

GLOSSARY AND DEFINITIONS for GB Grid Code (G & D)

E+W term	E+W definition	GB term	Changed definition / Comments
<u>Act</u>	The Electricity Act 1989 (as amended by the Utilities Act 2000)		The Electricity Act 1989 (as amended by the Utilities Act 2000 and the Electricity (Trading and Transmission) Act [xxxx])
<u>Active Energy</u>	<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 power, measured in units of watt-hours or standard multiples thereof, ie:</p> <p style="text-align: center;">1000 Wh = 1 kWh 1000 kWh = 1 MWh 1000 MWh = 1 GWh 1000 GWh = 1 TWh.</p>		
<u>Active Power</u>	<p>The product of voltage and the in-phase component of alternating current measured in units of watts and standard multiples thereof, ie:</p> <p style="text-align: center;">1000 Watts = 1 kW 1000 kW = 1 MW 1000 MW = 1 GW 1000 GW = 1 TW.</p>		
<u>Affiliate</u>	In relation to any person, any holding company or subsidiary of such person or any subsidiary of a holding company of such person, in each case within the meaning of Section 736, 736A and 736B of the Companies Act 1985 as substituted by section 144 of the Companies Act 1989 and, if that latter section is not in force at the Transfer Date , as if such section were in force at such date.		

<u>Ancillary Service</u>	A System Ancillary Service and/or a Commercial Ancillary Service , as the case may be.		
<u>Ancillary Services Agreement</u>	An agreement between a User and NGC for the payment by NGC to that User in respect of the provision by such User of Ancillary Services .		An agreement between a User and NGC the System Operator for the payment by NGC the System Operator to that User in respect of the provision by such User of Ancillary Services .
<u>Annual Average Cold Spell Conditions or ACS Conditions</u>	A particular combination of weather elements which gives rise to a level of peak Demand within an NGC Financial Year which has a 50% chance of being exceeded as a result of weather variation alone.		A particular combination of weather elements which gives rise to a level of peak Demand within an NGC Financial Year which has a 50% chance of being exceeded as a result of weather variation alone.
<u>Apparent Power</u>	The product of voltage and of alternating current measured in units of voltamperes and standard multiples thereof, ie: 1000 VA = 1 kVA 1000 kVA = 1 MVA.		
<u>Apparatus</u>	Other than in OC8 , means all equipment in which electrical conductors are used, supported or of which they may form a part. In OC8 it means High Voltage electrical circuits forming part of a System on which Safety Precautions may be applied to allow work and/or testing to be carried out on a System .		
<u>Area Manager</u>	A manager appointed by NGC whose management unit is a geographical area embracing part of the NGC Transmission System .		For consideration by GCEG.
<u>Authorised Electricity Operator</u>	Any person (other than NGC in its capacity as operator of the NGC Transmission System) who is authorised under the Act to generate, transmit or supply electricity.		Any person (other than NGC the System Operator in its capacity as operator of the NGC Transmission System) who is authorised under the Act to generate, transmit <u>participate in the transmission of, distribute</u> or supply electricity.

<u>Automatic Voltage Regulator or AVR</u>	A continuously acting automatic excitation system to control a Generating Unit terminal voltage.		
<u>Authority for Access</u>	An authority which grants the holder the right to unaccompanied access to sites containing exposed HV conductors.		
<u>Authority, The</u>	The Authority established by section 1 (1) of the Utilities Act 2000		
<u>Auxiliaries</u>	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.		
<u>Auxiliary Diesel Engine</u>	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.		
<u>Auxiliary Gas Turbine</u>	A Gas Turbine 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.		
<u>Average Conditions</u>	That combination of weather elements within a period of time which is the average of the observed values of those weather elements during equivalent periods over many years (sometimes referred to as normal weather).		
<u>Back-Up Protection</u>	Protection equipment or system which is intended to operate when a system fault is not cleared in due time because of failure or inability of the Main Protection to operate or in case of failure to operate of a circuit-breaker other than the associated circuit breaker.		
<u>Balancing and Settlement Code or BSC</u>	The code of that title as from time to time amended.		

<u>Balancing Code or BC</u>	That portion of the Grid Code which specifies the Balancing Mechanism process.		
<u>Balancing Mechanism</u>	Has the meaning set out in the Transmission Licence		
<u>Balancing Mechanism Reporting Agent or BMRA</u>	Has the meaning set out in the BSC .		
<u>Balancing Mechanism Reporting Service or BMRS</u>	Has the meaning set out in the BSC .		
<u>Balancing Principles Statement</u>	A statement prepared by NGC in accordance with Special Condition AA4 of the Transmission Licence .		A statement prepared by NGC <u>the System Operator</u> in accordance with Special Condition AA4[xxx] of the Transmission Licence .
<u>Bid-Offer Acceptance</u>	a) A communication issued by NGC in accordance with BC2.7 ; or b) an Emergency Instruction to the extent provided for in BC2.9.2.3.		b) A communication issued by NGC <u>the System Operator</u> in accordance with BC2.7 ; or b) an Emergency Instruction to the extent provided for in BC2.9.2.3.
<u>Bid-Offer Data</u>	Has the meaning set out in the BSC .		
<u>Bilateral Agreement</u>	Has the meaning set out in the Transmission Licence		
<u>Black Start</u>	The procedure necessary for a recovery from a Total Shutdown or Partial Shutdown .		
<u>Black Start Capability</u>	An ability in respect of a Black Start Station , for at least one of its Gensets to Start-Up from Shutdown and to energise a part of the System and be Synchronised to the System upon instruction from, within two hours, without an external electrical power supply.		An ability in respect of a Black Start Station , for at least one of its Gensets to Start-Up from Shutdown and to energise a part of the System and be Synchronised to the System upon instruction from NGC <u>the System Operator</u> , within two hours, without an external electrical power supply.

<u>Black Start Stations</u>	Power Stations which are registered, pursuant to the Bilateral Agreement with a User , as having a Black Start Capability .		
<u>Black Start Test</u>	A Black Start Test carried out by a Generator with a Black Start Station , on the instructions of NGC , in order to demonstrate that a Black Start Station has a Black Start Capability .		A Black Start Test carried out by a Generator with a Black Start Station , on the instructions of NGC the System Operator , in order to demonstrate that a Black Start Station has a Black Start Capability .
<u>BM Participant</u>	A person who is responsible for and controls one or more BM Units . For the avoidance of doubt, it does not imply that they must be active in the Balancing Mechanism .		
<u>BM Unit</u>	Has the meaning set out in the BSC , except that for the purposes of the Grid Code the reference to “Party” in the BSC shall be a reference to User .		
<u>BM Unit Data</u>	The collection of parameters associated with each BM Unit , as described in Appendix 1 of BC1 .		
<u>Boiler Time Constant</u>	Determined at Registered Capacity , the boiler time constant will be construed in accordance with the principles of the IEEE Committee Report "Dynamic Models for Steam and Hydro Turbines in Power System Studies" published in 1973 which apply to such phrase.		
<u>British Standards or BS</u>	Those standards and specifications approved by the British Standards Institution.		
<u>BSCCo</u>	Has the meaning set out in the BSC .		
<u>BSC Panel</u>	Has meaning set out for “Panel” in the BSC .		
<u>BS Station Test</u>	A Black Start Test carried out by a Generator with a Black Start Station while the Black Start Station is disconnected from all external alternating current electrical supplies.		

<u>BS Unit Test</u>	A Black Start Test carried out on a Generating Unit or a CCGT Unit , as the case may be, at a Black Start Station while the Black Start Station remains connected to an external alternating current electrical supply.		
<u>Business Day</u>	Any week day (other than a Saturday) on which banks are open for domestic business in the City of London.		
<u>Cancellation of NGC System Warning</u>	The notification given to Users when a NGC System Warning is cancelled.	<u>Cancellation of NGC Transmission System Warning</u>	The notification given to Users when a NGC Transmission System Warning is cancelled.
<u>Caution Notice</u>	A notice conveying a warning against interference.		
<u>CENELEC</u>	European Committee for Electrotechnical Standardisation.		
<u>CCGT Module Matrix</u>	The matrix described in Appendix 1 to BC1 under the heading CCGT Module Matrix .		
<u>CCGT Module Planning Matrix</u>	A matrix in the form set out in Appendix 3 of OC2 showing the combination of CCGT Units within a CCGT Module which would be running in relation to any given MW output.		
<u>Combined Cycle Gas Turbine Module or CCGT Module</u>	A collection of Generating Units (registered as a CCGT Module under the PC) comprising one or more Gas Turbine Units (or other gas based engine units) and one or more Steam Units where, in normal operation, the waste heat from the Gas Turbines is passed to the water/steam system of the associated Steam Unit or Steam Units and where the component Units within the CCGT Module 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 Module .		

<u>Combined Cycle Gas Turbine Unit or CCGT Unit</u>	A Generating Unit within a CCGT Module .		
<u>Commercial Ancillary Services</u>	Ancillary Services , other than System Ancillary Services , utilised by NGC in operating the Total System if a User (or other person) has agreed to provide them under an Ancillary Services Agreement or under a Bilateral Agreement with payment being dealt with under an Ancillary Services Agreement or in the case of Externally Interconnected System Operators or Interconnector Users , under any other agreement (and in the case of Externally Interconnected System Operators and Interconnector Users includes ancillary services equivalent to or similar to System Ancillary Services).		Ancillary Services , other than System Ancillary Services , utilised by NGCthe System Operator in operating the Total System if a User (or other person) has agreed to provide them under an Ancillary Services Agreement or under a Bilateral Agreement with payment being dealt with under an Ancillary Services Agreement or in the case of Externally Interconnected System Operators or Interconnector Users , under any other agreement (and in the case of Externally Interconnected System Operators and Interconnector Users includes ancillary services equivalent to or similar to System Ancillary Services).
<u>Committed Project Planning Data</u>	Data relating to a User Development once the offer for a CUSC Contract is accepted.		
<u>Completion Date</u>	Has the meaning set out in the Bilateral Agreement with each User to that term or in the absence of that term to such other term reflecting the date when a User is expected to connect to or start using the NGC Transmission System .		Has the meaning set out in the Bilateral Agreement with each User to that term or in the absence of that term to such other term reflecting the date when a User is expected to connect to or start using the NGC Transmission System .
<u>Complex</u>	A Connection Site together with the associated Power Station and/or Network Operator substation and/or associated Plant and/or Apparatus , as appropriate.		
<u>Connection Conditions or CC</u>	That portion of the Grid Code which is identified as the Connection Conditions .		

<u>Connected Planning Data</u>	Data which replaces data containing estimated values assumed for planning purposes by validated actual values and updated estimates for the future and by updated forecasts for Forecast Data items such as Demand .		
<u>Connection Point</u>	A Grid Supply Point or Grid Entry Point , as the case may be.		
<u>Connection Site</u>	An NGC Site or User Site , as the case may be.		A NGC Transmission Site or User Site , as the case may be.
<u>Construction Agreement</u>	Has the meaning set out in the Transmission Licence		
<u>Contingency Reserve</u>	The margin of generation over forecast Demand which is required in the period from 24 hours ahead down to real time to cover against uncertainties in Large Power Station availability and against both weather forecast and Demand forecast errors.		
<u>Control Calls</u>	A telephone call whose destination and/or origin is a key on the control desk telephone keyboard at an NGC Control Centre and which has the right to exercise priority over (ie. disconnect) a call of a lower status.		A telephone call whose destination and/or origin is a key on the control desk telephone keyboard at a NGC System Operator Control Centre and which has the right to exercise priority over (ie. disconnect) a call of a lower status.
<u>Control Centre</u>	A location used for the purpose of control and operation of the NGC Transmission System or a User System other than a Generator's System or an External System .		A location used for the purpose of control and operation of the NGC Transmission System or a User System other than a Generator's System or an External System .
<u>Control Person</u>	The term used as an alternative to " Safety Co-ordinator " on the Site Responsibility Schedule only.		
<u>Control Phase</u>	The Control Phase follows on from the Programming Phase and covers the period down to real time.		

