

All Recipients of the Serviced Grid Code

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Dear Sir/Madam

**THE SERVICED GRID CODE – ISSUE 5 REVISION 5**

Issue 5 Revision 5 of the Grid Code has been approved by the Authority for implementation on **05 November 2013**.

In order to ensure your copy of the Grid Code remains up to date, you will need to replace the sections affected with the revised versions available on the National Grid website.

The revisions document provides an overview of the changes made to the Grid Code since the previous issue.

Yours faithfully,

Lucy Hudson  
Frameworks Administrator  
Transmission Network Service - Operations (Governance)

## **THE GRID CODE – ISSUE 5 REVISION 5**

### **INCLUSION OF REVISED PAGES**

#### Cover Page

<u>Glossary and Definitions</u>	G&D	-	<b>Entire Section Reissued</b>
<u>General Conditions</u>	GC	-	<b>Entire Section Reissued</b>

### **SUMMARY OF CHANGES**

The changes arise from the implementation of modifications proposed in the following Consultation Papers:

#### **GC0033 - Offshore Wind Farms not connected to an Offshore Transmission System**

##### Summary of Proposal

This proposal seeks to modify the Grid Code to ensure that the benefits afforded to 'Power Park Modules' in the Grid Code are restored to relevant Generators located Offshore and to improve the clarity of the code.

The categories of Users affected by this revision to the Grid Code are:

- Offshore Generating Units powered by an Intermittent Power Source connected to shore by a network not owned by an Offshore Transmission Licensee

#### **GC0071 - Code Governance Review (Phase 2): Significant Code Review**

##### Summary of Proposal

These modifications propose changes to facilitate the implementation of Code Governance Review (Phase 2) into the Grid Code. The Significant Code Review (SCR) process will require the licence holder to raise code Modifications in line with the directions issued by the Authority following an SCR.

The categories of Users affected by this revision to the Grid Code are:

- National Grid
- Grid Code Review Panel
- Authorised Electricity Operators (AEOs)

## **GC0072 - Code Governance Review (Phase 2): Code Administrator and Code Administration Code of Practice**

### Summary of Proposal

This modification proposal seeks to make several changes to the Grid Code, including the requirement to establish an administrative body (the “Code Administrator”) and for the Code Administrator to maintain, publish, review and amend the Code Administration Code of Practice (CACOP).

The categories of Users affected by this revision to the Grid Code are:

- National Grid
- Grid Code Review Panel
- Authorised Electricity Operators (AEOs)

## **GC0073 - Code Governance Review (Phase 2): Send Back Process**

### Summary of Proposal

These modifications propose changes to facilitate the implementation of Code Governance Review (Phase 2) into the Grid Code. The Send Back process will enable the Authority to formally ‘send back’ an Industry Consultation to NGET in circumstances where the Authority considers that it is unable to form a decision based on the content of the consultation.

The categories of Users affected by this revision to the Grid Code are:

- National Grid
- Grid Code Review Panel
- Authorised Electricity Operators (AEOs)



# **THE GRID CODE**

**ISSUE 5**

**REVISION 5**

**05 NOVEMBER 2013**

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# GLOSSARY & DEFINITIONS

## (GD)

GD.1 In the Grid Code the following words and expressions shall, unless the subject matter or context otherwise requires or is inconsistent therewith, bear the following meanings:

**Access Group** A group of **Connection Points** within which a **User** declares under the **Planning Code**

- (a) An interconnection and/or
- (b) A need to redistribute **Demand** between those **Connection Points** either pre-fault or post-fault

Where a single **Connection Point** does not form part of an **Access Group** in accordance with the above, that single **Connection Point** shall be considered to be an **Access Group** in its own right.

**Access Period** A period of time in respect of which each **Transmission Interface Circuit** is to be assessed as whether or not it is capable of being maintained as derived in accordance with PC.A.4.1.4. The period shall commence and end on specified calendar weeks.

