

DEFINITIONS

Act	The Electricity Regulation Act 1999.
Active Energy	<p>The electrical energy produced, flowing or supplied by an electric circuit during a time interval, being the integral with respect to time of the instantaneous Active Power, measured in units of Watt-hours or standard multiples thereof, i.e.:</p> <p>1000 Watt-hours = 1 Kilo Watt-hour (kWh)</p> <p>1000 Kilo Watt-hour = 1 Mega Watt-hour (MWh)</p> <p>1000 Mega Watt-hour = 1 Giga Watt-hour (GWh)</p> <p>1000 Giga Watt-hour = 1 Tera Watt-hour (TWh)</p>
Active Power	<p>The product of the components of alternating current and voltage that equate to true power which is measured in units of watts and standard multiples thereof, for example:</p> <p>1000 Watts = 1 kW;</p> <p>1000 kW = 1 MW;</p> <p>1000 MW = 1 GW.</p>
Active Power Control	The automatic change in Active Power output from a Controllable WFPS in a response to an Active Power Control Set-point received from the TSO .
Active Power Control Set-point	The maximum amount of Active Power in MW, set by the TSO , that the Controllable WFPS is permitted to export.
Additional Grid Code Availability Notice	A notice submitted by a User to the TSO pursuant to SDC1.4.2 relating to additional data on Availability .
Additional Grid Code Characteristics Notice	A notice to be submitted to the TSO pursuant to SDC1.4.4.2 relating to additional technical data.
AGC Control Range	The range of loads over which AGC may be applied.
AGC Maximum Load	The upper limit of the AGC Control Range .
AGC Minimum Load	The lower limit of the AGC Control Range .
Aggregate Interconnector Ramp Rate	The maximum Ramp Up Rate for an Interconnector or maximum Ramp Down Rate as determined by the TSO .
Aggregated Demand Site	A group of Individual Demand Sites represented by a Dispatchable Demand Customer , which together are capable of a Demand Reduction Capability equal to or above 4 MW (and

	<p>which is therefore subject to Central Dispatch from the TSO). Each Individual Demand Site comprising an Aggregated Demand Site shall be in one currency zone. Unless otherwise specified, information submitted in respect of an Aggregated Demand Site shall always be at an aggregated level.</p>
Aggregated Generating Unit	<p>A group of Generating Units represented by a Generator Aggregator, each of which must not have a Registered Capacity greater than 10 MW. An Aggregated Generating Unit with a total Registered Capacity of 4 MW or more shall be subject to Central Dispatch, but one with a total Registered Capacity of less than 4 MW may be subject to Central Dispatch subject to agreement with the TSO. Unless otherwise specified by the TSO or otherwise in the Grid Code, information submitted in respect of an Aggregated Generating Unit shall always be at an aggregated level.</p>
Aggregated Maximum Export Capacity	<p>In the case of a Generator Aggregator, the aggregated value (in MW, MVA, kW and/or kVA) provided in each Connection Agreement (or connection agreement to the Distribution System, as the case may be) for the Generating Units for which the Generator Aggregator is responsible.</p>
Aggregated Maximum Import Capacity	<p>In the case of a Dispatchable Demand Customer in respect of its Aggregated Demand Site or a Generator Aggregator in respect of its Aggregated Generating Unit, the aggregated values (kW and/ or kVA) provided in each Connection Agreement (or connection agreement to the Distribution System, as the case may be) for the Individual Demand Sites or Generating Units for which the Dispatchable Demand Customer or Generator Aggregator is responsible.</p>
Aggregator	<p>Either a Generator Aggregator or a Dispatchable Demand Customer in respect of an Aggregated Demand Site.</p>
Alert	<p>A Red Alert, an Amber Alert or a Blue Alert or other Alert warning as agreed pursuant to OC9 (Emergency Control and Power System Restoration)</p>
Amber Alert	<p>An alert issued by the TSO to the Users when a single Event would give rise to a reasonable possibility of failure to meet the Power System Demand, or of Frequency or Voltage departing</p>

	significantly from normal or if multiple Events are probable due to prevailing weather conditions.
Ancillary Service	A service, other than the production of electricity, which is used to operate a stable and secure Power System including. Reactive Power, Operating Reserve, Frequency Control and Blackstart Capability .
Ancillary Service Agreement	The bilateral agreement between the TSO and the User , which contains the detail specific to the User's provision of Ancillary Services .
Annual SLR Conditions	12.30 and 18.00 on the second Tuesday of January or any other day nominated by DSO .
Apparatus	An item of equipment in which electrical conductors are used, supported or of which they may form part and includes meters, lines, cables and appliances used or intended to be used for carrying electricity for the purpose of supplying or using electricity.
Apparent Power	The product of voltage and of alternating current measured in units of volt-amperes and standard multiples thereof.
Automatic Frequency Restoration	A system for reconnecting Demand Customers automatically following a low frequency Event on the Transmission System , once the frequency has recovered.
Automatic Generator Control (AGC)	A control system installed between the NCC and a Power Station whereby MW set points can be adjusted remotely by the TSO to reflect the Dispatch Instruction
Automatic Low Voltage Demand Disconnection (ALVDD)	The automatic disconnection of Demand Customers when the Voltage or the rate of change of voltage has violated acceptable limits as determined by the TSO .
Automatic Voltage Regulation	Automatic maintenance of a Generation Unit's terminal voltage at a desired setpoint
Automatic Voltage Regulator	A continuously acting automatic closed loop control system acting on the excitation system so as to maintain a Generation Unit's terminal voltage at a desired setpoint.
Autonomous Generating Units	A Generating Unit that is not subject to Central Dispatch or subject to Active Power control by the relevant TSO .
Autoproducer	Persons to whom electrical Energy is provided and by whom the electrical Energy is generated essentially for their own use, by

	means of a direct connection to the Transmission System .
Auxiliaries	Any item of Plant and/or Apparatus not directly a part of the boiler plant or Generating Unit , but required for the boiler plant's or Generating Unit's functional operation. 'Auxiliary' shall be defined accordingly.
Auxiliary Diesel Engine	A diesel engine driving a Generating Unit which can supply a Unit Board or Station Board , which can start without an electrical power supply from outside the Power Station within which it is situated.
Auxiliary Fuel	A fuel other than a Primary Fuel which may be used for start up purposes or for support of combustion or Maximisation when the Generation Unit is producing Energy
Auxiliary Load	The electrical Demand of the Generation Unit's Auxiliary Plant required for the operation of the Generation Unit .
Auxiliary Plant	Any item of Plant and/or Apparatus not directly a part of the boiler plant or Generation Unit , but required for the boiler plant's or Generation Unit's functional operation.

Availability	<p>At any given time the measure of Active Power a Generation Unit(s) is capable of delivering to the Connection Point and the term “Availabilities” shall be construed accordingly. This can be calculated as a gross figure.</p> <p>In terms of a Demand Side Unit the measure at any given time of the Demand Reduction the Demand Side Unit is capable of delivering to the Connection Point.</p>
Availability Notice	A notice to be submitted to the TSO pursuant to SDC1.4.1.1.
Availability Factor	<p>The ratio of the Energy that could have been produced during a specified period of time by a Generation Unit operating in accordance with its Availability, and the Energy that could have been produced during the same period by that Generation Unit operating at its Registered Capacity. Availability Factor can alternatively be reported in gross terms.</p>
Available Active Power	<p>The amount of Active Power that the Controllable WFPS could produce based on current wind conditions. The Available Active Power shall only differ from the actual Active Power if the Controllable WFPS has been curtailed, constrained or is operating in a restrictive Frequency Response mode.</p>
Black Start	The procedure necessary for a recovery from a Total Shutdown or Partial Shutdown .
Black Start Capability	<p>Ability in respect of a Black Start Station, for at least one of its Centrally Dispatched Generation Units to start-up from Shutdown, without importing energy from the Transmission System, and to energise a part of the Transmission System and be Synchronised to the Transmission System upon instruction from the TSO.</p>
Black Start Shutdown	<p>In the event of a Partial or Total Shutdown of the Transmission System, the Controllable WFPS shall be sent a Black Start Shutdown signal by the TSO and upon receipt of the signal, the Controllable WFPS shall trip the circuit breaker(s) at the Connection Point and shutdown the Controllable WFPS in a controlled manner.</p>
Black Start Station	A Power Station which is registered pursuant to Grid Code as having a Black Start Capability