<u>Control Point</u>	<p>The point from which:-</p> <p>a) A Non-Embedded Customer's Plant and Apparatus is controlled; or</p> <p>b) A BM Unit, in England or Wales at a Large Power Station or at a Medium Power Station or with a Demand Capacity with a magnitude of 50MW or more, is physically controlled by a BM Participant; or</p> <p>c) In the case of any other BM Unit, data submission is co-ordinated for a BM Participant and instructions are received from NGC,</p> <p>as the case may be. For a Generator this will normally be at a Power Station. In the case of a BM Unit of an Interconnector User, the Control Point will be the Control Centre of the relevant Externally Interconnected System Operator.</p>		<p>The point from which:-</p> <p>a) A Non-Embedded Customer's Plant and Apparatus is controlled; or</p> <p>b) A BM Unit, in England or Wales at a Large Power Station or at a Medium Power Station or with a Demand Capacity with a magnitude of 50MW or more <u>in England and Wales or 5MW or more in Scotland</u>, is physically controlled by a BM Participant; or</p> <p>c) In the case of any other BM Unit, data submission is co-ordinated for a BM Participant and instructions are received from NGC <u>the System Operator</u>,</p> <p>as the case may be. For a Generator this will normally be at a Power Station. In the case of a BM Unit of an Interconnector User, the Control Point will be the Control Centre of the relevant Externally Interconnected System Operator.</p>
<u>Control Telephony</u>	<p>The method by which a User's Responsible Engineer/Operator and NGC Control Engineer(s) speak to one another for the purposes of control of the Total System in both normal and emergency operating conditions.</p>		<p>The method by which a User's Responsible Engineer/Operator and NGC <u>the System Operator</u> Control Engineer(s) speak to one another for the purposes of control of the Total System in both normal and emergency operating conditions.</p>
<u>CUSC</u>	<p>Has the meaning set out in the Transmission Licence</p>		
<u>CUSC Contract</u>	<p>One or more of the following agreements as envisaged in Supplementary Standard Condition C7F of the Transmission Licence:</p> <p>(a) the CUSC Framework Agreement;</p> <p>(b) a Bilateral Agreement;</p> <p>(c) a Construction Agreement</p> <p>or a variation to an existing Bilateral Agreement and/or Construction Agreement;</p>		<p>One or more of the following agreements as envisaged in Supplementary Standard Condition C7F <u>XXXX</u> of the Transmission Licence:</p> <p>(a) the CUSC Framework Agreement;</p> <p>(b) a Bilateral Agreement;</p> <p>(c) a Construction Agreement</p> <p>or a variation to an existing Bilateral Agreement and/or Construction Agreement;</p>

<u>CUSC Framework Agreement</u>	Has the meaning set out in the Transmission Licence		
<u>Customer</u>	A person to whom electrical power is provided (whether or not he is the same person as the person who provides the electrical power).		
<u>Customer Demand Management</u>	Reducing the supply of electricity to a Customer or disconnecting a Customer in a manner agreed for commercial purposes between a Supplier and its Customer .		
<u>Customer Generating Plant</u>	A Power Station or Generating Unit of a Customer to the extent that it operates the same exclusively to supply all or part of its own electricity requirements, and does not export electrical power to any part of the Total System .		
<u>Data Registration Code or DRC</u>	That portion of the Grid Code which is identified as the Data Registration Code .		
<u>Data Validation, Consistency and Defaulting Rules</u>	The rules relating to validity and consistency of data, and default data to be applied, in relation to data submitted under the Balancing Codes , to be applied by NGC under the Grid Code as set out in the document “NETA Data Validation, Consistency and Defaulting Rules” - Issue 5, dated 18 th December 2000. The document is available upon request from NGC .		The rules relating to validity and consistency of data, and default data to be applied, in relation to data submitted under the Balancing Codes , to be applied by NGC <u>the System Operator</u> under the Grid Code as set out in the document “NETA Data Validation, Consistency and Defaulting Rules” - Issue 5, dated 18 th December 2000. The document is available upon request from NGC <u>the System Operator</u> .
<u>De-Load</u>	The condition in which a Genset has reduced or is not delivering electrical power to the System to which it is Synchronised .		
<u>Demand</u>	The demand of MW and Mvar of electricity (i.e. both Active and Reactive Power), unless otherwise stated.		
<u>Demand Capacity</u>	Has the meaning as set out in the BSC .		

<u>Demand Control</u>	Any or all of the following methods of achieving a Demand reduction: (a) Customer voltage reduction initiated by Network Operators (other than following an instruction from NGC); (b) Customer Demand reduction by Disconnection initiated by Network Operators (other than following an instruction from NGC); (c) Demand reduction instructed by NGC ; (d) automatic low Frequency Demand Disconnection ; (e) emergency manual Demand Disconnection .		Any or all of the following methods of achieving a Demand reduction: (a) Customer voltage reduction initiated by Network Operators (other than following an instruction from NGC <u>the System Operator</u>); (b) Customer Demand reduction by Disconnection initiated by Network Operators (other than following an instruction from NGC <u>the System Operator</u>); (c) Demand reduction instructed by NGC <u>the System Operator</u> ; (d) automatic low Frequency Demand Disconnection ; (e) emergency manual Demand Disconnection .
<u>Designed Minimum Operating Level</u>	The output (in whole MW) below which a Genset has no High Frequency Response capability.		
<u>De-Synchronise</u>	a) The act of taking a Generating Unit off a System to which it has been Synchronised , by opening any connecting circuit breaker; or b) The act of ceasing to consume electricity at an importing BM Unit ; and the term " De-Synchronising " shall be construed accordingly.		
<u>De-synchronised Island(s)</u>	Has the meaning set out in OC9.5.1(a)		
<u>Detailed Planning Data</u>	Detailed additional data which NGC requires under the PC in support of Standard Planning Data . Generally it is first supplied once a Bilateral Agreement is entered into.		Detailed additional data which NGC <u>the System Operator</u> requires under the PC in support of Standard Planning Data . Generally it is first supplied once a Bilateral Agreement is entered into.

<u>Discrimination</u>	The quality where a relay or protective system is enabled to pick out and cause to be disconnected only the faulty Apparatus .		
<u>Disconnection</u>	The physical separation of Users (or Customers) from the NGC Transmission System or a User System as the case may be.		The physical separation of Users (or Customers) from the NGC-Transmission System or a User System as the case may be.
<u>Disputes Resolution Procedure</u>	The procedure described in the CUSC relating to disputes resolution.		
<u>Distribution Code</u>	The distribution code required to be drawn up by each Electricity Distribution Licence holder and approved by the Authority , as from time to time revised with the approval of the Authority .		
<u>Dynamic Parameters</u>	Those parameters listed in Appendix 1 to BC1 under the heading BM Unit Data – Dynamic Parameters .		
<u>Earth Fault Factor</u>	At a selected location of a three-phase System (generally the point of installation of equipment) and for a given System configuration, the ratio of the highest root mean square phase-to-earth power Frequency voltage on a sound phase during a fault to earth (affecting one or more phases at any point) to the root mean square phase-to-earth power Frequency voltage which would be obtained at the selected location without the fault.		

<u>Earthing</u>	A way of providing a connection between conductors and earth by an Earthing Device which is either: (a) Immobilised and Locked in the earthing position. Where the Earthing Device is Locked with a Safety Key , the Safety Key must be secured in a Key Safe and the Key Safe Key must be retained in safe custody: or (b) maintained and/or secured in position by such other method which must be in accordance with the Local Safety Instructions of NGC or that User , as the case may be.		A way of providing a connection between conductors and earth by an Earthing Device which is either: (a) Immobilised and Locked in the earthing position. Where the Earthing Device is Locked with a Safety Key , the Safety Key must be secured in a Key Safe and the Key Safe Key must be retained in safe custody: or (b) maintained and/or secured in position by such other method which must be in accordance with the Local Safety Instructions of NGC <u>the System Operator, the Relevant Transmission Licensee</u> or that User , as the case may be.
<u>Earthing Device</u>	A means of providing a connection between a conductor and earth being of adequate strength and capability.		
<u>Electricity Council</u>	That body set up under the Electricity Act, 1957.		
<u>Electricity Distribution Licence</u>	The licence granted pursuant to Section 6(1) (c) of the Act.		
<u>Electricity Supply Industry Arbitration Association</u>	The unincorporated members' club of that name formed inter alia to promote the efficient and economic operation of the procedure for the resolution of disputes within the electricity supply industry by means of arbitration or otherwise in accordance with its arbitration rules.		
<u>Electricity Supply Licence</u>	The licence granted pursuant to Section 6(1) (d) of the Act.		
<u>Electromagnetic Compatibility Level</u>	Has the meaning set out in Engineering Recommendation G5/4 .		

<u>Embedded</u>	Having a direct connection to a User System or the System of any other User to which Customers and/or Power Stations are connected, such connection being either a direct connection or a connection via a busbar of another User or of NGC (but with no other connection to the NGC Transmission System).		Having a direct connection to a User System or the System of any other User to which Customers and/or Power Stations are connected, such connection being either a direct connection or a connection via a busbar of another User or of NGCa Transmission Licensee (but with no other connection to the NGC–Transmission System).
<u>Emergency Instruction</u>	An instruction issued by NGC in emergency circumstances, pursuant to BC2.9, to the Control Point of a User . In the case of such instructions applicable to a BM Unit , it may require an action or response which is outside the Dynamic Parameters, QPN or Other Relevant Data , and may include an instruction to trip a Genset .		An instruction issued by NGCthe System Operator in emergency circumstances, pursuant to BC2.9, to the Control Point of a User . In the case of such instructions applicable to a BM Unit , it may require an action or response which is outside the Dynamic Parameters, QPN or Other Relevant Data , and may include an instruction to trip a Genset .
<u>Engineering Recommendations</u>	The documents referred to as such and issued by the Electricity Association or the former Electricity Council.		
<u>Estimated Registered Data</u>	Those items of Standard Planning Data and Detailed 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 NGC Financial Years will be an estimate of what is expected.		Those items of Standard Planning Data and Detailed 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 NGC–Financial Years will be an estimate of what is expected.
<u>European Specification</u>	A common technical specification, a British Standard implementing a European standard or a European technical approval. The terms "common technical specification", "European standard" and "European technical approval" shall have the meanings respectively ascribed to them in the Regulations .		

<u>Event</u>	An unscheduled or unplanned (although it may be anticipated) occurrence on, or relating to, a System (including Embedded Power Stations) including, without limiting that general description, faults, incidents and breakdowns and adverse weather conditions being experienced.		
<u>Exciter</u>	The source of the electrical power providing the field current of a synchronous machine.		
<u>Excitation System</u>	The equipment providing the field current of a machine, including all regulating and control elements, as well as field discharge or suppression equipment and protective devices.		
<u>Excitation System No-Load Negative Ceiling Voltage</u>	The minimum value of direct voltage that the Excitation System is able to provide from its terminals when it is not loaded, which may be zero or a negative value.		
<u>Excitation System Nominal Response</u>	Shall have the meaning ascribed to that term in IEC 34-16-1:1991 [equivalent to British Standard BS4999 Section 116.1 : 1992]. The time interval applicable is the first half-second of excitation system voltage response.		
<u>Excitation System On-Load Positive Ceiling Voltage</u>	Shall have the meaning ascribed to the term 'Excitation system on load ceiling voltage' in IEC 34-16-1:1991[equivalent to British Standard BS4999 Section 116.1 : 1992].		
<u>Excitation System No-Load Positive Ceiling Voltage</u>	Shall have the meaning ascribed to the term 'Excitation system no load ceiling voltage' in IEC 34-16-1:1991[equivalent to British Standard BS4999 Section 116.1 : 1992].		

