

## Glossary

(Note: The definitions provided in this glossary are intended solely to assist the reader in understanding the present report. They are not intended as exact legal descriptions of the terms in question, for which the reader is advised to refer to the Electricity Order, licence document etc if required.)

### *General terms*

<b>ABC/ABM</b>	Activity-based costing and activity-based management.
<b>Authorized electricity operator</b>	A person authorized to generate, transmit or supply electricity by a licence or (in the case of generation or supply) by an exemption granted under the <b>Electricity Order</b> .
<b>Authorized supply area</b>	The geographical area within which a <b>PES</b> has been authorized by its <b>PES licence</b> to supply electricity-Northern Ireland in the case of <b>NIE</b> .
<b>Authorized transmission area</b>	The geographical area within which the holder of a <b>transmission licence</b> has been authorized to transmit electricity-Northern Ireland in the case of <b>NIE</b> .
<b>Ballylumford</b>	Ballylumford power station, owned by a subsidiary of BG plc.
<b>Belfast West</b>	Belfast West power station, owned by <b>Nigen Limited</b> whose parent companies are AES Corporation of the USA and Tractebel of Belgium.
<b>BEQ</b>	Business plan and efficiency questionnaire.
<b>BPR</b>	Business process re-engineering.
<b>Bulk Supply Tariff</b>	The tariff which the <b>PPB</b> charges suppliers for bulk supplies of electricity.
<b>CAPM</b>	Capital asset pricing model.
<b>CCA</b>	Current cost accounting.
<b>CCGT</b>	Combined cycle gas turbine.
<b>CHP</b>	Combined heat and power.
<b>CML</b>	Customer minutes lost, that is the average number of minutes in a year for which a connected customer is cut off from the <b>distribution system</b> as a result of any <b>outage</b> . $CML = \text{Sum (customers off} \times \text{interruption time in minutes)}/\text{Total customer base}$ .
<b>Coolkeeragh</b>	Coolkeeragh power station, owned by Coolkeeragh Power Limited.
<b>Corporate recharges</b>	Internal charges for services provided by one <b>NIE</b> business unit to another.
<b>CoSA</b>	Cost of sales adjustment.

<b>CSC194</b>	A set of principles for the allocation of costs between separate businesses of the <b>RECs</b> (see paragraph 8.6).
<b>DCC</b>	Distribution control centre.
<b>DEA</b>	Data envelopment analysis.
<b>DED</b>	Department of Economic Development (for Northern Ireland).
<b>DG</b>	The Director General of Electricity Supply for Northern Ireland, who is also the Director General of Gas Supply for Northern Ireland.
<b>DGES</b>	The Director General of Electricity Supply (in Great Britain).
<b>DGM</b>	Dividend growth model.
<b>Eastern Electricity</b>	Eastern Electricity plc, a <b>REC</b> , owned by Energy Group plc, formerly part of Hanson plc.
<b>Electricity Order</b>	The Electricity (Northern Ireland) Order 1992, as amended.
<b>EMF</b>	Electro-magnetic field.
<b>Enabling agreement</b>	An agreement which took effect on 1 November 1995 between <b>NIE</b> and its recognized trade unions covering efficiency, flexibility and co-operation.
<b>EPS</b>	Earnings per share.
<b>ESB</b>	Electricity Supply Board, the electricity supply authority in the Republic of Ireland.
<b>Fossil fuel</b>	Coal, coal products, lignite, natural gases, crude liquid petroleum or petroleum products.
<b>Fossil fuel levy</b>	A levy imposed on <b>licensed suppliers</b> in Great Britain under regulations made pursuant to section 33 of the Electricity Act 1989 to compensate <b>PESs</b> in Great Britain for the additional costs incurred as a result of satisfying any <b>NFFO</b> .
<b>Franchise/franchise market</b>	Any market within a <b>PES's authorized supply area</b> which is not open to competition from any <b>second-tier supplier</b> .
<b>GCC</b>	General Consumer Council for Northern Ireland.
<b>Generating security standards</b>	The generation security planning standard and the operating security standard which govern the need for the <b>PPB</b> to contract for new generating capacity and give rules for the <b>despatch</b> of <b>generators</b> .
<b>Generating set/generating unit</b>	Any plant or apparatus for the production of electricity.
<b>Generating unit agreement</b>	A <b>PPA</b> between a <b>generator</b> and <b>NIE</b> in respect of a single <b>generating unit</b> at a power station.
<b>Generation licence</b>	A licence granted under the Electricity Act 1989 (in Great Britain) or the <b>Electricity Order</b> authorizing the holder to generate electricity for the purpose of giving a supply or enabling a supply to be given to any premises.