Block Load	The level of output that a Generating Unit immediately produces following Synchronisation . For avoidance of doubt, Block Load can equal 0 MW.
Block Load Cold	Block Load during a Cold Start .
Block Load Hot	Block Load during a Hot Start .
Block Load Warm	Block Load during a Warm Start .
Blue Alert	An alert issued by the TSO signifying that either a Partial or a Total Shutdown of the Power System has taken place.
Business Day	Monday through Friday excluding public holidays and holidays observed by ESB .
Cancelled Start	A response by a Generator to an instruction from the TSO cancelling a previous instruction to Synchronise to the Transmission System .
Capacity	The rated continuous load-carrying ability, expressed in megawatts (MW) or megavolt-amperes (MVA) of generation, transmission, or other electrical equipment.
Capacity Adequacy	When there is sufficient Generation Capacity to meet the Demand and Reserve requirements.
Capacity Adequacy Indicator	An indication issued by the TSO for each weekly peak of the year based on Availability and Demand forecasts whether or not there is sufficient Generation Capacity to meet Demand .
Capacity Shortfall Warning	A warning issued by the TSO that based on Availability and Demand forecasts there is insufficient Generation Capacity to meet the peak Demand .
CCGT Installation Matrix	The matrix which must be submitted by a Generator under the Planning Code and which is used by the TSOs for Scheduling and Dispatch purposes under the SDCs as a “look up” table determining which CCGT Units will be operating at any given MW Dispatch level subject to any updated Availability information submitted by a Generator to a TSO under SDC1 .
CCGT Installation	A collection of Generation Units comprising one or more Combustion Turbine Units and one or more Steam Units where, in normal operation, the waste heat from the Combustion Turbine Units is passed to the water/steam system of the associated Steam Unit or Steam Units and where the component

	<p>Generation Units within the CCGT Installation are directly connected by steam or hot gas lines which enable those Units to contribute to the efficiency of the combined cycle operation of the CCGT Installation.</p>
CCGT Unit	A Generation Unit within a CCGT Installation
Central Dispatch	<p>The process of Scheduling and issuing Dispatch Instructions in relation to CDGUs, Dispatchable WFPS, Pumped Storage Plant Demand, Demand Side Units, Aggregated Generating Units and/or Interconnectors direct to a Control Facility by the TSO pursuant to the Grid Code. In particular:</p> <ul style="list-style-type: none"> ▪ All Dispatchable WFPSs shall be subject to Central Dispatch; ▪ All other Power Stations with a Registered Capacity of above 10 MW shall be subject to Central Dispatch ▪ All other Power Stations with a Registered Capacity of 10 MW or less shall be subject to Central Dispatch, however can elect whether to comply with SDC1.4.4.5 relating to the submission of Commercial Offer Data
Centrally Dispatched Generating Unit	A Generating Unit within a Power Station subject to Central Dispatch , which comprises, unless specified otherwise in relation to a particular use of the term, a Thermal Plant including a CCGT Installation, a Dispatchable WFPS, Hydro Unit and Pumped Storage Plant in respect of its Pumped Storage Generation .
Cold Start	Any Synchronisation of a Generating Unit that has previously not been Synchronised for a period of time longer than its submitted Warm Cooling Boundary .
Combustion Turbine Unit	A Generation Unit which compresses the inlet air and feeds fuel to the combustion chamber. The fuel and air burn to form hot gases which in turn forces these hot gases into the turbine, causing it to spin. The turbine can be fuelled by natural gas, by distillate or by other such fuels as technology may allow.
Commercial Energy Metering	Metering which is utilised to measure Energy for Tariff charging purposes.
Commercial Offer Data	Data submitted by a User or an Intermediary to the MO pursuant

	to the TSC in relation to prices and, where applicable, Nominated Profile for certain Users .
Commission	The Commission for Energy Regulation (CER)
Commissioning	Activities involved in undertaking the Commissioning Test or implementing the Commissioning Instructions pursuant to the terms of the Connection Agreement or as the context requires the testing of any item of users equipment required pursuant to this Grid Code prior to connection or re-connection in order to determine that it meets all requirements and standards for connection to the Transmission System . It also includes activities that determine the new values of parameters that apply to it following a material alteration or modification and in addition those activities involved in undertaking the Commissioning Tests or implementing the Commissioning Instructions as the context requires.
Commissioning Instructions	A step-by-step test procedure for a Commissioning Test .
Commissioning Test	Testing of a CDGU, Controllable WFPS, Pumped Storage Plant Demand, Demand Side Units, Aggregated Generating Units, Interconnector or an item of User's Equipment required pursuant to the Connection Conditions prior to connection or re-connection in order to determine whether or not it is suitable for connection to the System and also to determine the new values of parameters to apply to it following a material alteration or modification of a CDGU, Controllable WFPS, Pumped Storage Plant Demand, Demand Side Units, Aggregated Generating Units, Interconnector or of an item of User's Equipment and the term "Commissioning Testing" shall be construed accordingly.
Committed Outage Programme	A programme of Outages of the Generator's Generation Units prepared by the TSO pursuant to Section OC2 and covering year 1.
Committed Project Planning Data	Data relating to a User Development once the offer for a Connection, Use of System Agreement and/or supplemental agreements are accepted.
Common Section	Those parts of the Grid Code which are under common governance in both the Grid Code and the Other Grid Code , as further provided in the Grid Code .
Communications and Control Room	The communications and control room to be provided by the User in accordance with the Connection Agreement

Connection Agreement	The bilateral agreement between the TSO and the User , which contains the detail specific to the User's connection to the Transmission System .
Connection Conditions	The section of this Grid Code which is identified as the Connection Conditions .
Connection Date	The date on which the Commissioning Instructions have to the TSO's satisfaction been properly implemented in respect of every part of the User's Equipment , following which the TSO shall, as soon as reasonably practicable notify the User to that effect, specifying the date of completion of such implementation
Connection Offer	A quotation letter together with the unsigned Connection Agreement which forms the TSO's offer for connection of the Facility to the Transmission System as the result of an application for connection of the Facility .
Connection Point	The physical point where the User's Plant Apparatus or System is joined to the Transmission System or the Distribution System .
Connection Site	The site at which the Plant and Apparatus of the User at the User's side of the Connection Point is to be installed including the land, spaces, roads and any surfaces.
Constrained Group	A group of Generating Units located within a constrained part of the System as determined by the TSO .
Contingency	The unexpected failure or Outage of a system component, such as a Generation Unit , transmission line, circuit breaker, switch, or other electrical element. A Contingency also may include multiple components, which are related by situations leading to simultaneous component outages.
Contingency Reserve	The margin of available Generation Capacity over forecast System Demand which is required in the period of 24 hours ahead down to real time, to cover against uncertainties in availability of Generation Capacity and against Demand forecast errors or variations
Control Action	An action, such as switching, whereby the Transmission System is operated.
Control Centre	A location used for the purpose of monitoring, control and operation of the Transmission System or a User System other

	than a Generator 's System.
Control Facility	A location used for the purpose of Monitoring , control and operation of the User 's Plant and Apparatus and for accepting Dispatch Instructions via Electronic Interface .
Control Phase	The Control Phase follows on from the Programming Phase and starts with the issue of the Generation Schedule for the next day and covers the period down to the real time
Control Synchronising	The coupling (by manual or automatic closing of the circuit breaker) of two asynchronous Systems by means of synchroscope.
Controllable WFPS	A site containing at least one WTG can automatically act upon a remote signal from the TSO to change its Active Power output.
Controllable WFPS Availability	The amount of MW the Controllable WFPS can produce given favourable wind conditions.
Controllable WFPS MW Availability Declaration	A measure of the maximum Active Power output which can be produced by a Controllable WFPS given favourable wind conditions. Account shall be taken of partial and/or full outages of individual WTG within the Controllable WFPS .
Controllable WFPS Operator	The operator of the Controllable WFPS .
Controlled Active Power	The amount of Active Power that a Controllable WFPS is permitted to export based on the Active Power Control Set-point signal sent by the TSO .
Customer	A person to whom electrical power is provided (whether or not this is the same person who provides the electrical power).
Customer Demand Management	Reducing the supply of electricity to a Customer or disconnecting a Customer in a manner agreed for commercial purposes between a Supplier and its Customers
Cycle Operating Mode	The Open Cycle Mode or combine cycle Operating Mode of a CCGT Installation which may need to be specified pursuant to a Dispatch Instruction under SDC2.4.2.4(j).
Declaration	A notice prepared by the User in respect of a User's Plant submitted to the TSO in accordance with the requirements of SDC1 and setting out the values (and times applicable to those values) of Availability , Ancillary Services capabilities, Operating Characteristics , and " Declared " shall be construed accordingly.
Declared Operating	The Operating Characteristics which the Generator shall have

Characteristics	informed the TSO under the provisions of SDC1 and which shall reasonably reflect the true Operating Characteristics of the Generation Unit
De-energise	Disconnect from the Transmission System utilising circuit switches etc to isolate the Plant and/or Apparatus , and “ De-energised ” and “ De-energising ” shall be construed accordingly.
Deload Break Point	The point at which due to technical reason a Generating Unit may need to pause during its MW Output reduction process.
De-Loading Rate	The rate at which a Generation Unit reduces MW Output from Minimum Generation to zero when it is instructed to cease output. There are up to two possible deloading rates, which shall be named accordingly: De-Loading Rate 1 and De-Loading Rate 2 .
Demand	The amount of electrical power consumed by the Power System comprising of both Active and Reactive Power , unless otherwise stated.
Demand Control	All or any of the methods of achieving a Demand reduction or an increase in Demand as set out in OC5.
Demand Control Alert	A warning issued by the TSO when the TSO anticipates that it will or may instruct the DSO to implement Demand reduction.
Demand Customer	A person to whom electrical Energy is provided by means of a direct connection to the Transmission System . Autoproducers are to be considered both Generators and Demand Customers .
Demand Disconnection	Disconnection of Demand Customers
Demand Profile	The estimated consumption in MW Demand for an Individual Demand Site or aggregated consumption for each Individual Demand Site which form part of an Aggregated Demand Site for each Trading Period in the following Optimisation Time Horizon period and which must be submitted to the TSO in the Availability Notice under SDC1.4.1.2.
Demand Reduction	The reduction in MW Demand which can be achieved in one currency zone by a Demand Side Unit for each Trading Period in the following Optimisation Time Horizon period and which must be submitted by the User to the TSO in an Availability Notice under SDC1.4.1.2.