<p><u>Existing AGR Plant</u></p>	<p>The following nuclear advanced gas cooled reactor plant (which was commissioned and connected to the Total System at the Transfer Date):-</p> <p>Dungeness B</p> <p>Hinkley Point B</p> <p>Heysham 1</p> <p>Heysham 2</p> <p>Hartlepool.</p>		<p>The following nuclear advanced gas cooled reactor plant (which was commissioned and connected to the Total System at the Transfer Date):-</p> <p>Dungeness B</p> <p>Hinkley Point B</p> <p>Heysham 1</p> <p>Heysham 2</p> <p>Hartlepool.</p> <p><u>Hunterston</u></p> <p><u>Torness</u></p>
<p><u>Existing AGR Plant Flexibility Limit</u></p>	<p>In respect of each Genset within each Existing AGR Plant which has a safety case enabling it to so operate, 8 (or such lower number which when added to the number of instances of reduction of output as instructed by NGC in relation to operation in Frequency Sensitive Mode totals 8) instances of flexibility in any calendar year (or such lower or greater number as may be agreed by the Nuclear Installations Inspectorate and notified to NGC) for the purpose of assisting in the period of low System NRAPM and/or low Localised NRAPM provided that in relation to each Generating Unit each change in output shall not be required to be to a level where the output of the reactor is less than 80% of the reactor thermal power limit (as notified to NGC and which corresponds to the limit of reactor thermal power as contained in the "Operating Rules" or "Identified Operating Instructions" forming part of the safety case agreed with the Nuclear Installations Inspectorate).</p>		<p>In respect of each Genset within each Existing AGR Plant which has a safety case enabling it to so operate, 8 (or such lower number which when added to the number of instances of reduction of output as instructed by NGC<u>the System Operator</u> in relation to operation in Frequency Sensitive Mode totals 8) instances of flexibility in any calendar year (or such lower or greater number as may be agreed by the Nuclear Installations Inspectorate and notified to NGC<u>the System Operator</u>) for the purpose of assisting in the period of low System NRAPM and/or low Localised NRAPM provided that in relation to each Generating Unit each change in output shall not be required to be to a level where the output of the reactor is less than 80% of the reactor thermal power limit (as notified to NGC<u>the System Operator</u> and which corresponds to the limit of reactor thermal power as contained in the "Operating Rules" or "Identified Operating Instructions" forming part of the safety case agreed with the Nuclear Installations Inspectorate).</p>
<p><u>Existing Gas Cooled Reactor Plant</u></p>	<p>Both Existing Magnox Reactor Plant and Existing AGR Plant.</p>		

<p><u>Existing Magnox Reactor Plant</u></p>	<p>The following nuclear gas cooled reactor plant (which was commissioned and connected to the Total System at the Transfer Date):-</p> <p>Calder Hall Dungeness A Hinkley Point A Oldbury-on-Severn Bradwell Sizewell A Wylfa.</p>		<p>The following nuclear gas cooled reactor plant (which was commissioned and connected to the Total System at the Transfer Date):-</p> <p>Calder Hall Chappelc<u>Gross</u> Dungeness A Hinkley Point A Oldbury-on-Severn Bradwell Sizewell A Wylfa.</p>
<p><u>Export and Import Limits</u></p>	<p>Those parameters listed in Appendix 1 to BC1 under the heading BM Unit Data – Export and Import Limits.</p>		
<p><u>External Interconnection</u></p>	<p>Apparatus for the transmission of electricity to or from the NGC Transmission System or a User System into or out of an External System. For the avoidance of doubt, a single External Interconnection may comprise several circuits operating in parallel.</p>		<p>Apparatus for the transmission of electricity to or from the NGCTransmission System or a User System into or out of an External System. For the avoidance of doubt, a single External Interconnection may comprise several circuits operating in parallel.</p>
<p><u>Externally Interconnected System Operator or EISO</u></p>	<p>A person who operates an External System which is connected to the NGC Transmission System or a User System by an External Interconnection.</p>		<p>A person who operates an External System which is connected to the NGCTransmission System or a User System by an External Interconnection.</p>
<p><u>External System</u></p>	<p>In relation to an Externally Interconnected System Operator means the transmission or distribution system which it owns or operates which is located outside England and Wales and any Apparatus or Plant which connects that system to the External Interconnection and which is owned or operated by such Externally Interconnected System Operator.</p>		<p>In relation to an Externally Interconnected System Operator means the transmission or distribution system which it owns or operates which is located outside England, andWales <u>and Scotland</u> and any Apparatus or Plant which connects that system to the External Interconnection and which is owned or operated by such Externally Interconnected System Operator.</p>

<u>Fault Current Interruption Time</u>	The time interval from fault inception until the end of the break time of the circuit breaker (as declared by the manufacturers).		
<u>Fast Start</u>	A start by a Genset with a Fast Start Capability .		
<u>Fast Start Capability</u>	The ability of a Genset to be Synchronised and Loaded up to full Load within 5 minutes.		
<u>Final Generation Outage Programme</u>	An outage programme as agreed by NGC with each Generator at various stages through the Operational Planning Phase and Programming Phase which does not commit the parties to abide by it, but which at various stages will be used as the basis on which NGC Transmission System Outages will be planned.		An outage programme as agreed by NGCthe System Operator with each Generator at various stages through the Operational Planning Phase and Programming Phase which does not commit the parties to abide by it, but which at various stages will be used as the basis on which NGC-Transmission System Outages will be planned.
<u>Final Physical Notification Data</u>	Has the meaning set out in the BSC .		
<u>Final Report</u>	A report prepared by the Test Proposer at the conclusion of a System Test for submission to NGC (if it did not propose the System Test) and other members of the Test Panel .		A report prepared by the Test Proposer at the conclusion of a System Test for submission to NGCthe System Operator (if it did not propose the System Test) and other members of the Test Panel .
<u>Flicker Severity (Long Term)</u>	A value derived from 12 successive measurements of Flicker Severity (Short Term) (over a two hour period) and a calculation of the cube root of the mean sum of the cubes of 12 individual measurements, as further set out in Engineering Recommendation P28 as current at the Transfer Date .		
<u>Flicker Severity (Short Term)</u>	A measure of the visual severity of flicker derived from the time series output of a flickermeter over a 10 minute period and as such provides an indication of the risk of Customer complaints.		
<u>Forecast Data</u>	Those items of Standard Planning Data and Detailed Planning Data which will always be forecast.		
<u>Frequency</u>	The number of alternating current cycles per second (expressed in Hertz) at which a System is running.		

<u>Frequency Sensitive AGR Unit</u>	Each Generating Unit in an Existing AGR Plant for which the Generator has notified NGC that it has a safety case agreed with the Nuclear Installations Inspectorate enabling it to operate in Frequency Sensitive Mode , to the extent that such unit is within its Frequency Sensitive AGR Unit Limit . Each such Generating Unit shall be treated as if it were operating in accordance with BC3.5.1 provided that it is complying with its Frequency Sensitive AGR Unit Limit .		Each Generating Unit in an Existing AGR Plant for which the Generator has notified NGC <u>the System Operator</u> that it has a safety case agreed with the Nuclear Installations Inspectorate enabling it to operate in Frequency Sensitive Mode , to the extent that such unit is within its Frequency Sensitive AGR Unit Limit . Each such Generating Unit shall be treated as if it were operating in accordance with BC3.5.1 provided that it is complying with its Frequency Sensitive AGR Unit Limit .
<u>Frequency Sensitive AGR Unit Limit</u>	In respect of each Frequency Sensitive AGR Unit , 8 (or such lower number which when added to the number of instances of flexibility for the purposes of assisting in a period of low System or Localised NRAPM totals 8) instances of reduction of output in any calendar year as instructed by NGC in relation to operation in Frequency Sensitive Mode (or such greater number as may be agreed between NGC and the Generator), for the purpose of assisting with Frequency control, provided the level of operation of each Frequency Sensitive AGR Unit in Frequency Sensitive Mode shall not be outside that agreed by the Nuclear Installations Inspectorate in the relevant safety case.		In respect of each Frequency Sensitive AGR Unit , 8 (or such lower number which when added to the number of instances of flexibility for the purposes of assisting in a period of low System or Localised NRAPM totals 8) instances of reduction of output in any calendar year as instructed by NGC <u>the System Operator</u> in relation to operation in Frequency Sensitive Mode (or such greater number as may be agreed between NGC <u>the System Operator</u> and the Generator), for the purpose of assisting with Frequency control, provided the level of operation of each Frequency Sensitive AGR Unit in Frequency Sensitive Mode shall not be outside that agreed by the Nuclear Installations Inspectorate in the relevant safety case.
<u>Frequency Sensitive Mode</u>	A Genset operating mode which will result in Active Power output changing, in response to a change in System Frequency , in a direction which assists in the recovery to Target Frequency , by operating so as to provide Primary Response and/or Secondary Response and/or High Frequency Response .		
<u>Fuel Security Code</u>	The document of that title designated as such by the Secretary of State , as from time to time amended.		
<u>Gas Turbine Unit</u>	A Generating Unit driven by a gas turbine (for instance by an aero-engine).		

<u>Gas Zone Diagram</u>	A single line diagram showing boundaries of, and interfaces between, gas-insulated HV Apparatus modules which comprise part, or the whole, of a substation at a Connection Site , together with the associated stop valves and gas monitors required for the safe operation of the NGC Transmission System or the User System , as the case may be.		A single line diagram showing boundaries of, and interfaces between, gas-insulated HV Apparatus modules which comprise part, or the whole, of a substation at a Connection Site , together with the associated stop valves and gas monitors required for the safe operation of the NGC Transmission System or the User System , as the case may be.
<u>Gate Closure</u>	Has the meaning set out in the BSC .		
<u>General Conditions or GC</u>	That portion of the Grid Code which is identified as the General Conditions .		
<u>Generating Plant Demand Margin</u>	The difference between Output Usable and forecast Demand .		
<u>Generating Unit</u>	Unless otherwise provided in the Grid Code , any Apparatus which produces electricity, including, for the avoidance of doubt, a CCGT Unit .		
<u>Generation Capacity</u>	Has the meaning set out in the BSC .		
<u>Generation Planning Parameters</u>	Those parameters listed in Appendix 2 of OC2 .		
<u>Generator</u>	A person who generates electricity under licence or exemption under the Act acting in its capacity as a generator in England and Wales.		A person who generates electricity under licence or exemption under the Act acting in its capacity as a generator in England, and Wales <u>or Scotland</u> .
<u>Generator Performance Chart</u>	A diagram which shows the MW and Mvar capability limits within which a Generating Unit will be expected to operate under steady state conditions.		
<u>Genset</u>	A Generating Unit or CCGT Module at a Large Power Station .		A Generating Unit or CCGT Module at a Large Power Station <u>or any Generating Unit or CCGT Module which is directly connected to the Transmission System</u> .

<u>Good Industry Practice</u>	The exercise of that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances.		
<u>Governor Deadband</u>	The total magnitude of the change in steady state speed (expressed as a range of Hz ($\pm x$ Hz) where "x" is a numerical value) within which there is no resultant change in the position of the governing valves of the speed/load Governing System.		
<u>Grid Code Review Panel or Panel</u>	The panel with the functions set out in GC.4.		
<u>Grid Entry Point</u>	A point at which a Generating Unit or a CCGT Module or a CCGT Unit , as the case may be, which is directly connected to the NGC Transmission System connects to the NGC Transmission System .		A point at which a Generating Unit or a CCGT Module or a CCGT Unit , as the case may be, which is directly connected to the NGC Transmission System connects to the NGC Transmission System .
<u>Grid Supply Point</u>	A point of supply from the NGC Transmission System to Network Operators or Non-Embedded Customers .		A point of supply from the NGC Transmission System to Network Operators or Non-Embedded Customers .