**Act** The Electricity Act 1989 (as amended by the Utilities Act 2000 and the Energy Act 2004).

**Active Energy** 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:

- 1000 Wh = 1 kWh
- 1000 kWh = 1 MWh
- 1000 MWh = 1 GWh
- 1000 GWh = 1 TWh

**Active Power** The product of voltage and the in-phase component of alternating current measured in units of watts and standard multiples thereof, ie:

- 1000 Watts = 1 kW
- 1000 kW = 1 MW
- 1000 MW = 1 GW
- 1000 GW = 1 TW

**Affiliate** 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.

**Ancillary Service** A **System Ancillary Service** and/or a **Commercial Ancillary Service**, as the case may be.

<b>Ancillary Services Agreement</b>	An agreement between a <b>User</b> and <b>NGET</b> for the payment by <b>NGET</b> to that <b>User</b> in respect of the provision by such <b>User</b> of <b>Ancillary Services</b> .
<b>Annual Average Cold Spell Conditions</b> or <b>ACS Conditions</b>	A particular combination of weather elements which gives rise to a level of peak <b>Demand</b> within a <b>Financial Year</b> which has a 50% chance of being exceeded as a result of weather variation alone.
<b>Apparent Power</b>	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
<b>Apparatus</b>	Other than in <b>OC8</b> , means all equipment in which electrical conductors are used, supported or of which they may form a part. In <b>OC8</b> it means <b>High Voltage</b> electrical circuits forming part of a <b>System</b> on which <b>Safety Precautions</b> may be applied to allow work and/or testing to be carried out on a <b>System</b> .
<b>Authorised Electricity Operator</b>	Any person (other than <b>NGET</b> in its capacity as operator of the <b>National Electricity Transmission System</b> ) who is authorised under the <b>Act</b> to generate, participate in the transmission of, distribute or supply electricity.
<b>Automatic Voltage Regulator</b> or <b>AVR</b>	The continuously acting automatic equipment controlling the terminal voltage of a <b>Synchronous Generating Unit</b> by comparing the actual terminal voltage with a reference value and controlling by appropriate means the output of an <b>Exciter</b> , depending on the deviations.
<b>Authority for Access</b>	An authority which grants the holder the right to unaccompanied access to sites containing exposed <b>HV</b> conductors.
<b>Authority, The</b>	The <b>Authority</b> established by section 1 (1) of the Utilities Act 2000.
<b>Auxiliaries</b>	Any item of <b>Plant</b> and/or <b>Apparatus</b> not directly a part of the boiler plant or <b>Generating Unit</b> or <b>DC Converter</b> or <b>Power Park Module</b> , but required for the boiler plant's or <b>Generating Unit's</b> or <b>DC Converter's</b> or <b>Power Park Module's</b> functional operation.
<b>Auxiliary Diesel Engine</b>	A diesel engine driving a <b>Generating Unit</b> which can supply a <b>Unit Board</b> or <b>Station Board</b> , which can start without an electrical power supply from outside the <b>Power Station</b> within which it is situated.
<b>Auxiliary Gas Turbine</b>	A <b>Gas Turbine Unit</b> , which can supply a <b>Unit Board</b> or <b>Station Board</b> , which can start without an electrical power supply from outside the <b>Power Station</b> within which it is situated.
<b>Average Conditions</b>	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).
<b>Back-Up Protection</b>	<b>Protection</b> 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 <b>Main Protection</b> to operate or in case of failure to operate of a circuit-breaker other than the associated circuit breaker.
<b>Balancing and Settlement Code</b> or <b>BSC</b>	The code of that title as from time to time amended.