Demand Reduction Capability	The reduction capability in MW Demand that can be achieved by the Demand Side Unit .
Demand Side Unit	An Individual Demand Site or Aggregated Demand Site with a Demand Reduction Capability of at least 4 MW. The Demand Side Unit shall be subject to Central Dispatch .
De-maximisation Instruction	An instruction issued by the TSO to Generators to cease Maximisation .
Designated Operator	The operators approved in writing by the relevant User as competent to carry out the procedures in the agreed Operation Instructions for parties connecting to the Transmission System
De-Synchronise	The act of taking a Generation Unit which is Synchronised to the Transmission System off the Transmission System to which it has been Synchronised and the term " De-Synchronised ", and other like terms, shall be construed accordingly.
De-Synchronising	The act of taking a Generating Unit off the Network , to which it has been Synchronised , and like terms shall be construed accordingly.
Disconnection	The physical separation of Users (or Customers) from the Transmission System or a User System as the case may be.
Dispatch	The issue by the TSO of instructions to a Generator, Pumped Storage Generator, Interconnector Owner, Dispatchable Demand Customer or Generator Aggregator in respect of its CDGU, Pumped Storage Plant Demand, Demand Side Unit, Aggregated Generating Units, or Interconnector tranche pursuant to SDC2 and the term " Dispatched " shall be construed accordingly.
Dispatch Instruction	An instruction given by the TSO to a CDGU, Demand Side Unit, Interconnector tranche and/or Pumped Storage Plant Demand to that User's approved Control Facility to change the output, fuel or manner of operation of the CDGU, Demand Side Unit, Interconnector tranche and/or Pumped Storage Plant Demand . " Instruct " and " Instructed " shall be construed accordingly.
Dispatchable Demand Customer	A person who operates a Demand Side Unit , with an aggregated Demand Reduction Capability not less than 4 MW.
Dispatchable WFPS	A Controllable WFPS which must have a Control Facility in

	order to be dispatched via an Electronic Interface by the TSO .
Disputes Resolution Procedure	The procedures described in the Connection Agreement , Use of System Agreement and Ancillary Services Agreement relating to disputes resolution.
Distribution Control Centre	Control Centre of the Distribution System Operator
Distribution System	The system consisting (wholly or mainly) of electric circuits, transformers and switchgear which are operated by and used for the distribution of electricity from Grid Supply Points or Generating Units or other entry points to the point of delivery to Customers or other Users and any Plant and Apparatus and meters used in connection with the distribution of electricity, but not including any part of the Transmission System .
Distribution System Operator (DSO)	An entity unit within ESB which is responsible for, amongst other things, the planning, development, operation and maintenance of the Distribution System .
Disturbance	An unplanned event that produces an abnormal System condition.
Disturbing Loads	A load on the System that adversely affects Power Quality .
Dwell Time	The duration for which the Generating Unit must remain at the Dwell Time Trigger Point during a change in its MW Output while ramping up or down between Minimum Generation and instructed MW Output .
Dwell Time Trigger Point	A constant MW level at which a Generating Unit must remain while ramping up or down between Minimum Generation and instructed MW Output . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Earthing	A way of providing a connection between conductors and earth by an Earthing Device .
Earthing Device	A means of providing a connection between a conductor and earth being of adequate strength and capability for the intended purpose.
Effect of Parallel Flows	The effect of the flow of electricity on an electric system's transmission facilities resulting from scheduled electric power transfers between two electric systems. Electric power flows on all

	interconnected parallel paths in amounts inversely proportional to each paths resistance.
Electronic Alert System	The primary means by which an Alert is transmitted by the TSO to Users (or to certain Users only) in accordance with OC9 .
Electronic Interface	A system, in accordance with the requirements of the TSO's data system, at the Control Facility , providing an electronic interface between the TSO and a User , for issuing and receiving instructions, including Dispatch Instructions as provided for in the Grid Code and established pursuant to an agreement between the TSO and the User .
Embedded Generation	Generation Units within a Power Station which are directly connected to a Distribution System or the system of any other User , such connection being either a direct connection or a connection via a busbar of another User but with no other Connection to the Transmission System
Emergency	Any abnormal system condition that requires automatic or immediate manual action to prevent or limit loss of transmission facilities or generation supply that could adversely affect the reliability of the Transmission System
Emergency Control Centre (ECC)	A site, remote from the National Control Centre , providing at least the minimum level of control capabilities necessary for secure operation of the Power System , to be utilised in the event that an emergency situation or major failure of facilities at the National Control Centre prevents operation from the National Control Centre , or otherwise as determined by the TSO (e.g. for NCC maintenance, testing or training).
Emergency Instruction	A Dispatch instruction issued by the TSO , pursuant to SDC2.11 to a CDGU which may require an action or response which is outside the limits implied by the then current Declarations .
End of Restricted Range	The end point in MW of a Forbidden Zone . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
End Point of Start-up Period	The time after which the rate of change of the Generating Unit Output is not dependent upon the initial Warmth of the Generating Unit .
Energise	The movement of any isolator, breaker or switch so as to enable

	active power and reactive power to be transferred to and from the Facility through the Generator’s Plant and Apparatus and “ Energised ” and “ Energising ” shall be construed accordingly.
Energy	The electrical energy produced, flowing or supplied by an electrical circuit during a time interval and being the integral with respect to time of the instantaneous Active Power , measured in units of Watt-hours or standard multiples thereof.
Energy Limit	The target amount of Energy to be generated by an Energy Limited Generating Unit within the Trading Day .
Energy Limit Factor	A factor between zero and one, which is applied to the Energy Limit for use in calculating the scheduled Energy of Energy Limited Generating Units in the period between the end of the Trading Day and the end of the Optimisation Time Horizon period.
Energy Limit Start	06:00 hours on the Trading Day .
Energy Limit Stop	06.00 hours on the day following the Trading Day .
Energy Limited Generating Unit	A Hydro Unit with a limit on the Energy it can deliver in a specified time period.
ESB Networks Electrical Safety Rules	The current version of the document prepared by ESB and entitled “ESB Networks Electrical Safety Rules”
ESB Power Generation Electrical Safety Rules	The current version of the document prepared by ESB and entitled “ESB Power Generation Electrical Safety Rules”.
Estimated Registered Data	Those items of Planning Data which either upon connection will become Registered Data , or which for the purposes of the Plant and/or Apparatus concerned as at the date of submission are Registered Data , but in each case which for the seven succeeding the TSO financial years will be an estimate of what is expected.
Event	An unscheduled or unplanned occurrence on, or relating to either the Transmission System or a User’s System , including faults, incidents and breakdowns.
External Interconnection	Apparatus for the transmission of electricity to (from) the Transmission System or the Other Transmission System from (to) a transmission or distribution system located outside the island of Ireland.

External System	In relation to an External System Operator means the transmission or distribution system which it operates which is located outside the island of Ireland and any Apparatus or Plant which connects that system to the External Interconnection and which is owned or operated by such External System Operator .
External System Operator	A person who operates an External System which is connected to the Transmission System or the Other Transmission System by an External Interconnection .
Externally Interconnected Party	The operator of an electrical transmission or distribution system outside the island of Ireland which is connected to the Transmission System by an External Interconnection .
Facility	The User's facility located at the Connection Site including the User's Plant and Apparatus plus the Plant and Apparatus to be installed at the User's side of the Connection Point necessary to effect the connection
<u>Failure to Follow Notice to Synchronise Instruction</u>	<u>An instruction given by the TSO to a Generator in respect of its CDGU confirming that it has failed to Synchronise more than 5 minutes after the time specified in the Notice to Synchronise.</u>
<u>Failure to Reach Minimum Generation Instruction</u>	<u>An instruction given by the TSO to a Generator in respect of its CDGU confirming that it has De-Synchronised where it has tripped before reaching Minimum Generation.</u>
Flexible Outage	An Outage scheduled in the Committed Outage Programme as a Flexible Outage which is not within four Business Days of the scheduled start date and time
Forbidden Zone	A MW range within which a Generator cannot operate in a stable manner due to an inherent technical limitation of the machine.
Forced Outage Probability	The probability, in percentage terms, of a Generation Unit not being available to provide Energy or Ancillary Services .
Forecast Minimum Generation Profile	The User's forecast of the average level of Minimum Generation , in MW , for the User's Plant for each Trading Period in the Optimisation Time Horizon .
Forecast Minimum Output Profile	The User's forecast of the average level of minimum MW Output , in MW , for a Pumped Storage Plant for each Trading Period in the Optimisation Time Horizon .
Forecast Statement	A statement as defined in Section 38 of the Act