<b>Generator</b>	A person authorized by licence or exemptions under the <b>Electricity Order</b> to generate electricity.
<b>Grid code</b>	The code prepared by <b>NIE</b> and approved by the <b>DG</b> relating, among other things, to operational standards in respect of the <b>transmission and distribution system</b> and the scheduling and <b>despatch</b> of <b>generating units</b> .
<b>HCA</b>	Historical cost accounting.
<b>HFO</b>	Heavy fuel oil.
<b>IIP</b>	Investors In People.
<b>IMV</b>	Initial market value.
<b>Interconnector</b>	A connecting link between two transmission systems.
<b>IPC</b>	Interruptions per customer.
<b>IPCV</b>	Initial price control value.
<b>JE</b>	Job evaluation.
<b>Kilroot</b>	Kilroot power station, owned by <b>Nigen Limited</b> whose parent companies are AES Corporation of the USA and Tractebel of Belgium.
<b>Landbank</b>	One of the separate businesses of <b>NIE</b> that is not subject to price control regulation (see Chapter 5).
<b>LE</b>	London Economics Limited ( <b>OFREG</b> 's consultant in respect of valuing the <b>RAB</b> of <b>NIE</b> 's <b>T&amp;D Business</b> and assessing <b>NIE</b> 's operating efficiency).
<b>Licence document</b>	<b>NIE</b> 's composite licence document, incorporating its <b>transmission licence</b> and its <b>PES licence</b> .
<b>Licensed supplier</b>	A <b>PES</b> or a <b>second-tier supplier</b> .
<b>LRMC</b>	Long-run marginal costs.
<b>M&amp;M</b>	Merz and McLellan, engineering consultants to <b>NIE</b> .
<b>Manweb</b>	Manweb plc, a <b>REC</b> , owned by <b>ScottishPower</b> .
<b>MAR</b>	Market-to-asset ratio.
<b>MEAV</b>	Modern equivalent asset value.
<b>MWCA</b>	Monetary working capital adjustment.
<b>NERA</b>	National Economic Research Associates, consultants to <b>NIE</b> for purposes of the price control review.
<b>NFFO</b>	Non-fossil fuel obligation. Any requirement pursuant to a <b>non-fossil fuel obligation order</b> for <b>PESs</b> to make arrangements to have available during specified periods specified amounts of generating capacity from non-fossil fuelled generating stations.

<b>NGG</b>	National Grid Group plc.
<b>NIAO</b>	Northern Ireland Audit Office.
<b>NICCE</b>	Northern Ireland Consumer Committee for Electricity.
<b>NIE</b>	Northern Ireland Electricity plc and its subsidiaries (as the context requires).
<b>Nigen Limited</b>	Owner of <b>Belfast West</b> and <b>Kilroot</b> power stations. Nigen Limited is itself jointly owned by AES Corporation of the USA and Tractebel of Belgium.
<b>Non-fossil fuel obligation order</b>	In Northern Ireland, an order under Article 35 of the <b>Electricity Order</b> for <b>NIE</b> to make arrangements to have available during specified periods specified amounts of generation capacity from non-fossil fuelled generating stations.
<b>NPV</b>	Net present value.
<b>OFFER</b>	The Office of Electricity Regulation (in Great Britain).
<b>OFREG</b>	Office for the Regulation of Electricity and Gas (in Northern Ireland).
<b>ONS</b>	Office of National Statistics.
<b>Over 1 MW customer</b>	A non-domestic customer having a maximum demand of over 1 MW as defined in the <b>licence document</b> .
<b>P<sub>0</sub></b>	The extent of the change in permitted revenues in the first year of a new price control period, expressed as a percentage change compared with the last year of the previous period.
<b>Pass-through</b>	Resale at the price bought.
<b>PE</b>	Price to earnings.
<b>PES</b>	Public electricity supplier. A holder of a <b>PES licence</b> .
<b>PES licence</b>	A licence granted under the Electricity Act 1989 (in Great Britain) or the <b>Electricity Order</b> (in Northern Ireland) to supply electricity as a <b>PES</b> to any premises within the <b>authorized supply area</b> specified in that licence.
<b>PKF</b>	Pannell Kerr Forster ( <b>OFREG</b> 's consultant in respect of <b>NIE</b> 's efficient operating expenditure).
<b>Pool</b>	The wholesale electricity trading market in England and Wales.
<b>PPA</b>	Power purchase agreement. Long-term contracts, put in place by the Government at privatization, securing to <b>NIE</b> the capacity and output of the four power stations formerly part of <b>the Service</b> (see Chapter 3).
<b>PPB</b>	The Power Procurement Business of <b>NIE</b> .
<b>RAB</b>	Regulatory asset base.