<b>Balancing Code or BC</b>	That portion of the Grid Code which specifies the <b>Balancing Mechanism</b> process.
<b>Balancing Mechanism</b>	Has the meaning set out in <b>NGET's Transmission Licence</b>
<b>Balancing Mechanism Reporting Agent or BMRA</b>	Has the meaning set out in the <b>BSC</b> .
<b>Balancing Mechanism Reporting Service or BMRS</b>	Has the meaning set out in the <b>BSC</b> .
<b>Balancing Principles Statement</b>	A statement prepared by <b>NGET</b> in accordance with Condition C16 of <b>NGET's Transmission Licence</b> .
<b>Bid-Offer Acceptance</b>	(a) A communication issued by <b>NGET</b> in accordance with <b>BC2.7</b> ; or (b) an <b>Emergency Instruction</b> to the extent provided for in BC2.9.2.3.
<b>Bid-Offer Data</b>	Has the meaning set out in the <b>BSC</b> .
<b>Bilateral Agreement</b>	Has the meaning set out in the <b>CUSC</b>
<b>Black Start</b>	The procedure necessary for a recovery from a <b>Total Shutdown</b> or <b>Partial Shutdown</b> .
<b>Black Start Capability</b>	An ability in respect of a <b>Black Start Station</b> , for at least one of its <b>Gensets</b> to <b>Start-Up</b> from <b>Shutdown</b> and to energise a part of the <b>System</b> and be <b>Synchronised</b> to the <b>System</b> upon instruction from <b>NGET</b> , within two hours, without an external electrical power supply.
<b>Black Start Stations</b>	<b>Power Stations</b> which are registered, pursuant to the <b>Bilateral Agreement</b> with a <b>User</b> , as having a <b>Black Start Capability</b> .
<b>Black Start Test</b>	A <b>Black Start Test</b> carried out by a <b>Generator</b> with a <b>Black Start Station</b> , on the instructions of <b>NGET</b> , in order to demonstrate that a <b>Black Start Station</b> has a <b>Black Start Capability</b> .
<b>Block Load Capability</b>	The incremental <b>Active Power</b> steps, from no load to <b>Rated MW</b> , which a generator can instantaneously supply without causing it to trip or go outside the <b>Frequency</b> range of 47.5 – 52Hz (or an otherwise agreed <b>Frequency</b> range). The time between each incremental step shall also be provided.
<b>BM Participant</b>	A person who is responsible for and controls one or more <b>BM Units</b> or where a <b>Bilateral Agreement</b> specifies that a <b>User</b> is required to be treated as a <b>BM Participant</b> for the purposes of the Grid Code. For the avoidance of doubt, it does not imply that they must be active in the <b>Balancing Mechanism</b> .
<b>BM Unit</b>	Has the meaning set out in the <b>BSC</b> , except that for the purposes of the Grid Code the reference to "Party" in the <b>BSC</b> shall be a reference to <b>User</b> .
<b>BM Unit Data</b>	The collection of parameters associated with each <b>BM Unit</b> , as described in Appendix 1 of <b>BC1</b> .

<b>Boiler Time Constant</b>	Determined at <b>Registered Capacity</b> , 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.
<b>British Standards or BS</b>	Those standards and specifications approved by the British Standards Institution.
<b>BSCCo</b>	Has the meaning set out in the <b>BSC</b> .
<b>BSC Panel</b>	Has meaning set out for "Panel" in the <b>BSC</b> .
<b>BS Station Test</b>	A <b>Black Start Test</b> carried out by a <b>Generator</b> with a <b>Black Start Station</b> while the <b>Black Start Station</b> is disconnected from all external alternating current electrical supplies.
<b>BS Unit Test</b>	A <b>Black Start Test</b> carried out on a <b>Generating Unit</b> or a <b>CCGT Unit</b> , as the case may be, at a <b>Black Start Station</b> while the <b>Black Start Station</b> remains connected to an external alternating current electrical supply.
<b>Business Day</b>	Any week day (other than a Saturday) on which banks are open for domestic business in the City of London.
<b>Cancellation of National Electricity Transmission System Warning</b>	The notification given to <b>Users</b> when a <b>National Electricity Transmission System Warning</b> is cancelled.
<b>Cascade Hydro Scheme</b>	Two or more hydro-electric <b>Generating Units</b> , owned or controlled by the same <b>Generator</b> , which are located in the same water catchment area and are at different ordnance datums and which depend upon a common source of water for their operation, known as: <ul style="list-style-type: none"> <li>(a) Moriston</li> <li>(b) Killin</li> <li>(c) Garry</li> <li>(d) Conon</li> <li>(e) Clunie</li> <li>(f) Beaully</li> </ul> which will comprise more than one <b>Power Station</b> .
<b>Cascade Hydro Scheme Matrix</b>	The matrix described in Appendix 1 to <b>BC1</b> under the heading <b>Cascade Hydro Scheme Matrix</b> .
<b>Caution Notice</b>	A notice conveying a warning against interference.
<b>Category 1 Intertripping Scheme</b>	A <b>System to Generator Operational Intertripping Scheme</b> arising from a Variation to Connection Design following a request from the relevant <b>User</b> which is consistent with the criteria specified in the <b>Security and Quality of Supply Standard</b> .