Frequency	The number of alternating current cycles per second (expressed in Hertz) at which a System is running.
Frequency Control	The control of the Frequency on the Power System .
Frequency Deadband	A Frequency range within which the Governor Control System is not expected to respond to changes in Transmission System Frequency . The purpose of the Frequency Deadband is to filter out noise and not to restrict the normal Frequency response of the Governor Control System .
Frequency Demand Disconnection	Disconnection of Demand Customers when Frequency falls to a particular threshold.
Frequency Event	An event where the Transmission System Frequency deviates to a value below 49.5Hz.
Frequency Regulation	The automatic adjustment of Active Power output by a Generation Unit , initiated by free governor action in response to continuous minor fluctuations of Frequency on the Power System .
Frequency Response	The automatic adjustment of Active Power output from a Generation Unit(s) in response to Frequency changes
Frequency Response System	A facility providing the means to automatically adjust the Active Power output from a Generation Unit(s) in response to changes in Frequency .
Frequency Sensitive Mode	The operation of a Generating Unit whereby its generation level is varied automatically to compensate for variations in the Frequency of the System .
Fuel Switch Over Output	The MW output, not lower than Minimum Load at which a Generation Unit can achieve a switch over from Primary Fuel to Secondary Fuel or from Secondary Fuel to Primary Fuel .
Full-Day Test	An Operational Test with a total duration of equal to or greater than 6 hours, or where the Active Energy produced during the total duration of the test is equal to or greater than: <ul style="list-style-type: none"> (i) 3 times the Active Energy which would be produced by the Test Proposer's Plant during 1 hour of operation at the Plant's Registered Capacity; or (ii) 500 MWh
Gas Turbine Unit	A Generation Unit driven by gas..
Gate Closure	10.00 hours on the day preceding the relevant Trading Day to

	which a notice relates.
General Conditions	The part of Grid Code which is defined as the General Conditions
Generating Plant	A Power Station subject to Central Dispatch .
Generating Unit	Has the same meaning as Generation Unit .
Generation	The process of producing electrical energy from other forms of energy; also, the amount of electric energy produced, usually expressed in megawatt-hours (MWh).
Generation Outage Programme	Any or all of the Indicative Outage Programme , the Provisional Outage Programme and the Committed Outage Programme .
Generation Unit	Any apparatus which produces electricity and, for the purpose of SDC1 and SDC2 , shall include a CCGT Installation or a CCGT Unit , where running arrangements and/or System conditions apply.
Generation Unit Output	The Active Power and Reactive Power produced by a Generation Unit net of Generation Unit Auxiliary Load
Generator	A person who generates electricity and is subject to the Grid Code pursuant to any agreement with the TSO or otherwise. Autoproducers are to be considered both Generators and Demand Customers .
Generator Aggregator	A person who represents several Generating Units , each of which does not have a Registered Capacity greater than 10 MW and the combined Registered Capacity of which is equal to or greater than 4 MW, by in particular preparing notices under SDC1, in relation to those Generating Units and receiving Dispatch Instructions in relation to those Generating Units under SDC2. For the avoidance of doubt, a Generator Aggregator cannot aggregate a Generating Unit with an output equal to or above 10 MW.
Generator Declared Inflexibilities	The inflexibilities declared by a Generator to the TSO under SDC1 and which the TSO must take into account under SDC1.4.5.3 when compiling the Indicative Operations Schedule .
Generator Site	The site owned (or occupied pursuant to a lease, licence or other agreement) by the Generator which contains the Connection Point .

Generator Transformer	A transformer whose principal function is to provide the interconnection between the Generation Unit and the Network and to transform the Generation Unit voltage to the Network voltage.
Generator Terminal	The stator terminals of a Generating Unit .
Good Industry Practice	Those standards, practices, methods and procedures conforming to safety and legal requirements which are attained by exercising that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced person engaged in the same type of undertaking under the same or similar circumstances.
Governor Control System	A system which will result in Active Power output of a Generation Unit changing, in response to a change in System Frequency , in a direction which assists in the recovery to Target Frequency
Governor Droop	The percentage drop in the Frequency that would cause the Generation Unit under free governor action to change its output from zero to its full Capacity .
Grid Code	This code prepared by the TSO pursuant to section 33 of the Act , and approved by the Commission , as from time to time revised, amended, supplemented or replaced with the approval of or at the instance of the Commission .
Grid Code Review Panel	The panel as set out in GC5 of the General Conditions
Grid Code Test	A test that is to be mutually agreed, with agreement not to be unreasonably withheld, and conducted in accordance with Grid Code .
Grid Connected	Connected to the Transmission System
Grid Connected Transformer	Any transformer directly connected to the Transmission System .
Grid Connection Point	The point at which a Generating Unit or a CCGT Installation or a CCGT Unit or a Customer or an External System , is directly connected to the Transmission System .
Grid Supply Point or GSP	A point of connection between the Transmission System and the Distribution System or a Demand Customer or other network operator.
Hot Cooling Boundary	The period of time, following De-Synchronisation of a Generating Unit after which the Warmth State transfers from

	being hot to being warm.
Hot Start	Any Synchronisation of a Generating Unit that has previously not been Synchronised for a period of time shorter than or equal to its submitted Hot Cooling Boundary .
Hydro Unit	A Unit which generates electricity from the movement of water excluding Pumped Storage .
In Writing	This includes typewriting, printing, lithography, electronic mail, facsimile and other modes of reproducing words in a legible and non-transitory form;
Incremental Price	The marginal price at a particular MW Output , for increasing Energy output (or reducing demand) by 1 MWh , once that unit has started to generate Energy (or reduce Demand , as the case may be).
Independent Sector Users	A person who has been authorised by the TSO to use the interconnector pursuant to a valid Use of System Agreement.
Indicative Market Schedule	The schedule prepared by the Market Operator pursuant to the TSC .
Indicative Operations Schedule	The schedule prepared by the TSO conjunction with the Other TSO pursuant to SDC1.4.8.1.
Indicative Outage Programme	A programme of Outages of the Generator's Generation Units prepared by the TSO pursuant to OC2 and covering years 4-7 ahead.
Individual Demand Site	A single premises of a Demand Customer connected to the Transmission System or Distribution System with a Demand Reduction Capability . The Individual Demand Site shall have a Maximum Import Capacity and shall not have a Maximum Export Capacity
Initial Demand Reduction	The Demand Reduction of a Demand Side Unit following a Dispatch Instruction from the TSO when the Demand Reduction is at 0 MW for a period greater than 24 hours.
Initial Demand Reduction Time	The time as specified by the Dispatchable Demand Customer in the Technical Parameter and is the time it takes for the Dispatchable Demand Customer to be able to implement the Initial Demand Reduction from receipt of the Dispatch Instruction from the TSO .
Interconnection Agreement	A bilateral agreement between the TSO and an External System

	Operator
Interconnector	Electric lines and electric Plant used for conveying electricity or provision of Reserves from outside both of Northern Ireland and the Republic of Ireland directly to or from a substation or converter station in either Northern Ireland or the Republic of Ireland.
Interconnector Filter	A tuned device within an HVDC Interconnector which prevents the transmission of harmonics to the Transmission System to which that Interconnector is connected and which also provides a means of controlling the Mvar flow to and from that HVDC Interconnector .
Interconnector Owner	A person who owns an Interconnector .
Interconnector User	Users importing or exporting electricity through the Interconnector , but excluding residual capacity holders as defined in the TSC .
Inter-jurisdictional Tie Line	The lines, facilities and equipment that connect the transmission system of the Republic of Ireland to the transmission system of Northern Ireland.
Intermediary	The person representing a Generating Unit for the purposes provided for in the TSC .
Interruptible Tariff	Special tariff paid for Energy due to the arrangement that the Customer is automatically interruptible by use of Under Frequency Relay or other means in accordance with arrangements made between the Customer [and Supplier].
Interruptible Tariff Customers	Customers who purchase electricity under an Interruptible Tariff .
Initial Symmetrical Short-Circuit Current	RMS value of the AC symmetrical component of a prospective (available) short-circuit current applicable at the instant of short circuit if the impedance remains at the zero time value.
Investigation	Investigation carried out by the TSO under OC10, and "Investigate" shall be construed accordingly.
Joint Grid Code Review Panel	The panel as set out in GC.6 of the General Conditions
Licence	An electricity generation licence or an electricity supply licence, as the context requires, granted pursuant to Section 14 of the Act .
Licence Standards	The standards set out or referred to in the TSO Licence .
Load	The Active Power or Reactive Power , as the context requires, generated, transmitted or distributed and all like terms shall be

	construed accordingly.
Load Factor	The ratio of the actual electrical Energy produced by a Generation Unit to the possible maximum electrical Energy that could be produced by that Generation Unit in any defined period
Load Up Break Point Cold	The break point which defines the shared MW boundary between the two Loading Rates Cold . The first Loading Rate Cold applies from Block Load to the first Load Up Break Point Cold , the second Loading Rate Cold applies from the first Load Up Break Point Cold to the second Load Up Break Point Cold , the third Loading Rate Cold applies from the second Load Up Break Point Cold to the end point of the Start Up period, which should be set equal to the Minimum Generation .
Load Up Break Point Hot	The break point which defines the shared MW boundary between the Loading Rates Hot . The first Loading Rate Hot applies from Block Load to the first Load Up Break Point Hot , the second Loading Rate Hot applies from the first Load Up Break Point Hot to the second Load Up Break Point Hot , the third Loading Rate Hot applies from the second Load Up Break Point Hot to the end point of the Start Up period, which should be set equal to the Minimum Generation .
Load Up Break Point Warm	The break point which defines the shared MW boundary between the Loading Rates Warm . The first Loading rate applies from Block Load to the first Load Up Break Point Warm , the second Loading Rate Hot applies from the first Load Up Break Point Warm to the second Load Up Break Point Warm , the third Loading Rate Warm applies from the second Load Up Break Point Warm to the end point of the Start Up period, which should be set equal to the Minimum Generation .
Loading Rate	The Loading Rate Cold , Loading Rate Hot or Loading Rate Warm as the case may be.
Loading Rate Cold	The rate at which a Generating Unit increases Output from Block Load to Minimum Generation when it is instructed to Cold Start . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Loading Rate Hot	The rate at which a Generating Unit increases Output from Block Load to Minimum Generation when it is instructed to Hot Start .