<b>R&amp;M</b>	Repairs and maintenance.
<b>RECs</b>	The 12 regional electricity companies which are the <b>PESs</b> for England and Wales.
<b>Relevant suppliers</b>	<b>Public electricity suppliers, second-tier suppliers</b> and certain large users of electricity who are entitled to buy electricity direct from the <b>PPB</b> at the <b>Bulk Supply Tariff</b> .
<b>Renewable energy</b>	Energy which is produced otherwise than from a <b>fossil fuel</b> or nuclear source.
<b>RKD</b>	Rust Kennedy & Donkin Limited, engineering consultant to <b>OFREG</b> .
<b>RPI</b>	Retail price index. The general index of retail prices published by the Office of National Statistics each month.
<b>SCADA</b>	Supervisory Control and Data Acquisition.
<b>Scottish interconnector</b>	The proposed 250 MW interconnector between Northern Ireland and Scotland.
<b>ScottishPower</b>	Scottish Power plc.
<b>Second-tier customer</b>	A person who purchases electricity from a <b>second-tier supplier</b> .
<b>Second-tier licence</b>	In Northern Ireland a licence granted under the <b>Electricity Order</b> to supply electricity to specified premises or premises of a specified description.
<b>Second-tier supplier</b>	A holder of a <b>second-tier licence</b> .
<b>The Service</b>	The statutory corporation existing until April 1992 and known as Northern Ireland Electricity (formerly the Northern Ireland Electricity Service).
<b>SHE</b>	Scottish Hydro-Electric plc.
<b>Supply Business</b>	The Supply Business of <b>NIE</b> .
<b>Supply Competition Code</b>	The code of that description designated by the <b>DED</b> and applying to the sale and purchase by the <b>PPB</b> of all bulk supplies of electricity in Northern Ireland.
<b>SWALEC</b>	South Wales Electricity plc, a <b>REC</b> , owned by Hyder plc.
<b>SWEB</b>	South West Electricity plc, a <b>REC</b> , owned by Southern Corporation (of the USA).
<b>T&amp;D Business</b>	The Transmission and Distribution Business of <b>NIE</b> .
<b>Tariff customer</b>	A customer of <b>NIE</b> who is not a contract customer.
<b>Transmission licence</b>	A licence granted under the Electricity Act 1989 (in Great Britain) or the <b>Electricity Order</b> (in Northern Ireland) authorizing the holder to transmit electricity for the purpose of giving a supply or enabling a supply to be

given to any premises.

**Vesting** The transfer, on 31 March 1992, of the property, rights and liabilities of **the Service** to **NIE**.

**VSS** Voluntary severance scheme.

**WACC** Weighted average cost of capital.

**WETS** Wholesale electricity trading system.

### ***Technical terms***

**ABC** Aerial bundled conductors, insulated **LV** conductors bundled together and normally supported by poles or for spanning between buildings.

**Availability** In respect of a generating station, the ratio (usually expressed as a percentage) of the net amount of electricity which a generating station is capable of producing in any given period (usually one year) to the net amount of electricity it could produce in that period if it were operating at its net output capacity. The availability of generating stations is affected by a number of factors including the incidence and duration of breakdowns and the need for overhaul and maintenance. In respect of a transmission system, availability is the ratio (also usually expressed as a percentage) of the time, in hours, for which the relevant equipment was available to perform its normal function in a given year to the total number of hours in that year.

**Base load** The lowest load continuously supplied by an electrical power system over a period of time. A base load **generating set** is one which under normal operating conditions would run continuously.

**Circuit** Part of an electrical transmission or distribution system connecting two or more points on that system.

**Current** The rate of flow of electricity in an electrical circuit is described as electrical current. Current is expressed and measured in terms of amperes.

**Despatch** The process by which **NIE** instructs **generators** to operate their generating plant.

**Distribution system** In the case of **NIE**, a system of electrical circuits operating at voltages of 33 kV or less and associated electrical plant and meters.