<u>High Frequency Response</u>	An automatic reduction in Active Power output in response to an increase in System Frequency above the Target Frequency (or such other level of Frequency as may have been agreed in an Ancillary Services Agreement). This reduction in Active Power output must be in accordance with the provisions of the relevant Ancillary Services Agreement which will provide that it will be released increasingly with time over the period 0 to 10 seconds from the time of the Frequency increase on the basis set out in the Ancillary Services Agreement and fully achieved within 10 seconds of the time of the start of the Frequency increase and it must be sustained at no lesser reduction thereafter. The interpretation of the High Frequency Response to a + 0.5 Hz frequency change is shown diagrammatically in Figure CC.A.3.3.		
<u>High Voltage or HV</u>	A voltage exceeding 650 volts.		
<u>HV Generator Connections</u>	Apparatus connected at the same voltage as that of the NGC Transmission System , including Users' circuits, the higher voltage windings of Users' transformers and associated connection Apparatus .		Apparatus connected at the same voltage as that of the NGC-Transmission System , including Users' circuits, the higher voltage windings of Users' transformers and associated connection Apparatus
<u>HP Turbine Power Fraction</u>	Ratio of steady state mechanical power delivered by the HP turbine to the total steady state mechanical power delivered by the total steam turbine at Registered Capacity .		
<u>IEC</u>	International Electrotechnical Commission.		
<u>IEC Standard</u>	A standard approved by the International Electrotechnical Commission.		
<u>Implementing Safety Co-ordinator</u>	The Safety Co-ordinator implementing Safety Precautions .		

<u>Incident Centre</u>	A centre established by NGC or a User as the focal point in NGC or in that User , as the case may be, for the communication and dissemination of information between the senior management representatives of NGC , or of that User , as the case may be, and the relevant other parties during a Joint System Incident in order to avoid overloading NGC's , or that User's , as the case may be, existing operational/control arrangements.		A centre established by NGC <u>the System Operator</u> or a User as the focal point in NGC <u>the System Operator</u> or in that User , as the case may be, for the communication and dissemination of information between the senior management representatives of NGC <u>the System Operator</u> , or of that User , as the case may be, and the relevant other parties during a Joint System Incident in order to avoid overloading NGC <u>the System Operator's</u> , or that User's , as the case may be, existing operational/control arrangements.
<u>Indicated Constraint Boundary Margin</u>	The difference between a constraint boundary transfer limit and the difference between the sum of BM Unit Maximum Export Limits and the forecast of local Demand within the constraint boundary.		
<u>Indicated Imbalance</u>	The difference between the sum of Physical Notifications for BM Units comprising Generating Units or CCGT Modules and the forecast of Demand for the whole or any part of the System .		
<u>Indicated Margin</u>	The difference between the sum of BM Unit Maximum Export Limits submitted and the forecast of Demand for the whole or any part of the System		
<u>Instructor Facilities</u>	A device or system which gives certain NGC Control Centre instructions with an audible or visible alarm, and incorporates the means to return message acknowledgements to the NGC Control Centre		A device or system which gives certain NGC <u>the System Operator</u> Control Centre instructions with an audible or visible alarm, and incorporates the means to return message acknowledgements to the NGC <u>the System Operator</u> Control Centre
<u>Integral Equipment Test</u> or IET	A test on equipment, associated with Plant and/or Apparatus , which takes place when that Plant and/or Apparatus forms part of a Synchronised System and which, in the reasonable judgement of the person wishing to perform the test, may cause an Operational Effect .		

<u>Interconnection Agreement</u>	An agreement made between NGC and an Externally Interconnected System Operator and/or an Interconnector User relating to an External Interconnection and/or an agreement under which an Interconnector User can use an External Interconnection .		An agreement made between NGC the System Operator and an Externally Interconnected System Operator and/or an Interconnector User relating to an External Interconnection and/or an agreement under which an Interconnector User can use an External Interconnection .
<u>Interconnector User</u>	Has the meaning set out in the BSC .		
<u>Interface Agreement</u>	An agreement between a User and NGC containing provisions for dealing with the consequences of a User owning or operating Plant or Apparatus which is sited on another User's land and/or for the sharing of facilities and/or the provision of services at or near a Connection Site .		An agreement between a User and NGC <u>under the CUSC and the STC</u> containing provisions for dealing with the consequences of a User owning or operating Plant or Apparatus which is sited on another User's land and/or for the sharing of facilities and/or the provision of services at or near a Connection Site .
<u>Intertripping</u>	(a) The tripping of circuit-breaker(s) by commands initiated from Protection at a remote location independent of the state of the local Protection ; or (b) Operational Intertripping .		
<u>Intertrip Apparatus</u>	Apparatus which performs Intertripping .		
<u>IP Turbine Power Fraction</u>	Ratio of steady state mechanical power delivered by the IP turbine to the total steady state mechanical power delivered by the total steam turbine at Registered Capacity .		
<u>Isolating Device</u>	A device for achieving Isolation .		

<p><u>Isolation</u></p>	<p>The disconnection of HV Apparatus (as defined in OC8.1.4.2) from the remainder of the System in which that HV Apparatus is situated by either of the following:</p> <p>(a) an Isolating Device maintained in an isolating position. The isolating position must either be:</p> <ul style="list-style-type: none"> (i) maintained by immobilising and Locking the Isolating Device in the isolating position and affixing a Caution Notice to it. Where the Isolating Device is Locked with a Safety Key, the Safety Key must be secured in a Key Safe and the Key Safe Key must be retained in safe custody; or (ii) maintained and/or secured by such other method which must be in accordance with the Local Safety Instructions of NGC or the User, as the case may be; or <p>(b) an adequate physical separation which must be in accordance with and maintained by the method set out in the Local Safety Instructions of NGC or the User, as the case may be.</p>		<p>The disconnection of HV Apparatus (as defined in OC8.1.4.2) from the remainder of the System in which that HV Apparatus is situated by either of the following:</p> <p>(a) an Isolating Device maintained in an isolating position. The isolating position must either be:</p> <ul style="list-style-type: none"> (i) maintained by immobilising and Locking the Isolating Device in the isolating position and affixing a Caution Notice to it. Where the Isolating Device is Locked with a Safety Key, the Safety Key must be secured in a Key Safe and the Key Safe Key must be retained in safe custody; or (ii) maintained and/or secured by such other method which must be in accordance with the Local Safety Instructions of NGC <u>the System Operator, the Relevant Transmission Licensee</u> or the User, as the case may be; or <p>(b) an adequate physical separation which must be in accordance with and maintained by the method set out in the Local Safety Instructions of NGC <u>the System Operator, the Relevant Transmission Licensee</u> or the User, as the case may be.</p>
<p><u>Joint BM Unit Data</u></p>	<p>Has the meaning set out in the BSC.</p>		

<u>Joint System Incident</u>	An Event wherever occurring (other than on an Embedded Medium Power Station or an Embedded Small Power Station) which, in the opinion of NGC or a User , has or may have a serious and/or widespread effect, in the case of an Event on a User(s) System(s) (other than on an Embedded Medium Power Station or Embedded Small Power Station), on the NGC Transmission System , and in the case of an Event on the NGC Transmission System , on a User(s) System(s) (other than on an Embedded Medium Power Station or Embedded Small Power Station).		An Event wherever occurring (other than on an Embedded Medium Power Station or an Embedded Small Power Station) which, in the opinion of NGC the System Operator or a User , has or may have a serious and/or widespread effect, in the case of an Event on a User(s) System(s) (other than on an Embedded Medium Power Station or Embedded Small Power Station), on the NGC Transmission System , and in the case of an Event on the NGC Transmission System , on a User(s) System(s) (other than on an Embedded Medium Power Station or Embedded Small Power Station).
<u>Key Safe</u>	A device for the secure retention of keys.		
<u>Key Safe Key</u>	A key unique at a Location capable of operating a lock, other than a control lock, on a Key Safe .		
<u>Large Power Station</u>	A Power Station with a Registered Capacity of 100MW or more.		A Power Station in England and Wales with a Registered Capacity of 100MW or more; <u>or a Power Station in SPT's area with a Registered Capacity of 30MW or more; or a Power Station in SHETL's area with a Registered Capacity of 5MW or more.</u>
<u>Licence</u>	Any licence granted to NGC or a User , under Section 6 of the Act .		Any licence granted <u>to the System Operator or a User</u> to NGC or a User under Section 6 of the Act .
<u>Licence Standards</u>	Those standards set out or referred to in Special Condition AA2 of the Transmission Licence .		Those standards set out or referred to in Special Condition AA2 XXXX of the Transmission Licence .
<u>Limited Frequency Sensitive Mode</u>	A mode whereby the operation of the Genset is Frequency insensitive except when the System Frequency exceeds 50.4Hz, from which point Limited High Frequency Response must be provided.		
<u>Limited High Frequency Response</u>	A response of a Genset to an increase in System Frequency above 50.4Hz leading to a reduction in Active Power in accordance with the provisions of BC3.7.2.		
<u>Load</u>	The Active, Reactive or Apparent Power , as the context requires, generated, transmitted or distributed.		

<u>Loaded</u>	Supplying electrical power to the System .		
<u>Load Factor</u>	The ratio of the actual output of a Generating Unit to the possible maximum output of that Generating Unit .		
<u>Local Joint Restoration Plan</u>	A plan produced under OC9.4.7.11 detailing the agreed method and procedure by which a Genset at a Black Start Station (possibly with other Gensets at that Black Start Station) will energise part of the Total System and meet complementary blocks of local Demand so as to form a Power Island .		
<u>Local Safety Instructions</u>	Instructions on each User Site and NGC Site , approved by the relevant NGC or User's manager, setting down the methods of achieving the objectives of NGC's or the User's Safety Rules , as the case may be, to ensure the safety of personnel carrying out work or testing on Plant and/or Apparatus on which his Safety Rules apply and, in the case of a User , any other document(s) on a User Site which contains rules with regard to maintaining or securing the isolating position of an Isolating Device , or maintaining a physical separation or maintaining or securing the position of an Earthing Device .		Under further consideration.
<u>Localised Negative Reserve Active Power Margin or Localised NRAPM</u>	That margin of Active Power sufficient to allow transfers to and from a System Constraint Group (as the case may be) to be contained within such reasonable limit as NGC may determine.		That margin of Active Power sufficient to allow transfers to and from a System Constraint Group (as the case may be) to be contained within such reasonable limit as NGC the System Operator may determine.
<u>Location</u>	Any place at which Safety Precautions are to be applied.		
<u>Locked</u>	A condition of HV Apparatus that cannot be altered without the operation of a locking device.		