	There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Loading Rate Warm	The rate at which a Generating Unit increases Output from Block Load to Minimum Generation when it is instructed to Warm Start . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Low Frequency Relay	An electrical measuring relay intended to operate when its characteristic quantity (Frequency) reaches the relay settings by decrease in Frequency .
Margin	The difference between maximum Active Power (net of Auxiliary Loads) from Available Generation Units and net System Demand expressed in MW.
Market Operator	Shall have the meaning set out in the TSC .
Max Ramp Down Rate	The maximum Ramp Down Rate of a Demand Side Unit . In the case of a Demand Side Unit which consists of an Aggregated Demand Site this shall be the aggregated maximum Ramp Down Rate of the Individual Demand Sites .
Max Ramp Up Rate	The maximum Ramp Up Rate of a Demand Side Unit . In the case of a Demand Side Unit which consists of an Aggregated Demand Site this shall be the aggregated maximum Ramp Up Rate of the Individual Demand Sites .
Maximisation	An increase in MW Output above the Registered Capacity up to the level of the Short Term Maximisation Capability , and the terms " Maximise " and " Maximised " shall be construed accordingly.
Maximisation Instruction	An instruction issued by the TSO to the Generator to Maximise the MW Output of a Generation Unit .
Maximum Continuous Rating	The maximum capacity (MW) (or effective rating), modified for ambient limitations, that a Generation Unit can sustain indefinitely without loss of equipment life, less the capacity used to supply the Auxiliary Load .
Maximum Down Time	The maximum period of time during which Demand Reduction at a Demand Side Unit can be Dispatched .
Maximum Export Capacity	The value (in MW, MVA, kW and/or kVA) provided in accordance with the User's Connection Agreement

Maximum Import Capacity	The values (kW and/ or kVA) provided in accordance with the User's Connection Agreement
Maximum On Time	The maximum time that a Generating Unit can run following Start Up .
Maximum Storage Capacity	The maximum amount of Energy that can be produced from the reservoir of a Pumped Storage Generator for a Trading Day .
Measurement Point	The Measurement Point shall be the Connection Point to the Transmission System or such other point or points as may be agreed between the TSO and the User .
Merit Order	An order, compiled by the TSO in conjunction with the Other TSO pursuant to SDC1, of CDGUs, Controllable WFPSs, Demand Side Units, Pumped Storage Plant Demand and Aggregated Generating Units Price Sets and/or Interconnector Price Quantity Pairs or Price Quantity Pairs of equivalent units in Northern Ireland.
Meteorological Mast	A device erected at the Controllable WFPS which has the capability measure representative wind speed, wind direction, air temperature and air pressure to a degree of accuracy corresponding to the appropriate prevailing European Standard at that time.
Meter	A device for measuring and recording units of electrical energy.
Metering Code	The code that specifies the minimum technical design and operational criteria to be complied with for metering and data collection equipment and associated procedures as required under the Trading and Settlement Code .
Metering Equipment	Meters , time switches, measurement transformers, metering protection and isolation equipment, circuitry and their associated data storage and data communications equipment and wiring which are part of the Active Energy and Reactive Energy measuring equipment at or related to a Site .
Minimum Demand Regulation (MDR)	That minimum margin of Active Power to provide a sufficient regulating margin for adequate Frequency Control .
Minimum Down Time	In the case of Demand Side Units , the minimum period of time during which Demand Reduction at a Demand Side Unit can be Dispatched . In the case of Generation Units , the minimum time that must

	elapse from the time a Generation Unit De-Synchronises until the next Start-Up .
Minimum Generation	The minimum MW Output which a Generating Unit can generate continuously, registered with the TSO under SDC1 as a Technical Parameter .
Minimum Load	Minimum MW Output a Generator can maintain on a continuous basis, whilst providing System Services .
Minimum off time	The minimum time that must elapse from the time of a Generation Unit Shutdown before it can be instructed to Start-up .
Minimum on time	The minimum time that must elapse from the time of a Generation Unit Start-up before it can be instructed to Shutdown .
Minimum Storage Capacity	The minimum amount of Energy that must be produced from the reservoir of a Pumped Storage Generator for a Trading Day .
Minimum Up Time	The minimum time that must elapse from the time of a Generation Unit Start-up before it can be instructed to Shutdown .
Modification	Any actual or proposed replacement, renovation, modification, alteration or construction by or on behalf of a User or the TSO to either that User's Plant or Apparatus or the TSO's Plant or Apparatus or the TAO's Plant or Apparatus , as the case may be, or the manner of its operation which has or may have a Material Effect on a User or the TSO , as the case may be, at a particular Connection Site .
Monitoring	Monitoring carried out by the TSO under OC10, and " Monitor " shall be construed accordingly.
Mvar Output	The Reactive Power produced or absorbed by a Generation Unit net of Generation Unit Auxiliary Load
MW Dispatch Instruction	An instruction given by the TSO from its National Control Centre to the Generator's approved contact person or location regarding the MW Output of the Generation Unit .
MW Output	The actual Active Power output in MW of a Generation Unit at the Connection Point .
National Control Centre	The TSO's National Control Centre, as notified by the TSO to the Generator from time to time.
Network	The Transmission System and the Distribution System taken together.

Network Control	Network switching and Control Actions that the TSO needs to carry out in implementing the Transmission Outage Programme , in routine operation of the Transmission System and in responding to emergency and fault situations on the Transmission System , which may from time to time affect the operations of Users or security of supply to Users .
NI System	Together, the Other Transmission System and the distribution system in Northern Ireland.
No Load Cost	A price which forms part of Commercial Offer Data expressed in € or £/hour and which is invariant in the level of MW Output and which applies at all times when the level of MW Output is greater than zero.
Non- Centrally Dispatched Generation Unit (NCDGU)	A Generating Unit not subject to Central Dispatch .
Nomination Profile	The profile of the MW Output intended for a Generating Unit in respect of each Trading Period in the Trading Day as submitted under the TSC .
Normal Dispatch Condition	The condition of the Generation Unit at the End of the Start-up Period .
Notice to Synchronise	A Dispatch instruction given by the TSO from its National Control Centre to the Generator's approved contact person or location to synchronise the Generation Unit .
Open Cycle Gas Turbine Unit	A Generation Unit driven by a gas turbine other than a CCGT Installation or CCGT Unit .
Open Cycle Mode	The mode of operation of a CCGT Installation where only the Gas Turbine Unit is operational (i.e. without operation of any associated Steam Turbine Units).
Operating Characteristics	The technical capabilities, flexibilities and limitations for the operation of a Generation Unit as registered or declared in accordance with the provisions of the Grid Code .
Operating Code (OC)	The part of Grid Code which is identified as the Operating Code
Operating Margin	Contingency Reserve and Operational Reserve .
Operating Mode	An Operating Mode of a Generating Unit is a pre-defined method of operating that Generating Unit , as agreed between the TSO and the User .