**Energy** The total amount of energy consumed or generated within a given period is the simple product of power and the time over which that power is used or produced. Electrical energy is normally expressed in terms of **kWh** or units, where 1 kWh or unit represents one hour's consumption at a constant rate of 1 kW. An **MWh** is 1,000 **kWh**; a **GWh** is 1,000 **MWh**; and a **TWh** is 1,000 **GWh**.

**GWh** Gigawatt hour, being 1 million **kWh**.

**HV** High voltage.

**Installed capacity** The highest level of output, measured at the main alternator terminals,

which a generating station or **generating set** is designed to be able to maintain indefinitely without causing damage to the plant.

<b>kV</b>	Kilovolt (1,000 volts.)
<b>kWh</b>	Kilowatt hour. A rate of consumption of energy, 1 kWh being one hour's consumption at a constant rate of 1 kW (1,000 <b>watts</b> ).
<b>Load factor</b>	The ratio (expressed as a percentage) of the average demand (eg in MW) to the peak demand.
<b>LV</b>	Low voltage.
<b>LV/MV</b>	Low voltage/medium voltage, describing standard three-phase and neutral consumer supply (eg 415V/240V).
<b>MVa</b>	Megavolt ampere, the product of <b>voltage</b> and <b>current</b> divided by 10 per cent. Often used for rating plant such as <b>transformers</b> and also for indicating short circuit ratings.
<b>MWh</b>	A megawatt hour, being 1,000 <b>kWh</b> .
<b>Net output capacity</b>	In relation to a generating station or <b>generating set</b> , the <b>installed capacity</b> of the generating station or <b>generating set</b> less the power which is consumed by the plant associated with the generating station or <b>generating set</b> .
<b>OH line</b>	Overhead electricity line with conductors and support structures, eg poles or steel towers.
<b>Outage</b>	The withdrawal from service or non-availability of a <b>generating set</b> , or any part of a transmission or distribution system, for a period of time.
<b>Power</b>	A measure of the rate at which energy is either used or produced. Electrical power is expressed in terms of <b>watts</b> and is the product of <b>voltage</b> , <b>current</b> and power factor. A kilowatt (kW) is 1,000 watts; a megawatt (MW) is 1,000 kW; a gigawatt (GW) is 1,000 MW; and a terawatt is 1,000 GW.
<b>Spinning reserve</b>	The generation capacity which has the status of <b>generating sets</b> in which the turbines are spinning and able to generate more electricity in response to system needs.
<b>Substation</b>	A site or structure containing or comprising one or more <b>transformers</b> and/or <b>switchgear</b> .
<b>Switchgear</b>	Equipment installed on a <b>transmission system</b> or <b>distribution system</b> to connect components of that system and which can be arranged to disconnect parts of the system automatically if overload or a fault occurs.
<b>System security</b>	The ability of a system to continue to meet demand, following an abnormal occurrence, without overloading any component part of that system.
<b>System stability</b>	The stability of a power system is characterized principally by the maintenance of frequency, <b>voltage</b> and power transfer within limits. It is also dependent on the design and operation of the <b>transmission system</b> , the response of <b>generating sets</b> to disturbances and the availability of reactive power.

<b>Thermal efficiency</b>	The efficiency with which heat energy contained in a primary fuel is converted into electrical energy. The thermal efficiency of a generating station is the ratio (usually expressed as a percentage) of the electrical energy supplied by the generating station (net of electricity consumed by the generating station) to the total heat energy contained in the primary fuel consumed.
<b>Transformer</b>	Plant used to alter the level of voltage.
<b>Transmission constraints</b>	The physical limitations of a transmission system to carry electricity.
<b>Transmission and distribution system</b>	The <b>transmission system</b> and <b>distribution system</b> taken together.
<b>Transmission system</b>	<b>NIE's</b> transmission system of electrical circuits operating primarily at voltages of 275 kV and 110 kV and associated electrical plant and meters.
<b>TWh</b>	A terawatt hour, being 1,000 <b>GWh</b> .
<b>Voltage</b>	The potential difference or 'electrical pressure' which forces an electrical <b>current</b> to flow within a <b>circuit</b> is measured and expressed in volts (V). A kilovolt (kV) is 1,000 volts. As the load on an electrical <b>circuit</b> fluctuates so the <b>voltage</b> can fluctuate.
<b>Watt</b>	A unit of electrical <b>power</b> .