<u>Locking</u>	The application of a locking device which enables HV Apparatus to be Locked .		
<u>Low Frequency Relay</u>	Has the same meaning as Under Frequency Relay .		
<u>Low Voltage or LV</u>	A voltage not exceeding 250 volts.		
<u>Main Protection</u>	Protection equipment or system expected to have priority in initiating either a fault clearance or an action to terminate an abnormal condition in a power system.		
<u>Material Effect</u>	An effect causing a User or NGC , as the case may be, to effect any works or to alter the manner of operation of its Plant and/or Apparatus at the Connection Site (which term shall, in this definition and in the definition of " Modification " only, have the meaning ascribed thereto in the CUSC) or the site of connection which in either case involves that User or NGC , as the case may be, in expenditure of more than £10,000.		An effect causing a User or NGC <u>the System Operator</u> , as the case may be, to effect any works or to alter the manner of operation of its Plant and/or Apparatus at the Connection Site (which term shall, in this definition and in the definition of " Modification " only, have the meaning ascribed thereto in the CUSC) or the site of connection which in either case involves that User or NGC <u>the System Operator</u> , as the case may be, in expenditure of more than £10,000.
<u>Medium Power Station</u>	A Power Station with a Registered Capacity of 50MW or more, but less than 100MW.		A Power Station in England and Wales with a Registered Capacity of 50MW or more, but less than 100MW; <u>or a Power Station in SPT's area with a Registered Capacity of 5MW or more, but less than 30MW.</u>
<u>Medium Voltage or MV</u>	A voltage exceeding 250 volts but not exceeding 650 volts.		
<u>Mills</u>	Milling plant which supplies pulverised fuel to the boiler of a coal fired Power Station .		
<u>Minimum Generation</u>	The minimum output (in whole MW) which a Genset can generate under stable operating conditions, as registered with NGC under the PC (and amended pursuant to the PC). For the avoidance of doubt, the output may go below this level as a result of operation in accordance with BC3.7.		The minimum output (in whole MW) which a Genset can generate under stable operating conditions, as registered with NGC <u>the System Operator</u> under the PC (and amended pursuant to the PC). For the avoidance of doubt, the output may go below this level as a result of operation in accordance with BC3.7.

<u>Modification</u>	Any actual or proposed replacement, renovation, modification, alteration or construction by or on behalf of a User or NGC to either that User's Plant or Apparatus or NGC's Plant or Apparatus , as the case may be, or the manner of its operation which has or may have a Material Effect on NGC or a User , as the case may be, at a particular Connection Site .		Any actual or proposed replacement, renovation, modification, alteration or construction by or on behalf of a User or NGC <u>the System Operator</u> to either that User's Plant or Apparatus or NGC's <u>Transmission Plant</u> or Apparatus , as the case may be, or the manner of its operation which has or may have a Material Effect on NGC <u>the System Operator</u> or a User , as the case may be, at a particular Connection Site .
<u>Multiple Point of Connection</u>	A double (or more) Point of Connection , being two (or more) Points of Connection interconnected to each other through the User's System .		
<u>National Demand</u>	The amount of electricity supplied from the Grid Supply Points plus:- <ul style="list-style-type: none"> • that supplied by Embedded Large Power Stations, and • NGC Transmission Losses, minus:- <ul style="list-style-type: none"> • the Demand taken by Station Transformers and Pumped Storage Units' and, for the purposes of this definition, does not include:- <ul style="list-style-type: none"> • any exports from the NGC Transmission System across External Interconnections. 		The amount of electricity supplied from the Grid Supply Points plus:- <ul style="list-style-type: none"> • that supplied by Embedded Large Power Stations, and • NGC-Transmission Losses, minus:- <ul style="list-style-type: none"> • the Demand taken by Station Transformers and Pumped Storage Units' and, for the purposes of this definition, does not include:- <ul style="list-style-type: none"> ♦ any exports from the NGC-Transmission System across External Interconnections.
<u>Network Data</u>	The data to be provided by NGC to Users in accordance with the PC , as listed in Part 3 of the Appendix to the PC .		The data to be provided by NGC <u>the System Operator</u> to Users in accordance with the PC , as listed in Part 3 of the Appendix to the PC .

<u>Network Operator</u>	A person with a User System directly connected to the NGC Transmission System to which Customers and/or Power Stations (not forming part of the User System) are connected, acting in its capacity as an operator of the User System , but shall not include a person acting in the capacity of an Externally Interconnected System Operator .		A person with a User System directly connected to the NGC-Transmission System to which Customers and/or Power Stations (not forming part of the User System) are connected, acting in its capacity as an operator of the User System , but shall not include a person acting in the capacity of an Externally Interconnected System Operator
<u>NGC</u>	National Grid Company plc.	<u>NGC</u>	National Grid Company plc.
<u>NGC Control Engineer</u>	The nominated person employed by NGC to direct the operation of the NGC Transmission System .	<u>NGC_System Operator Control Engineer</u>	The nominated person employed by NGCthe System Operator to direct the operation of the NGC-Transmission System .
<u>NGC Demand</u>	The amount of electricity supplied from the Grid Supply Points plus:- <ul style="list-style-type: none"> • that supplied by Embedded Large Power Stations, and • exports from the NGC Transmission System across External Interconnections, and • NGC Transmission Losses, and, for the purposes of this definition, includes:- <ul style="list-style-type: none"> • the Demand taken by Station Transformers and Pumped Storage Units. 	<u>NGCGB Demand</u>	The amount of electricity supplied from the Grid Supply Points plus:- <ul style="list-style-type: none"> • that supplied by Embedded Large Power Stations, and • exports from the NGC-Transmission System across External Interconnections, and • NGC-Transmission Losses, and, for the purposes of this definition, includes:- <ul style="list-style-type: none"> ♦ the Demand taken by Station Transformers and Pumped Storage Units.
<u>NGC Financial Year</u>	Bears the meaning given in Supplementary Standard Condition 1 (Definitions and Interpretation) of the Transmission Licence .	<u>NGC_Financial Year</u>	
<u>NGC Operational Strategy</u>	NGC's operational procedures which form the guidelines for operation of the NGC Transmission System .	<u>NGCSystem Operator Operational Strategy</u>	NGCThe System Operator's operational procedures which form the guidelines for operation of the NGCTransmission System .

<u>NGC Site</u>	Means a site owned (or occupied pursuant to a lease, licence or other agreement) by NGC in which there is a Connection Point . For the avoidance of doubt, a site owned by a User but occupied by NGC as aforesaid, is an NGC Site .	<u>NGC Transmission Site</u>	Means a site owned (or occupied pursuant to a lease, licence or other agreement) by a <u>NGC-Transmission Licensee</u> in which there is a Connection Point . For the avoidance of doubt, a site owned by a User but occupied by <u>NGC-a Transmission Licensee</u> as aforesaid, is an <u>NGC-Transmission Site</u> .
<u>NGC System Warning</u>	A warning issued by NGC to Users (or to certain Users only) in accordance with OC7.4.8.2, which provides information relating to System conditions or Events and is intended to : (a) alert Users to possible or actual Plant shortage, System problems and/or Demand reductions; (b) inform of the applicable period; (c) indicate intended consequences for Users ; and (d) enable specified Users to be in a state of readiness to receive instructions from NGC .	<u>NGC Transmission System Warning</u>	A warning issued by NGC <u>the System Operator</u> to Users (or to certain Users only) in accordance with OC7.4.8.2, which provides information relating to System conditions or Events and is intended to : (a) alert Users to possible or actual Plant shortage, System problems and/or Demand reductions; (b) inform of the applicable period; (c) indicate intended consequences for Users ; and (d) enable specified Users to be in a state of readiness to receive instructions from <u>NGCthe System Operator</u> .
<u>NGC System Warning - Demand Control Imminent</u>	A warning issued by NGC , in accordance with OC7.4.8.7, which is intended to provide short term notice, where possible, to those Users who are likely to receive Demand reduction instructions from NGC within 30 minutes.	<u>NGC Transmission System Warning - Demand Control Imminent</u>	A warning issued by NGC <u>the System Operator</u> , in accordance with OC7.4.8.7, which is intended to provide short term notice, where possible, to those Users who are likely to receive Demand reduction instructions from <u>NGCthe System Operator</u> within 30 minutes.
<u>NGC System Warning - High Risk of Demand Reduction</u>	A warning issued by NGC , in accordance with OC7.4.8.6, which is intended to alert recipients that there is a high risk of Demand reduction being implemented and which may normally result from an inadequate System Margin .	<u>NGC Transmission System Warning - High Risk of Demand Reduction</u>	A warning issued by NGC <u>the System Operator</u> , in accordance with OC7.4.8.6, which is intended to alert recipients that there is a high risk of Demand reduction being implemented and which may normally result from an inadequate System Margin .

<u>NGC System Warning - Inadequate System Margin</u>	A warning issued by NGC , in accordance with OC7.4.8.5, which is intended to alert recipients of an inadequate System Margin and which if not improved may result in Demand reduction being instructed.	NGC <u>Transmission System Warning - Inadequate System Margin</u>	A warning issued by NGC <u>the System Operator</u> , in accordance with OC7.4.8.5, which is intended to alert recipients of an inadequate System Margin and which if not improved may result in Demand reduction being instructed.
<u>NGC System Warning - Risk of System Disturbance</u>	A warning issued by NGC , in accordance with OC7.4.8.8, which is intended to alert Users of the risk of widespread and serious System disturbance which may affect Users .	NGC <u>Transmission System Warning - Risk of System Disturbance</u>	A warning issued by NGC <u>the System Operator</u> , in accordance with OC7.4.8.8, which is intended to alert Users of the risk of widespread and serious System disturbance which may affect Users .
<u>NGC Transmission System</u>	The system consisting (wholly or mainly) of high voltage electric lines owned or operated by NGC and used for the 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 , and includes any Plant and Apparatus and meters owned or operated by NGC in connection with the transmission of electricity but does not include any Remote Transmission Assets .	NGC <u>Transmission System</u>	The system consisting (wholly or mainly) of high voltage electric lines owned or operated by <u>a Transmission Licensee</u> and used for the 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 , and includes any Plant and Apparatus and meters owned or operated by <u>a Transmission Licensee</u> in connection with the transmission of electricity but does not include any Remote Transmission Assets . <u>To be reviewed when licence drafting is available.</u>
<u>NGC Transmission System Losses</u>	The losses of electricity incurred on the NGC Transmission System .	NGC <u>Transmission System Losses</u>	The losses of electricity incurred on the NGC Transmission System .

<u>NGC Transmission System Study Network Data File</u>	A computer file containing details of transmission plant and Large Power Stations and the configuration of the connection between them, together with data on Demand , on the NGC Transmission System , the Scottish External Interconnections and the Scottish External System . These details, when read together as represented in the file, form NGC's view of an appropriate representation of the NGC Transmission System , Scottish External Interconnection and Scottish External System , for technical analysis purposes only. The file will only deal with the NGC Transmission System , the Scottish External Interconnections and aspects of the Scottish External Systems' transmission system. For the purposes of this definition, the phrase " External Systems " shall include the transmission system of Scottish and Southern Energy plc.	<u>NGC Transmission System Study Network Data File</u>	A computer file containing details of transmission plant and Large Power Stations and the configuration of the connection between them, together with data on Demand , on the NGC Transmission System . These details, when read together as represented in the file, form NGC's view of an appropriate representation of the NGC Transmission System for technical analysis purposes only. The file will only deal with the NGC Transmission System .
<u>No-Load Field Voltage</u>	Shall have the meaning ascribed to that term in IEC 34-16-1:1991 [equivalent to British Standard BS4999 Section 116.1 : 1992].		
<u>Non-Embedded Customer</u>	A Customer in England and Wales, except for a Network Operator acting in its capacity as such, receiving electricity direct from the NGC Transmission System irrespective of from whom it is supplied.		A Customer in England and Wales <u>or Scotland</u> , except for a Network Operator acting in its capacity as such, receiving electricity direct from the NGC Transmission System irrespective of from whom it is supplied.
<u>Normal CCGT Module</u>	A CCGT Module other than a Range CCGT Module .		
<u>Novel Unit</u>	A tidal, wave, wind, geothermal, or any similar, Generating Unit .		
<u>OC9 De-synchronised Island Procedure</u>	Has the meaning set out in OC9.5.4.		