Operating Reserve	The additional MW Output required from Generation Units (or Demand reduction) which must be realisable in real time operation to contain and correct any potential Power System Frequency deviation to an acceptable level. It will include Primary Operating Reserve , Secondary Operating Reserve and Tertiary Operating Reserve
Operation	A scheduled or planned action relating to the operation of a System (including an Embedded Independent Generating Plant).
Operation Instructions	Management instructions and procedures, both in support of the Safety Rules and for the local and remote operation of Plant and Apparatus , issued in connection with the actual operation of Plant and/or Apparatus at or from a Connection Site .
Operational Control Phase	The period from real time to one week ahead of real time.
Operational Data	Data required under the Operating Codes and/or Scheduling and Dispatch Codes .
Operational Date	When the TSO is satisfied that all of the Grid Code Tests have been carried out correctly and satisfactorily completed the TSO will as soon as is practicable notify the User , specifying the time and date of such completion.
Operational Effect	Any effect on the operation of the relevant other system that causes the Transmission System or the User's System to operate (or be at a materially increased risk of operating) differently to the way in which they would or may have normally operated in the absence of that effect. Operationally Effected shall be construed accordingly.
Operational Planning Phase	The period from 1 week to the end of the 7 th year ahead of real time
Operational Tests	Tests carried out by the TSO in order to maintain and develop operational procedures, to train staff and to acquire information in respect of Transmission System behaviour under abnormal System conditions, and also tests carried out by other Users for similar purposes in respect of their Plant .
OPTEL	The operational telephony system owned by ESB and used by the TSO for voice communication with Users .
Optimisation Time Horizon	The time period from and including 06:00 hours on the relevant Trading Day up to but not including 12:00 hours on the subsequent

	Trading Day.
Other Grid Code	The code prepared pursuant to the licence to carry out electricity transmission activities granted to the Other TSO pursuant to Article 10(1)(b) of the Electricity (Northern Ireland) Order 1992 in Northern Ireland, as from time to time revised in accordance with such licence.
Other Relevant Data	The data referred to in SDC1.4.4.4.
Other Transmission System	The transmission system operated by the Other TSO in Northern Ireland.
Other TSO	The holder of a licence granted pursuant to Article 10(1)(b) of the Electricity (Northern Ireland) Order 1992 in Northern Ireland to participate in the transmission of electricity in the capacity of co-ordinating and directing the flow of electricity onto and over the Other Transmission System .
Outage	<p>In relation to a Generation Unit, a total or partial reduction in Availability such that the Generation Unit is unavailable to achieve its full Registered Capacity in accordance with its Registered Operating Characteristics.</p> <p>In relation to a Demand Side Unit, a total or partial reduction in Availability such that the Demand Side Unit is unavailable to achieve its full Demand Reduction Capability in accordance with its submitted Technical Parameters.</p>
Partial Shutdown	The situation existing when all generation has ceased in part of the Power System and there is no electricity supply from External Interconnection or any other part of the System .
Phase Voltage	Voltage measured between the line and System neutral.
Planned Rota Load Shedding	Planned De-Energisation of Customers on a rota basis where there is a significant shortfall of Generation required to meet the Total Demand for a protracted period.
Planning Code	That part of Grid Code which is identified as the Planning Code
Plant	Fixed and movable items used in the generation and/or consumption of and/or supply and/or transmission of electricity other than Apparatus .
Post Control Phase	The days following the Control Phase

Post Event Notice	A notice issued by the TSO in accordance with OC10
Power Factor	The ratio of Active Power to Apparent Power .
Power Quality	Target conditions for power quality and the variation in power quality that can be expected at Grid Connection Points .
Power Station	An installation consisting of Generation Unit(s) .
Power System	The Transmission System and all User System's within the Republic of Ireland.
Power System Restoration	The restoration of the Power System or part of the Power System to a state of normal operation from a state of Total Shutdown or Partial Shutdown as the context requires.
Power System Restoration Plan	A plan, prepared and maintained by the TSO pursuant to OC9 setting out guidelines assisting those involved in Power System Restoration to achieve Power System Restoration as safely and as quickly as possible.
Power System Stabiliser	Device that injects a supplementary signal into the AVR (Automatic Voltage Regulator) in order to improve Power System damping.
Pre-Incident Frequency	The value is the average Transmission System Frequency between 60 and 30 seconds prior to the occurrence of a significant Frequency disturbance.
Preliminary Project Planning Data	Data relating to a proposed User Development at the time the User applies for a Connection and Use of System Agreement and/or a supplemental Agreement but before an offer is made and accepted.
Price Quantity Pairs	Incremental Prices and their respective quantity ranges for Generating Units, Demand Side Units, Aggregated Generating Units and Interconnector tranches as part of Commercial Offer Data .
Price Sets	The Price Quantity Pairs, Start-up Costs, Shutdown Costs and No Load Costs submitted by a User under SDC1.
Primary Frequency Control	Primary Frequency Control takes place in the period of up to 30 seconds after a change in Frequency and is achieved by automatic corrective responses to Frequency deviations occurring on the Transmission System . This automatic correction arises from: (a) natural frequency demand relief of motor load; (b) automatic MW output adjustment of Generation Units initiated

	<p>by Governor Droop or other responses including peaking of Combustion Turbine Units, condensate stop or frequency triggered response of pumped storage units;</p> <ul style="list-style-type: none"> • automatic load shedding
Primary Fuel	The fuel or fuels registered in accordance with the Grid Code as the principal fuel(s) authorised for Energy production by the Generation Unit
Primary Operating Reserve (POR)	The additional increase in MW Output (and/or reduction in Demand) required at the Frequency nadir (minimum), compared to the pre-incident output (or Demand) where the nadir occurs between 5 and 15 seconds after an event. If the actual Frequency nadir is before 5 seconds or after 15 seconds after the event, then for the purpose of POR monitoring the nadir is deemed to be the lowest Frequency which occurred between 5 and 15 seconds after the event.
Priority Customers	<p>Customers which are either:</p> <ul style="list-style-type: none"> • exempt from load shedding under the rota load shedding scheme or • exempt from load shedding under the technical under-frequency load shedding scheme or • prioritised for supply under the technical under-frequency load shedding scheme.
Priority Dispatch	The Dispatch given priority as afforded under governing legislation in either jurisdiction.
Programming Phase	The period between Operational Planning Phase and the Control Phase . It starts at the 1 week ahead stage and finishes with the issue of the Generation Schedule for the day ahead
Provisional Outage Programme	An Outage programme of the Generator's Generation Units prepared by the TSO pursuant to OC2 and covering years 2-3 ahead.
Provisional Running Orders	A statement prepared and issued by the TSO to the Generator pursuant to SDC1, which indicates for each Generation Unit owned or controlled by the Generator , the expected load pattern, the required fuel or fuels and Synchronising and De-Synchronising times for the following day.
Prudent Utility Practice	Those standards, practices, methods and procedures conforming

	to safety and legal requirements which are attained by exercising that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from skilled and experienced operatives engaged in the same type of undertaking under the same or similar circumstances.
Pumped Storage Generation	A Pumped Storage Plant in its operation of producing Energy by releasing water from an upper reservoir.
Pumped Storage Generator	A Generator which owns and/or operates any Pumped Storage Plant .
Pumped Storage Mode	A mode of operation of a Pumped Storage Unit including
Pumped Storage Plant	A Generation Plant that produces Active Energy using water from an upper reservoir and takes energy by pumping water up to the same reservoir.
Pumped Storage Plant Demand	A Pumped Storage Plant in its operation of consuming Energy by pumping water to an upper reservoir.
Pumped Storage Unit	A Generation Unit within a Pumped Storage Plant .
Ramp Down Break Point	The MW level at which the Ramp Down Rate changes. There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Ramp-down Capability	The rate of decrease in a Generation Unit' Output after the End Of Start-up Period . Ramp-down Capabilities apply over the output range from its Registered Capacity to Minimum generation . The rate of change is not dependent upon the initial warmth of the plant but may depend on the MW Output .
Ramp Down Rate	The maximum rate of decrease in a Generating Unit's Output after the End Of Start-up Period . The Ramp Down Rate applies over the output range from its Registered Capacity to Minimum Generation . The rate of change is not dependent upon the initial Warmth of the plant but may depend on the MW Output . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Ramp Up Break Point	The MW level at which the Ramp Up Rate changes. There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.

Ramp-up Capability	The rate of increase in a Generation Unit' Output after the End Of Start-up Period . This rate of increase continues until the Generation Unit reaches the level of output instructed by the control room operator or its Registered Capacity . Following the End Of Start-up Period , the rate of increase is not dependent upon the initial warmth of the plant but may depend on the MW Output .
Ramp Up Rate	The maximum rate of increase in a Generating Unit's Output after the End Of Start-up Period . This rate of increase continues until the Generating Unit reaches the level of output instructed by the control room operator of its Registered Capacity . The rate of increase is not dependent upon the initial Warmth of the plant but may depend on the MW Output . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Reactive Power	Means the product of voltage and current and the sine of the phase angle between them measured in units of volt-amperes reactive and standard multiples thereof.
Red Alert	An Alert issued by the TSO to the User in the circumstances set out in OC9
Re-declaration	Notification to the TSO by the User of any revisions to data, pursuant to SDC1.4.5.
Registered Capacity	The maximum Capacity , expressed in whole MW, that a Generation Unit can deliver on a sustained basis, without accelerated loss of equipment life, at the Connection Point . This shall be the value at 10°C, 70 % humidity and 1013 hPa and shall be in accordance with the User's Connection Agreement .
Registered Data	Those items of Standard Planning Data and Detailed Planning Data that upon connection become fixed (subject to any subsequent changes).
Registered Fuel	The fuel(s) registered under the Planning Code of the Grid Code
Registered Operating Characteristics	The values of a Generation Unit's Operating Characteristics for operation of the Generation Unit pursuant to the Grid Code registered under the Connection Conditions .
Regulating Margin	The margin of generating Capacity that is Synchronised over Demand which is required in order to maintain Frequency

