current wholesale power market and working towards a new All-Island market.

**TRANSMITTING ELECTRICITY IN
BULK TO ALL REGIONS OF IRELAND**



FACTS AND FIGURES AT A GLANCE

EirGrid

- + State owned company, with all shares held by Department of Communications, Marine and Natural Resources and the Department of Finance.
- + Eight Board members appointed by the Minister for Communications, Marine and Natural Resources.
- + Chairperson: Bernie Gray
- + Chief Executive: Dermot Byrne
- + Turnover of almost €400 million
- + Operates a wholesale market worth in excess of €1.5 billion p.a.
- + Revenue which passes through TSO includes TUoS (transmission use of system charge) and PSO (public service obligation) payments as well as fees for connection.
- + Staff numbers: Approx 200 highly skilled staff in engineering, technical and business disciplines

The electricity system

- + 2.1 million customers all over the Republic of Ireland
- + Transmission demand customers (large industry): 18
- + 20 thermal and hydro stations are connected to the transmission system
- + 50 wind farms feed into the electricity system at different voltages
- + Maximum winter daily demand (2005/2006): 4,828MW
- + Total nominal generation: c.6,000MW
- + Length of transmission network: 6,000km
- + Number of transmission stations: over 100
- + System is connected to Northern Ireland and development of second N/S interconnector is underway





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