<u>On-Site Generator Site</u>	A site which is determined by the BSC Panel to be a Trading Unit under the BSC by reason of having fulfilled the Class 1 or Class 2 requirements as such terms are used in the BSC .		
<u>Operating Code or OC</u>	That portion of the Grid Code which is identified as the Operating Code .		
<u>Operating Margin</u>	Contingency Reserve plus Operating Reserve .		
<u>Operating Reserve</u>	The additional output from Large Power Stations or the reduction in Demand , which must be realisable in real-time operation to respond in order to contribute to containing and correcting any System Frequency fall to an acceptable level in the event of a loss of generation or a loss of import from an External Interconnection or mismatch between generation and Demand .		
<u>Operation</u>	A scheduled or planned action relating to the operation of a System (including an Embedded Power Station).		
<u>Operational Data</u>	Data required under the Operating Codes and/or Balancing Codes .		
<u>Operational Day</u>	The period from 0500 hours on one day to 0500 on the following day.		
<u>Operation Diagrams</u>	Diagrams which are a schematic representation of the HV Apparatus and the connections to all external circuits at a Connection Site , incorporating its numbering, nomenclature and labelling.		
<u>Operational Effect</u>	Any effect on the operation of the relevant other System which causes the System of NGC or the other User or Users , as the case may be, to operate (or be at a materially increased risk of operating) differently to the way in which they would or may have operated in the absence of that effect.		Any effect on the operation of the relevant other System which causes the Transmission System of NGC or the System of the other User or Users , as the case may be, to operate (or be at a materially increased risk of operating) differently to the way in which they would or may have operated in the absence of that effect.

<u>Operational Intertripping</u>	The automatic tripping of circuit-breakers to prevent abnormal system conditions occurring, such as over voltage, overload, System instability, etc. after the tripping of other circuit-breakers following power System fault(s) which includes System to Generating Unit , System to CCGT Module and System to Demand intertripping schemes.		
<u>Operational Planning</u>	Planning through various timescales the matching of generation output with forecast NGC Demand together with a reserve of generation to provide a margin, taking into account outages of certain Generating Units , of parts of the NGC Transmission System and of parts of User Systems to which Power Stations and/or Customers are connected, carried out to achieve, so far as possible, the standards of security set out in the Transmission Licence or Electricity Distribution Licence , as the case may be.		Planning through various timescales the matching of generation output with forecast NGCGB Demand together with a reserve of generation to provide a margin, taking into account outages of certain Generating Units , of parts of the NGC–Transmission System and of parts of User Systems to which Power Stations and/or Customers are connected, carried out to achieve, so far as possible, the standards of security set out in the Transmission Licence or Electricity Distribution Licence , as the case may be.
<u>Operational Planning Margin</u>	An operational planning margin set by NGC .		An operational planning margin set by NGC <u>the System Operator</u> .
<u>Operational Planning Phase</u>	The period from 8 weeks to the end of the 5th year ahead of real time operation.		
<u>Operational Procedures</u>	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 .		
<u>Operational Switching</u>	Operation of Plant and/or Apparatus to the instruction of the relevant NGC Control Engineer and User Responsible Engineer/Operator .		Operation of Plant and/or Apparatus to the instruction of the relevant NGC <u>System Operator Control Engineer</u> and User Responsible Engineer/Operator .
<u>Other Relevant Data</u>	The data listed in BC1.4.2(f) under the heading Other Relevant Data		

<u>Out of Synchronism</u>	The condition where a System or Generating Unit cannot meet the requirements to enable it to be Synchronised .		
<u>Output Usable or OU</u>	That portion of Registered Capacity which is not unavailable due to a Planned Outage or breakdown.		
<u>Over-excitation Limiter</u>	Shall have the meaning ascribed to that term in IEC 34-16-1:1991 [equivalent to British Standard BS4999 Section 116.1 : 1992].		
<u>Part 1 System Ancillary Services</u>	Ancillary Services which are required for System reasons and which must be provided by Users in accordance with the Connection Conditions . An exhaustive list of Part 1 System Ancillary Services is included in that part of CC.8.1 headed Part 1.		
<u>Part 2 System Ancillary Services</u>	Ancillary Services which are required for System reasons and which must be provided by a User if the User has agreed to provide them under a Bilateral Agreement . A non-exhaustive list of Part 2 System Ancillary Services is included in that part of CC.8.1 headed Part 2.		
<u>Part Load</u>	The condition of a Genset which is Loaded but is not running at its Maximum Export Limit.		
<u>Partial Shutdown</u>	The same as a Total Shutdown except that all generation has ceased in a separate part of the Total System and there is no electricity supply from External Interconnections or other parts of the Total System to that part of the Total System and, therefore, that part of the Total System is shutdown, with the result that it is not possible for that part of the Total System to begin to function again without NGC's directions relating to a Black Start .		The same as a Total Shutdown except that all generation has ceased in a separate part of the Total System and there is no electricity supply from External Interconnections or other parts of the Total System to that part of the Total System and, therefore, that part of the Total System is shutdown, with the result that it is not possible for that part of the Total System to begin to function again without NGC <u>the System Operator's</u> directions relating to a Black Start .
<u>Phase (Voltage) Unbalance</u>	The ratio (in percent) between the rms values of the negative sequence component and the positive sequence component of the voltage.		

<u>Physical Notification</u>	Data that describes the BM Participant's best estimate of the expected input or output of Active Power of a BM Unit .		
<u>Planning Code or PC</u>	That portion of the Grid Code which is identified as the Planning Code .		
<u>Planned Maintenance Outage</u>	An outage of the NGC electronic data communication facilities as provided for in CC.6.5.8 and NGC's associated computer facilities of which normally at least 5 days notice is given, but in any event of which at least twelve hours notice has been given by NGC to the User and which is anticipated to last no longer than 2 hours. The length of such an outage may in exceptional circumstances be extended where at least 24 hours notice has been given by NGC to the User . It is anticipated that normally any planned outage would only last around one hour.		An outage of the NGC <u>System Operator</u> electronic data communication facilities as provided for in CC.6.5.8 and NGC <u>the System Operator's</u> associated computer facilities of which normally at least 5 days notice is given, but in any event of which at least twelve hours notice has been given by NGC <u>the System Operator</u> to the User and which is anticipated to last no longer than 2 hours. The length of such an outage may in exceptional circumstances be extended where at least 24 hours notice has been given by NGC <u>the System Operator</u> to the User . It is anticipated that normally any planned outage would only last around one hour.
<u>Planned Outage</u>	An outage of a Large Power Station or of part of the NGC Transmission System , or of part of a User System , co-ordinated by NGC under OC2 .		An outage of a Large Power Station or of part of the NGC Transmission System , or of part of a User System , co-ordinated by NGC <u>the System Operator</u> under OC2 .
<u>Plant</u>	Fixed and movable items used in the generation and/or supply and/or transmission of electricity, other than Apparatus .		
<u>Point of Common Coupling</u>	That point on the NGC Transmission System electrically nearest to the User installation at which either Demands or Loads are, or may be, connected.		That point on the NGC <u>Transmission System</u> electrically nearest to the User installation at which either Demands or Loads are, or may be, connected.
<u>Point of Connection</u>	An electrical point of connection between the NGC Transmission System and a User's System .		An electrical point of connection between the NGC <u>Transmission System</u> and a User's System .
<u>Point of Isolation</u>	The point on Apparatus (as defined in OC8.1.4.2) at which Isolation is achieved.		
<u>Post-Control Phase</u>	The period following real time operation.		
<u>Power Factor</u>	The ratio of Active Power to Apparent Power .		

<u>Power Island</u>	Gensets at an isolated Power Station , together with complementary local Demand .		
<u>Power Station</u>	An installation comprising one or more Generating Units (even where sited separately) owned and/or controlled by the same Generator , which may reasonably be considered as being managed as one Power Station .		
<u>Power System Stabiliser or PSS</u>	Equipment controlling the Exciter output via the voltage regulator in such a way that power oscillations of the synchronous machines are dampened. Input variables may be speed, frequency or power (or a combination of these).		
<u>Preface</u>	The preface to the Grid Code (which does not form part of the Grid Code and therefore is not binding).		
<u>Preliminary Notice</u>	A notice in writing, sent by NGC both to all Users identified by it under OC12.4.2.1 and to the Test Proposer , notifying them of a proposed System Test .		A notice in writing, sent by NGC <u>the System Operator</u> both to all Users identified by it under OC12.4.2.1 and to the Test Proposer , notifying them of a proposed System Test .
<u>Preliminary Project Planning Data</u>	Data relating to a proposed User Development at the time the User applies for a CUSC Contract but before an offer is made and accepted.		

<p><u>Primary Response</u></p>	<p>The automatic increase in Active Power output of a Genset or, as the case may be, the decrease in Active Power Demand in response to a System Frequency fall. This increase in Active Power output or, as the case may be, the decrease in Active Power Demand must be in accordance with the provisions of the relevant Ancillary Services Agreement which will provide that it will be released increasingly with time over the period 0 to 10 seconds from the time of the start of the Frequency fall on the basis set out in the Ancillary Services Agreement and fully available by the latter, and sustainable for at least a further 20 seconds. The interpretation of the Primary Response to a - 0.5 Hz frequency change is shown diagrammatically in Figure CC.A.3.2.</p>		
<p><u>Programming Phase</u></p>	<p>The period between Operational Planning Phase and the Control Phase. It starts at the 8 weeks ahead stage and finishes at 17:00 on the day ahead of real time.</p>		
<p><u>Proposal Notice</u></p>	<p>A notice submitted to NGC by a User which would like to undertake a System Test.</p>		<p>A notice submitted to NGC<u>the System Operator</u> by a User which would like to undertake a System Test.</p>
<p><u>Proposal Report</u></p>	<p>A report submitted by the Test Panel which contains:</p> <ul style="list-style-type: none"> a) proposals for carrying out a System Test (including the manner in which the System Test is to be monitored); b) an allocation of costs (including un-anticipated costs) between the affected parties (the general principle being that the Test Proposer will bear the costs); and c) such other matters as the Test Panel considers appropriate. <p>The report may include requirements for indemnities to be given in respect of claims and losses arising from a System Test.</p>		

<u>Protection</u>	The provisions for detecting abnormal conditions on a System and initiating fault clearance or actuating signals or indications.		
<u>Protection Apparatus</u>	A group of one or more Protection relays and/or logic elements designated to perform a specified Protection function.		
<u>Pumped Storage Generator</u>	A Generator which owns and/or operates any Pumped Storage Plant .		
<u>Pumped Storage Plant</u>	The Dinorwig and Ffestiniog Power Stations .		The Dinorwig, and Ffestiniog, <u>Cruachan and Foyers</u> Power Stations .
<u>Pumped Storage Unit</u>	A Generating Unit within a Pumped Storage Plant .		
<u>Quiescent Physical Notification or QPN</u>	Data that describes the MW levels to be deducted from the Physical Notification of a BM Unit to determine a resultant operating level to which the Dynamic Parameters associated with that BM Unit apply, and the associated times for such MW levels. The MW level of the QPN must always be set to zero.		
<u>Range CCGT Module</u>	A CCGT Module where there is a physical connection by way of a steam or hot gas main between that CCGT Module and another CCGT Module or other CCGT Modules , which connection contributes (if open) to efficient modular operation, and which physical connection can be varied by the operator.		
<u>Rated Field Voltage</u>	Shall have the meaning ascribed to that term in IEC 34-16-1:1991 [equivalent to British Standard BS4999 Section 116.1 : 1992].		
<u>Rated MW</u>	The “rating-plate” MW output of a Generating Unit , being that output up to which the Generating Unit was designed to operate (Calculated as specified in British Standard BS EN 60034 - 1: 1995).		