	Control.
Regulatory Authority	The authority appointed under legislation to regulate the electricity industry in the respective jurisdiction. In the Republic of Ireland it is the Commission and in Northern Ireland it is NIAUR (Northern Ireland Authority for Utility Regulation).
Regulatory Authorities	Each Regulatory Authority taken together.
Remote Terminal Unit (RTU)	A device that collects, codes and transmits data. An RTU collects information from a master device and implements processes that are directed by that master. RTUs are equipped with input channels for sensing or metering, output channels for control, indication or alarms and a communications port.
Remote Transmission Assets	Any Plant and Apparatus or meters owned by the TAO which: <ul style="list-style-type: none"> a) are Embedded in a User System and which are not directly connected by Plant and/or Apparatus owned by the TAO to a sub-station owned by the TAO; and b) are by agreement between the TAO and such User operated under the direction and control of such User.
Replacement Reserve	Replacement Reserve is the additional MW Output (and/or reduction in Demand) required compared to the pre-incident output (or Demand) which is fully available and sustainable over the period from 20 minutes to 4 hours following an Event .
Reserve Characteristics	The MW level of reserve available at any given MW Output of a CDGU as set out in the available Ancillary Service Agreement .
Responsible Manager	A manager who has been duly authorised by a User or the TSO to deal with issues including matters related to the Grid Code on behalf of that User or the TSO , as the case may be.
Responsible Operator	A person nominated by a User to be responsible for control of Plant and Apparatus related to the User's System
Rota Load Shedding Plan	A plan that provides for disconnection and reconnection of defined blocks of demand on instruction from the TSO
Safety Rules	ESB Networks Electrical Safety Rules, ESB Power Generation Electrical Safety Rules or the rules of a User , compliance with which ensures that persons working on Plant and/or Apparatus to which the rules apply are safeguarded from hazards arising from the System .

Scheduled Operational Date	Has the meaning set out in the Connection Agreement .
Scheduled Outage	Any Fixed Outage , Flexible Outage or Short Term Scheduled Outage .
Scheduling and Dispatch Code (SDC)	The parts of the Grid Code which specify the Scheduling and Dispatch process.
Sections Under Common Governance	In order to support the efficient running of the SEM , certain sections of the Grid Code are under common governance. Modifications and derogations to these sections of the Grid Code will effectively require agreement and direction from both Regulatory Authorities . SDC1 and SDC2 are the Sections Under Common Governance .
Secondary Frequency Control	Secondary Frequency Control takes place in the time scale from 5 seconds up to 10 minutes after the change in Frequency . It is provided by a combination of automatic and manual actions. These include: (a) a contribution from automatic governor action and other control systems on Generation Units ; (b) manual action by Generation Unit operators altering the MW Output of Generation Units in response to Dispatch Instructions issued by the TSO in accordance with SDC2.
Secondary Fuel	The fuel or fuels registered in accordance with the Grid Code as the secondary or back-up fuel(s) authorised for Energy production by the Generation Unit .
Secondary Operating Reserve (SOR)	The additional MW Output (and/or reduction in Demand) required compared to the pre-incident output (or Demand), which is fully available by 15 seconds from the time of the start of the Frequency fall and sustainable up to 90 seconds following an Event .
Settlement Day	The period from 0000 to 2400 hours in each day.
Short Notice Re-declaration	A Re-declaration where changes apply to values relating to Trading Periods occurring within 4 hours of receipt by the TSO of the Re-declaration .
Short-Term Maximisation Capability	The capability of a Generating Unit to deliver, for a limited duration of time, MW Output greater than its Registered Capacity .
Shutdown	The condition of a Generation Unit where the generator rotor is at rest or on barring.

Shutdown Costs	The costs associated with shutting down a Demand Side Unit.
Significant System Incident (SSI)	Events which have had or might have had or might have an operational effect on the Transmission System or a User's System .
Simultaneous Tap Change	A tap change implemented on the generator step-up transformers of CDGUs , effected by Generators in response to a Dispatch Instruction from the TSO issued simultaneously to the relevant Power Stations . The Dispatch Instruction , which is normally preceded by advance warning, must be effected within 1 minute of receipt from the TSO of the Dispatch Instruction .
Single Electricity Market (SEM)	The wholesale all-island single electricity market established and governed pursuant to the relevant legislation and the TSC .
Site	A TSO Site , TAO Site or User Site , as the case may be.
Small Scale Generators	(i) Generators with Registered Capacity of 2MW or less (on a single Site); and Generators with Registered Capacity less than 5MW (on a single Site) and greater than 2MW (on a site basis) where the TSO consider that the Generator is in a location that does not make its operation particularly critical to the operation of the Transmission System .
Soak Time Cold	The duration of time for which the Generating Unit must remain at the Soak Time Trigger Point Cold during a Cold Start . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Soak Time Hot	The duration of time for which the Generating Unit must remain at the Soak Time Trigger Point Hot during a Hot Start . . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Soak Time Trigger Point Cold	A constant MW level at which a Generating Unit must remain while loading up between Block Load and Minimum Generation after a Cold Start . . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Soak Time Trigger Point Hot	A constant MW level at which a Generating Unit must remain

	while loading up between Block Load and Minimum Generation after a Hot Start . . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Soak Time Trigger Point Warm	A constant MW level at which a Generating Unit must remain while loading up between Block Load and Minimum Generation after a Warm Start . . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Soak Time Warm	The duration of time for which the Generating Unit must remain at that Soak Time Trigger Point Warm during a Warm Start . . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Special Action	Those actions referred to in SDC2.4.3.
Special Protection Scheme	A control or protection scheme to facilitate System operation by the intertripping of circuit breakers or other Control Actions .
Spin Generation	A mode of operation of a Pumped Storage Unit where it is spinning in air in the same direction as it would if it was generating Active Power
Spin Pump	A mode of operation of a Pumped Storage Unit which is intermediate between the Unit being at standstill and pumping.
Standard Planning Data	The general data required by the TSO under the PC . It is generally also the data that the TSO requires from a new User in applications for Connection and Use of System Agreements .
Standing Technical Offer Data	Technical offer data provided on registration to the TSC , and updated in accordance with the TSC , by a User of each of its Units in accordance with the TSC . For CDGUs with a Registered Capacity of 10 MW or less, this data shall be advised directly to the TSO .
Start of Restricted Range	The start point in MW of a Forbidden Zone . There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Start-Up	The action of bringing a Generation Unit from Shutdown to Synchronous Speed .
Start-Up Cost	The costs associated with Start-Ups .

Station Board	A switchboard through which electrical power is supplied to the Auxiliaries of a Power Station , and which is supplied by a Station Transformer . It may be interconnected with a Unit Board .
Station Transformer	A transformer supplying electrical power to the Auxiliaries of a Power Station , which is not directly connected to the Generating Unit terminals.
Steam Unit	A Generation Unit whose prime mover converts the heat-energy in steam to mechanical energy.
Step Change	A step change is defined as a single, rapid change of the RMS voltage. Transmission System step changes can occur due to switching in and out of capacitors, lines, cables, transformers and other plant.
Substitute Reserve	The additional MW output (and/or reduction in Demand) required compared to the pre-incident output (or Demand) which is fully available and sustainable over the period from 4 hours to 24 hours following an Event .
Supplier	The holder of a Supply Licence .
Supply	The process of delivering electrical energy by a Supplier ; also, the amount of electric energy delivered, usually expressed in megawatthours (MWh).
Synchronise	The condition where an incoming Generation Unit or system is connected to another System so that the frequencies and phase relationships of that Generation Unit or System , as the case may be, and the System to which it is connected are identical and the terms " Synchronise ", " Synchronising " and " Synchronisation " shall be construed accordingly.
Synchronous Compensation	The operation of rotating synchronous Apparatus for the specific purpose of either the Generation or absorption of Reactive Power .
Synchronous Start-Up Time Cold	The time taken to bring a Generating Unit to a Synchronised state from a Cold (De-Synchronised) state.
Synchronous Start-Up Time Hot	The time taken to bring a Generating Unit to a Synchronised state from a Hot (De-Synchronised) state.
Synchronous Start-Up Time	The time taken to bring a Generating Unit to a Synchronised

Warm	state from a Warm (De-Synchronised) state.
System	Any User System and/or the Transmission System as the case may be.
System Capacity Shortfall Warning	A warning issued by the TSO if, the Availability forecast and Demand forecast indicate that there will be a deficit in any week,
System Emergency Condition	<p>A Partial Shutdown or Total Shutdown or any other physical or operational condition and/or occurrence on the Power System which, in the TSO's opinion, is</p> <p>(i) imminently likely to endanger or is endangering life or property; or</p> <p>(ii) is imminently likely to impair or is impairing:</p> <p style="padding-left: 40px;">(a) the TSO's ability to discharge any statutory, regulatory or other legal obligation and/or</p> <p style="padding-left: 40px;">(b) the safety and/or reliability of the Power System.</p>
System Planning	The process by which the performance of the System is evaluated and future changes and additions to the System are determined.
System Planning Data	Data that must be submitted at regular periods by all Users , or other such data or information as requested by the TSO under PC.6
System Services	Services which are required for System reasons and which include those which must be provided by Users in accordance with the Connection Conditions and those which must be provided by a User if the User has agreed to provide them under supplemental agreements
System Support Agreement	A bilateral agreement between the TSO and a User for services which are required for System reasons and which exclude those which must be provided by Users in accordance with the Connection Conditions .
System Support Services	Those services defined as System Support Services in Condition 1 of the TSO Licence granted to the Other TSO .
System Test	Tests which involve simulating conditions, or the controlled application of irregular, unusual or extreme conditions, on the System , or any part of the System , but which do not include Commissioning or recommissioning tests or any other tests of a minor nature.