<u>Reactive Energy</u>	The integral with respect to time of the Reactive Power .		
<u>Reactive Power</u>	The product of voltage and current and the sine of the phase angle between them measured in units of voltamperes reactive and standard multiples thereof, ie: 1000 VAr = 1 kVAr 1000 kVAr = 1 Mvar		
<u>Record of Inter-System Safety Precautions or RISSP</u>	A written record of inter-system Safety Precautions to be compiled in accordance with the provisions of OC8 .		

<u>Registered Capacity</u>	<p>(a) In the case of a Generating Unit other than that forming part of a CCGT Module, the normal full load capacity of a Generating Unit as declared by the Generator, less the MW consumed by the Generating Unit through the Generating Unit's Unit Transformer when producing the same (the resultant figure being expressed in whole MW).</p> <p>(b) In the case of a CCGT Module, the normal full load capacity of a CCGT Module as declared by the Generator, being the Active Power declared by the Generator as being deliverable by the CCGT Module at the Grid Entry Point (or in the case of an Embedded CCGT Module, at the User System Entry Point), expressed in whole MW.</p> <p>(c) In the case of a Power Station, the maximum amount of Active Power deliverable by the Power Station at the Grid Entry Point (or in the case of an Embedded Power Station at the User System Entry Point), as declared by the Generator, expressed in whole MW. The maximum Active Power deliverable is the maximum amount deliverable simultaneously by the Generating Units and/or CCGT Modules less the MW consumed by the Generating Units and/or CCGT Modules in producing that Active Power.</p>		
<u>Registered Data</u>	Those items of Standard Planning Data and Detailed Planning Data which upon connection become fixed (subject to any subsequent changes).		
<u>Regulations</u>	The Utilities Contracts Regulations 1996, as amended from time to time.		

<u>Reheater Time Constant</u>	Determined at Registered Capacity , the reheater time constant will be construed in accordance with the principles of the IEEE Committee Report "Dynamic Models for Steam and Hydro Turbines in Power System Studies" published in 1973 which apply to such phrase.		
<u>Remote Transmission Assets</u>	Any Plant and Apparatus or meters owned by NGC which: a) are Embedded in a User System and which are not directly connected by Plant and/or Apparatus owned by NGC to a sub-station owned by NGC ; and b) are by agreement between NGC and such User operated under the direction and control of such User .		Any Plant and Apparatus or meters owned by NGC <u>Transmission Licensee</u> which: a) are Embedded in a User System and which are not directly connected by Plant and/or Apparatus owned by NGC <u>a Transmission Licensee</u> to a sub-station owned by NGC <u>a Transmission Licensee</u> ; and b) are by agreement between NGC <u>the System Operator</u> and such User operated under the direction and control of such User .
<u>Requesting Safety Co-ordinator</u>	The Safety Co-ordinator requesting Safety Precautions .		
<u>Responsible Engineer/Operator</u>	A person nominated by a User to be responsible for System control.		
<u>Responsible Manager</u>	A manager who has been duly authorised by a User or NGC to sign Site Responsibility Schedules on behalf of that User or NGC , as the case may be.		For consideration by GCEG.
<u>Re-synchronisation</u>	The bringing of parts of the Network Operator's User System which have become Out of Synchronism with each other back into Synchronism , and like terms shall be construed accordingly.		

<u>Safety Co-ordinator</u>	A person or persons nominated by NGC and each User to be responsible for the co-ordination of Safety Precautions at each Connection Point when work (which includes testing) is to be carried out on a System which necessitates the provision of Safety Precautions on HV Apparatus (as defined in OC8.1.4.2), pursuant to OC8 .		For consideration by GCEG.
<u>Safety From The System</u>	That condition which safeguards persons when work is to be carried out on a System from the dangers which are inherent in the System .		
<u>Safety Key</u>	A key unique at the Location capable of operating a lock which will cause an Isolating Device and/or Earthing Device to be Locked .		
<u>Safety Log</u>	A chronological record of messages relating to safety co-ordination sent and received by each Safety Co-ordinator under OC8 .		
<u>Safety Precautions</u>	Isolation and/or Earthing .		
<u>Safety Rules</u>	The rules of NGC or a User that seek to ensure that persons working on Plant and/or Apparatus to which the rules apply are safeguarded from hazards arising from the System .		The rules of NGCa Transmission Licensee or a User that seek to ensure that persons working on Plant and/or Apparatus to which the rules apply are safeguarded from hazards arising from the System .

<u>Secondary Response</u>	The automatic increase in Active Power output of a Genset or, as the case may be, the decrease in Active Power Demand in response to a System Frequency fall. This increase in Active Power output or, as the case may be, the decrease in Active Power Demand must be in accordance with the provisions of the relevant Ancillary Services Agreement which will provide that it will be fully available by 30 seconds from the time of the start of the Frequency fall and be sustainable for at least a further 30 minutes. The interpretation of the Secondary Response to a -0.5 Hz frequency change is shown diagrammatically in Figure CC.A.3.2.		
<u>Secretary of State</u>	Has the same meaning as in the Act .		
<u>Settlement Period</u>	A period of 30 minutes ending on the hour and half-hour in each hour during a day.		
<u>Seven Year Statement</u>	A statement, prepared by NGC in accordance with the terms of the Transmission Licence , showing for each of the seven succeeding NGC Financial Years , the opportunities available for connecting to and using the NGC Transmission System and indicating those parts of the NGC Transmission System most suited to new connections and transport of further quantities of electricity.		A statement, prepared by NGC <u>the System Operator</u> in accordance with the terms of the Transmission Licence , showing for each of the seven succeeding NGC Financial Years , the opportunities available for connecting to and using the NGC Transmission System and indicating those parts of the NGC Transmission System most suited to new connections and transport of further quantities of electricity.
<u>SF₆ Gas Zone</u>	A segregated zone surrounding electrical conductors within a casing containing SF ₆ gas.		
<u>Shutdown</u>	The condition of a Generating Unit where the generator rotor is at rest or on barring.		

<u>Significant Incident</u>	<p>An Event which either:</p> <p>a) was notified by a User to NGC under OC7, and which NGC considers has had or may have had a significant effect on the NGC Transmission System, and NGC requires the User to report that Event in writing in accordance with OC10 and notifies the User accordingly; or</p> <p>b) was notified by NGC to a User under OC7, and which that User considers has had or may have had a significant effect on that User's System, and that User requires NGC to report that Event in writing in accordance with the provisions of OC10 and notifies NGC accordingly.</p>		<p>An Event which either:</p> <p>b) was notified by a User to NGCthe System Operator under OC7, and which NGCthe System Operator considers has had or may have had a significant effect on the NGC–Transmission System, and NGCthe System Operator requires the User to report that Event in writing in accordance with OC10 and notifies the User accordingly; or</p> <p>c) was notified by NGCthe System Operator to a User under OC7, and which that User considers has had or may have had a significant effect on that User's System, and that User requires NGCthe System Operator to report that Event in writing in accordance with the provisions of OC10 and notifies NGCthe System Operator accordingly.</p>
<u>Simultaneous Tap Change</u>	<p>A tap change implemented on the generator step-up transformers of Synchronised Gensets, effected by Generators in response to an instruction from NGC issued simultaneously to the relevant Power Stations. The instruction, preceded by advance notice, must be effected as soon as possible, and in any event within one minute of receipt from NGC of the instruction.</p>		<p>A tap change implemented on the generator step-up transformers of Synchronised Gensets, effected by Generators in response to an instruction from NGCthe System Operator issued simultaneously to the relevant Power Stations. The instruction, preceded by advance notice, must be effected as soon as possible, and in any event within one minute of receipt from NGCthe System Operator of the instruction.</p>
<u>Single Line Diagram</u>	<p>A schematic representation of a three-phase network in which the three phases are represented by single lines. The diagram shall include (but not necessarily be limited to) busbars, overhead lines, underground cables, power transformers and reactive compensation equipment. It shall also show where Large Power Stations are connected, and the points at which Demand is supplied.</p>		
<u>Single Point of Connection</u>	<p>A single Point of Connection, with no interconnection through the User's System to another Point of Connection.</p>		

<u>Site Common Drawings</u>	Drawings prepared for each Connection Site which incorporate Connection Site layout drawings, electrical layout drawings, common protection/ control drawings and common services drawings.		
<u>Site Responsibility Schedule</u>	A schedule containing the information and prepared on the basis of the provisions set out in Appendix 1 of the CC .		
<u>Small Power Station</u>	A Power Station with a Registered Capacity of less than 50MW.		A Power Station in England and Wales with a Registered Capacity of less than 50MW; <u>or a Power Station in SPT's or SHETL's areas with a Registered Capacity of less than 5 MW.</u>
<u>Speeder Motor Setting Range</u>	The minimum and maximum no-load speeds (expressed as a percentage of rated speed) to which the turbine is capable of being controlled, by the speeder motor or equivalent, when the Generating Unit terminals are on open circuit.		
<u>Standard Planning Data</u>	The general data required by NGC under the PC . It is generally also the data which NGC requires from a new User in an application for a CUSC Contract , as reflected in the PC .		The general data required by NGC <u>the System Operator</u> under the PC . It is generally also the data which NGC <u>the System Operator</u> requires from a new User in an application for a CUSC Contract , as reflected in the PC .
<u>Start Time</u>	The time named as such in an instruction issued by NGC pursuant to the BCs .		The time named as such in an instruction issued by NGC <u>the System Operator</u> pursuant to the BCs .
<u>Start-Up</u>	The action of bringing a Generating Unit from Shutdown to Synchronous Speed .		
<u>Statement of Readiness</u>	Has the meaning set out in the Bilateral Agreement and/or Construction Agreement .		
<u>Station Board</u>	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 .		

<u>Station Transformer</u>	A transformer supplying electrical power to the Auxiliaries of a Power Station , which is not directly connected to the Generating Unit terminals (typical voltage ratios being 132/11kV or 275/11kV).		
<u>Steam Unit</u>	A Generating Unit whose prime mover converts the heat-energy in steam to mechanical energy.		
<u>Subtransmission System</u>	The part of a User's System which operates at a single transformation below a Supergrid Voltage .		
<u>Supergrid Voltage</u>	Any voltage greater than 200kV.		Any voltage greater than 200KV <u>in England and Wales or 100kV in Scotland</u> .
<u>Supplier</u>	(a) A person supplying electricity under an Electricity Supply Licence ; or (b) A person supplying electricity under exemption under the Act ; in each case acting in its capacity as a supplier of electricity to Customers in England and Wales.		(a) A person supplying electricity under an Electricity Supply Licence ; or (b) A person supplying electricity under exemption under the Act ; in each case acting in its capacity as a supplier of electricity to Customers in England, and Wales <u>or Scotland</u> .

<p><u>Surplus</u></p>	<p>A MW figure relating to a System Zone equal to the total Output Usable in the System Zone:</p> <p>a) minus the forecast of Active Power Demand in the System Zone, and</p> <p>b) minus the export limit in the case of an export limited System Zone,</p> <p>or</p> <p>plus the import limit in the case of an import limited System Zone,</p> <p>and</p> <p>c) (only in the case of a System Zone comprising the NGC Transmission System) minus the Operational Planning Margin.</p> <p>For the avoidance of doubt, a Surplus of more than zero in an export limited System Zone indicates an excess of generation in that System Zone; and a Surplus of less than zero in an import limited System Zone indicates insufficient generation in that System Zone.</p>		<p>A MW figure relating to a System Zone equal to the total Output Usable in the System Zone:</p> <p>a) minus the forecast of Active Power Demand in the System Zone, and</p> <p>b) minus the export limit in the case of an export limited System Zone,</p> <p>or</p> <p>plus the import limit in the case of an import limited System Zone,</p> <p>and</p> <p>c) (only in the case of a System Zone comprising the NGC-Transmission System) minus the Operational Planning Margin.</p> <p>For the avoidance of doubt, a Surplus of more than zero in an export limited System Zone indicates an excess of generation in that System Zone; and a Surplus of less than zero in an import limited System Zone indicates insufficient generation in that System Zone.</p>
<p><u>Synchronised</u></p>	<p>a) The condition where an incoming Generating Unit or System is connected to the busbars of another System so that the Frequencies and phase relationships of that Generating Unit or System, as the case may be, and the System to which it is connected are identical, like terms shall be construed accordingly.</p> <p>b) The condition where an importing BM Unit is consuming electricity.</p>		
<p><u>Synchronising Generation</u></p>	<p>The amount of MW (in whole MW) produced at the moment of synchronising.</p>		

<u>Synchronising Group</u>	A group of two or more Gensets) which require a minimum time interval between their Synchronising or De-Synchronising times.		
<u>Synchronous Compensation</u>	The operation of rotating synchronous Apparatus for the specific purpose of either the generation or absorption of Reactive Power .		
<u>Synchronous Speed</u>	That speed required by a Generating Unit to enable it to be Synchronised to a System .		
<u>System</u>	Any User System and/or the NGC Transmission System , as the case may be.		Any User System and/or the NGC Transmission System , as the case may be.
<u>System Ancillary Services</u>	Collectively Part 1 System Ancillary Services and Part 2 System Ancillary Services .		
<u>System Constraint</u>	A limitation on the use of a System due to lack of transmission capacity or other System conditions.		
<u>System Constrained Capacity</u>	That portion of Registered Capacity not available due to a System Constraint .		
<u>System Constraint Group</u>	A part of the NGC Transmission System which, because of System Constraints , is subject to limits of Active Power which can flow into or out of (as the case may be) that part.		A part of the NGC Transmission System which, because of System Constraints , is subject to limits of Active Power which can flow into or out of (as the case may be) that part.

<u>System Fault Dependability Index or Dp</u>	<p>A measure of the ability of Protection to initiate successful tripping of circuit-breakers which are associated with a faulty item of Apparatus. It is calculated using the formula:</p> $Dp = 1 - F_1/A$ <p>Where:</p> <p>A = Total number of System faults</p> <p>F₁ = Number of System faults where there was a failure to trip a circuit-breaker.</p>		
<u>System Margin</u>	<p>The margin in any period between</p> <p>(a) the sum of Maximum Export Limits and</p> <p>(b) forecast Demand and the Operating Margin, for that period.</p>		
<u>System Negative Reserve Active Power Margin or System NRAPM</u>	<p>That margin of Active Power sufficient to allow the largest loss of Load at any time.</p>		
<u>System Tests</u>	<p>Tests which involve simulating conditions, or the controlled application of irregular, unusual or extreme conditions, on the Total System, or any part of the Total System, but which do not include commissioning or recommissioning tests or any other tests of a minor nature.</p>		
<u>System to Demand Intertrip Scheme</u>	<p>An intertrip scheme which disconnects Demand when a System fault has arisen to prevent abnormal conditions occurring on the System.</p>		

<u>System Zone</u>	A region of the NGC Transmission System within a described boundary or the whole of the NGC Transmission System , as further provided for in OC2.2.4, and the term " Zonal " will be construed accordingly.		A region of the NGC-Transmission System within a described boundary or the whole of the NGC Transmission System , as further provided for in OC2.2.4, and the term " Zonal " will be construed accordingly.
<u>Target Frequency</u>	That Frequency determined by NGC , in its reasonable opinion, as the desired operating Frequency of the Total System . This will normally be 50.00Hz plus or minus 0.05Hz, except in exceptional circumstances as determined by NGC , in its reasonable opinion when this may be 49.90 or 50.10Hz. An example of exceptional circumstances may be difficulties caused in operating the System during disputes affecting fuel supplies.		That Frequency determined by NGCthe System Operator , in its reasonable opinion, as the desired operating Frequency of the Total System . This will normally be 50.00Hz plus or minus 0.05Hz, except in exceptional circumstances as determined by NGCthe System Operator , in its reasonable opinion when this may be 49.90 or 50.10Hz. An example of exceptional circumstances may be difficulties caused in operating the System during disputes affecting fuel supplies.
<u>Technical Specification</u>	In relation to Plant and/or Apparatus , a) the relevant European Specification ; or b) if there is no relevant European Specification , other relevant standards which are in common use in the European Community.		
<u>Test Co-ordinator</u>	A person who co-ordinates System Tests .		
<u>Test Panel</u>	A panel, whose composition is detailed in OC12 , which is responsible, inter alia, for considering a proposed System Test , and submitting a Proposal Report and a Test Programme .		

<u>Test Programme</u>	A programme submitted by the Test Panel to NGC , the Test Proposer , and each User identified by NGC under OC12.4.2.1, which states the switching sequence and proposed timings of the switching sequence, a list of those staff involved in carrying out the System Test (including those responsible for the site safety) and such other matters as the Test Panel deems appropriate.		A programme submitted by the Test Panel to NGC <u>the System Operator</u> , the Test Proposer , and each User identified by NGC <u>the System Operator</u> under OC12.4.2.1, which states the switching sequence and proposed timings of the switching sequence, a list of those staff involved in carrying out the System Test (including those responsible for the site safety) and such other matters as the Test Panel deems appropriate.
<u>Test Proposer</u>	The person who submits a Proposal Notice .		
<u>Total Shutdown</u>	The situation existing when all generation has ceased and there is no electricity supply from External Interconnections and, therefore, the Total System has shutdown with the result that it is not possible for the Total System to begin to function again without NGC's directions relating to a Black Start .		The situation existing when all generation has ceased and there is no electricity supply from External Interconnections and, therefore, the Total System has shutdown with the result that it is not possible for the Total System to begin to function again without NGC <u>the System Operator</u> 's directions relating to a Black Start .
<u>Total System</u>	The NGC Transmission System and all User Systems in England and Wales.		The NGC <u>Transmission System</u> and all User Systems in England, and Wales <u>and Scotland</u> .
<u>Trading Point</u>	A commercial and, where so specified in the Grid Code , an operational interface between a User and NGC , which a User has notified to NGC .		A commercial and, where so specified in the Grid Code , an operational interface between a User and NGC <u>the System Operator</u> , which a User has notified to NGC <u>the System Operator</u> .
<u>Transfer Date</u>	Such date as may be appointed by the Secretary of State by order under section 65 of the Act .		
<u>Transmission Licence</u>	The licence granted under Section 6(1)(b) of the Act .		

<u>Turbine Time Constant</u>	Determined at Registered Capacity , the turbine time constant will be construed in accordance with the principles of the IEEE Committee Report "Dynamic Models for Steam and Hydro Turbines in Power System Studies" published in 1973 which apply to such phrase.		
<u>Two Shifting Limit</u>	The maximum number of times in any Operational Day that a Genset may De-Synchronise .		
<u>Unbalanced Load</u>	The situation where the Load on each phase is not equal.		
<u>Under-excitation Limiter</u>	Shall have the meaning ascribed to that term in IEC 34-16-1:1991 [equivalent to British Standard BS4999 Section 116.1 : 1992].		
<u>Under Frequency Relay</u>	An electrical measuring relay intended to operate when its characteristic quantity (Frequency) reaches the relay settings by decrease in Frequency .		
<u>Unit Board</u>	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 .		
<u>Unit Transformer</u>	A transformer directly connected to a Generating Unit's terminals, and which supplies power to the Auxiliaries of a Generating Unit . Typical voltage ratios are 23/11kV and 15/6.6Kv.		
<u>Unit Load Controller Response Time Constant</u>	The time constant, expressed in units of seconds, of the power output increase which occurs in the Secondary Response timescale in response to a step change in System Frequency .		

<u>User</u>	A term utilised in various sections of the Grid Code to refer to the persons using the NGC Transmission System , as more particularly identified in each section of the Grid Code concerned. In the Preface and the General Conditions the term means any person to whom the Grid Code applies.		A term utilised in various sections of the Grid Code to refer to the persons using the NGC Transmission System , as more particularly identified in each section of the Grid Code concerned. In the Preface and the General Conditions the term means any person to whom the Grid Code applies.
<u>User Development</u>	In the PC means either User's Plant and/or Apparatus to be connected to the NGC Transmission System , or a Modification relating to a User's Plant and/or Apparatus already connected to the NGC Transmission System , or a proposed new connection or Modification to the connection within the User System .		In the PC means either User's Plant and/or Apparatus to be connected to the NGC Transmission System , or a Modification relating to a User's Plant and/or Apparatus already connected to the NGC Transmission System , or a proposed new connection or Modification to the connection within the User System .
<u>User Site</u>	A site owned (or occupied pursuant to a lease, licence or other agreement) by a User in which there is a Connection Point . For the avoidance of doubt, a site owned by NGC but occupied by a User as aforesaid, is a User Site .		A site owned (or occupied pursuant to a lease, licence or other agreement) by a User in which there is a Connection Point . For the avoidance of doubt, a site owned by <u>a Transmission Licensee</u> but occupied by a User as aforesaid, is a User Site .

<u>User System</u>	<p>Any system owned or operated by a User comprising:-</p> <p>(a) Generating Units; and/or</p> <p>(b) Systems consisting (wholly or mainly) of electric lines 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 Plant and/or Apparatus connecting:-</p> <p>(c) The system as described above; or</p> <p>(d) Non-Embedded Customers equipment;</p> <p>to the NGC 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 NGC Transmission System.</p>		<p>Any system owned or operated by a User comprising:-</p> <p>(a) Generating Units; and/or</p> <p>(b) Systems consisting (wholly or mainly) of electric lines 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>(c) The system as described above; or</p> <p>(d) Non-Embedded Customers equipment;</p> <p>to the NGC 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 NGC Transmission System.</p>
<u>User System Entry Point</u>	A point at which a Generating Unit , a CCGT Module or a CCGT Unit , as the case may be, which is Embedded connects to the User System .		
<u>Water Time Constant</u>	Bears the meaning ascribed to the term "Water inertia time" in IEC308.		
<u>Weekly ACS Conditions</u>	Means that particular combination of weather elements that gives rise to a level of peak Demand within a week, taken to commence on a Monday and end on a Sunday, which has a particular chance of being exceeded as a result of weather variation alone. This particular chance is determined such that the combined probabilities of Demand in all weeks of the year exceeding the annual peak Demand under Annual ACS Conditions is 50%, and in the week of maximum risk the weekly peak Demand under Weekly ACS Conditions is equal to the annual peak Demand under Annual ACS Conditions .		

<u>Zonal System Security Requirements</u>	That generation required, within the boundary circuits defining the System Zone , which when added to the secured transfer capability of the boundary circuits exactly matches the Demand within the System Zone .		
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New Definitions: Additional definitions to be considered

Term	Definition	Comments
System Operator	Means the holder for the time being of a transmission licence in relation to which licence the Authority has issued a Section C Direction and where Section C remains in effect	
Transmission Licensee	Means the holder for the time being of a transmission licence	
Relevant Transmission Licensee	Means SPT in South of Scotland and SHETL in North of Scotland	
Transmission	Means, when used in conjunction with another term relating to equipment or a site, whether defined or not, that the associated term is to be read as being part of or directly associated with the Transmission System, and not of or with the User System	
System Operator - Transmission Owner Code or STC	Means the system operator and transmission owner code required to be in place, pursuant to the transmission licences	
Demand Control Notification Level	12 MW in England and Wales, 0 MW in Scotland.	

Customer Management Notification Level	Demand	12 MW in England and Wales, 5 MW in Scotland.	
SHETL		Scottish Hydro-Electric Transmission Limited	
SPT		Scottish Power Transmission Limited	