Target Frequency	That Frequency determined by the TSO , in its reasonable opinion, as the desired operating Frequency of the Power System .
Target Reservoir Level Percentage	As defined in the TSC .
Target Reservoir Levels	Part of the Commercial Offer Data for a Pumped Storage Generating Unit and means the target level of the reservoir for the end of the Trading Day .
Technical Parameters	The technical capabilities, flexibilities and limitations for the operation of a User's Plant as registered or declared in accordance with the provisions of the Grid Code including those parameters listed in Appendix A to SDC1.
Technical Parameters Notice	A notification as submitted under SDC1.4.4.1.
Tertiary Operating Reserve	Tertiary Operating Reserve band 1 and Tertiary Operating Reserve band 2
Tertiary Operating Reserve band 1	The additional MW Output (and/or reduction in Demand) required compared to the pre-incident output (or Demand) which is fully available and sustainable over the period from 90 seconds to 5 minutes following an event.
Tertiary Operating Reserve band 2	The additional MW Output (and/or reduction in Demand) required compared to the pre-incident output (or Demand) which is fully available and sustainable over the period from 5 minutes to 20 minutes following an event.
Test Proposer	The User submitting proposal for a test under OC8.
Testing	Testing carried out by the TSO pursuant to OC10 and/or CC and the term " Test " shall be construed accordingly.
Thermal Overload	A Thermal Overload occurs when the designed thermal rating of a transmission line or cable is exceeded. The thermal rating of a transmission line is dictated by its physical construction and varies with the ambient weather conditions, while the thermal rating of a transmission cable is dependent solely on its physical construction.
Thermal Plant	A Generating Unit that uses any source of thermal Energy .
Total Shutdown	The situation existing when all generation has ceased and there is no electricity supply from External Interconnection .

Total Transfer Capacity	The total amount of power that can be exchanged continuously to or from the Transmission System over the Interconnector while ensuring the safe operation of the Transmission System . It is set based on physical and electrical realities according to system security requirements including thermal limits (including single contingencies), voltage limits and stability limits.
Trading and Settlement Code	The Single Electricity Market Trading and Settlement Code adopted by the Market Operator and approved by the Regulatory Authorities
Trading Day	A 24-hour period combining forty-eight 30 minute Trading Periods (except on the clock change days in spring and autumn when the period will be 23 and 25 hours respectively with forty-six and fifty 30 minute Trading Periods respectively). Each Trading Day commences at 06.00 hours.
Trading Period	A thirty minute period beginning on the hour or the half-hour.
Transmission Asset Owner (TAO)	The ESB , acting in its capacity as the Transmission System Owner .
Transmission Planning Criteria	System Planning practices and considerations that the TSO follows. The application of Transmission Planning Criteria may vary to match local conditions and local System requirements. The Transmission Planning Criteria are available on the TSO's website.
Transmission Reliability Margin	A transmission transfer capacity margin which accounts for the security margin for regulation, reserve sharing, and Rescue Flows between the Transmission System and any External System and may also take into account uncertainties of system conditions and other assumptions made to produce Total Transfer Capacity ex-ante.
Transmission Station	A node in the electricity Transmission System with transmission circuit/s, transformer/s, circuit breakers and their associated protection and communications systems.
Transmission System	The System consisting (wholly or mainly) of high Voltage electric lines and cables operated by the TSO for the purposes of transmission of electricity from one Power Station to a sub-station or to another Power Station or between sub-stations or to or from any External Interconnection including any Plant and Apparatus and meters owned or operated by the TSO or TAO in connection

	with the transmission of electricity.
Transmission System Operator (TSO)	The holder of the licence granted pursuant to Section 14 of the Act 1999 to operate a Transmission System .
Transmission System Owner	The holder of the licence granted pursuant to Section 14 of the Act to own the Transmission System .
TSO Licence	A Licence authorising a TSO to carry out electricity transmission activities, granted either pursuant to Article 10(1)(b) of the Electricity (Northern Ireland) Order 1992 in Northern Ireland or pursuant to section 14 of the Electricity Regulation Act 1999 in the Republic of Ireland.
TSO Telecommunication Interface Cabinet	The physical interface point between the TSO's telecommunications equipment and the Controllable WFPS's control equipment.
Under Test Flag	The flag indicating the under test status accorded to certain Generating Units by the TSO in accordance with the relevant Grid Code . Under Test in accordance with the TSC is subject to the requirements both that the Market Operator has verified the status with the TSO and that the relevant Unit is so permitted as set out in paragraph 5.169 of the TSC .
Unit Board	A switchboard through which electrical power is supplied to the Auxiliaries of a Generating Unit and which is supplied by a Unit Transformer . It may be interconnected with a Station Board .
Unit Transformer	A transformer directly connected to a Generating Unit's terminals, and which supplies power to the Auxiliaries of a Generating Unit .
Use of System Agreement	An agreement between the TSO and a User setting out the terms relating to the use of the Transmission System .
Use of System Tariffs	Tariffs set by the TSO subject to approval by the Commission for use of the Transmission System .
User	A term utilised in various sections of the Grid Code to refer to the persons using the Transmission System , as more particularly identified in each section of the Grid Code concerned. The term means any person (other than the TSO) to whom the Grid Code applies.
User Development	In the Planning Code means either User's Plant and/or Apparatus to be connected to the Transmission System , or a

	<p>Modification relating to a User's Plant and/or Apparatus already connected to the Transmission System, or a proposed new connection or Modification to the connection within the User System.</p>
User Site	<p>A site owned (or occupied pursuant to a lease, licence or other agreement) by a User in which there is a Connection Point.</p>
User System	<p>Any system owned or operated by a User comprising:-</p> <p>(i) Generating Units;</p> <p>and/or</p> <p>(ii) systems consisting (wholly or mainly) of electric circuits used for the distribution of electricity from Grid Supply Points or Generating Units or other entry points to the point of delivery to Customers, or other Users;</p> <p>and Plant and/or Apparatus connecting:-</p> <p>(i) the system as described above; or</p> <p>(ii) Demand Customers' equipment;</p> <p>to the Transmission System or to the relevant other User System, as the case may be.</p> <p>The User System includes any Remote Transmission Assets operated by such User or other person and any Plant and/or Apparatus and meters owned or operated by the User or other person in connection with the distribution of electricity but does not include any part of the Transmission System.</p>
User System Entry Point	<p>A point at which a Generation Unit, a CCGT Installation or a CCGT Unit, as the case may be, which is Embedded connects to the User System.</p>
Var	<p>A single unit of Reactive Power.</p>
Voltage	<p>Voltage of relevant section of Transmission System - nominally 400kV, 220kV or 110kV</p>
Voltage Control	<p>The retention of the Voltage on the System within acceptable limits.</p>
Voltage Regulation	<p>The automatic adjustment of Reactive Power output from a Generation Unit(s) in response to Voltage changes in response to Voltage changes (e.g. from a Generation Unit).</p>

Voltage Regulation Set-point	The Voltage in kV that the Voltage Regulation System will act to regulate by continuous modulation of the Wind Farms Power Station's Reactive Power .
Voltage Regulation System	A facility providing the means to automatically adjust the Reactive Power output (e.g from a Generation Unit(s)) in response to changes in Voltage .
Voltage Regulation System Slope Setting	The percentage change in Transmission System Voltage that would cause the Reactive Power output of the Controllable WFPS to vary from maximum Mvar production to maximum Mvar absorption or vice-versa.
Warm Cooling Boundary	The period of time, which must be greater than that defined by the Hot Cooling Boundary , post De-Synchronisation of a Generating Unit after which the Generating Unit's Warmth State transfers from being warm to cold.
Warm Start	Any Synchronisation of a Generating Unit that has previously not been Synchronised for a period of time longer than its submitted Hot Cooling Boundary and shorter than or equal to its submitted Warm Cooling Boundary .
Warmth	The temperature related condition of a CDGU which changes according to the length of time since the CDGU was last De-Synchronised , expressed as various levels of warmth (dependent upon the design of the CDGU).
Warmth State	Either cold, warm or hot, as defined under the timeframes since last De-Synchronisations for Cold Start , Warm Start or Hot Start respectively.
Warning	A warning as provided for in OC10.7.1.1
Wind Farm Control System	The control system at the Controllable WFPS which provides for Active Power Control , Frequency Response , ramp rate control and other WTG control features.
Wind Turbine Generator(s) (WTG)	A Generation Unit(s) generating electricity from wind.
Within-Day Test	An Operational Test with a total duration of less than 6 hours in any Trading Day , where the Active Energy produced during the total duration of the test is less than:

	<p>(i) 3 times the Active Energy which would be produced by the Test Proposer's Plant during 1 hour of operation at the Plant's Registered Capacity; and</p> <p>(ii) 500 MWh.</p>
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