<b>Category 2 Intertripping Scheme</b>	<p>A System to Generator Operational Intertripping Scheme which is:-</p> <ul style="list-style-type: none"> <li>(i) required to alleviate an overload on a circuit which connects the <b>Group</b> containing the <b>User's</b> Connection Site to the <b>National Electricity Transmission System</b>; and</li> <li>(ii) installed in accordance with the requirements of the planning criteria of the <b>Security and Quality of Supply Standard</b> in order that measures can be taken to permit maintenance access for each transmission circuit and for such measures to be economically justified,</li> </ul> <p>and the operation of which results in a reduction in <b>Active Power</b> on the overloaded circuits which connect the <b>User's Connection Site</b> to the rest of the <b>National Electricity Transmission System</b> which is equal to the reduction in <b>Active Power</b> from the <b>Connection Site</b> (once any system losses or third party system effects are discounted).</p>
<b>Category 3 Intertripping Scheme</b>	<p>A <b>System to Generator Operational Intertripping Scheme</b> which, where agreed by <b>NET</b> and the <b>User</b>, is installed to alleviate an overload on, and as an alternative to, the reinforcement of a third party system, such as the <b>Distribution System</b> of a <b>Public Distribution System Operator</b>.</p>
<b>Category 4 Intertripping Scheme</b>	<p>A <b>System to Generator Operational Intertripping Scheme</b> installed to enable the disconnection of the <b>Connection Site</b> from the <b>National Electricity Transmission System</b> in a controlled and efficient manner in order to facilitate the timely restoration of the <b>National Electricity Transmission System</b>.</p>
<b>CENELEC</b>	European Committee for Electrotechnical Standardisation.
<b>CCGT Module Matrix</b>	The matrix described in Appendix 1 to BC1 under the heading <b>CCGT Module Matrix</b> .
<b>CCGT Module Planning Matrix</b>	A matrix in the form set out in Appendix 3 of OC2 showing the combination of <b>CCGT Units</b> within a <b>CCGT Module</b> which would be running in relation to any given MW output.
<b>Cluster</b>	<ul style="list-style-type: none"> <li>(a) Before Telemetry <p>A cluster of wind turbines will be formed when the total wind capacity within any circle of five kilometre radius has a <b>Registered Capacity</b> of not less than 5MW</p> </li> <li>(b) After Telemetry <p>Any wind turbine installed within a five kilometre radius of the anemometer position (whether installed before or after the installation of that anemometer) will be deemed to be within the cluster for that anemometer and will not count towards the creation of any new cluster. All other wind turbines may count towards the creation of further clusters.</p> </li> </ul>
<b>Code Administration Code of Practice</b>	<p>Means the code of practice approved by the <b>Authority</b> and:</p> <ul style="list-style-type: none"> <li>(a) developed and maintained by the code administrators in existence from time to time; and</li> <li>(b) amended subject to the <b>Authority's</b> approval from time to time; and</li> <li>(c) re-published from time to time;</li> </ul>

<b>Code Administrator</b>	Means <b>NGET</b> carrying out the role of <b>Code Administrator</b> in accordance with the General Conditions.
<b>Combined Cycle Gas Turbine Module or CCGT Module</b>	A collection of <b>Generating Units</b> (registered as a <b>CCGT Module</b> under the PC) comprising one or more <b>Gas Turbine Units</b> (or other gas based engine units) and one or more <b>Steam Units</b> where, in normal operation, the waste heat from the <b>Gas Turbines</b> is passed to the water/steam system of the associated <b>Steam Unit</b> or <b>Steam Units</b> and where the component units within the <b>CCGT Module</b> 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 <b>CCGT Module</b> .
<b>Combined Cycle Gas Turbine Unit or CCGT Unit</b>	A <b>Generating Unit</b> within a <b>CCGT Module</b> .
<b>Commercial Ancillary Services</b>	<b>Ancillary Services</b> , other than <b>System Ancillary Services</b> , utilised by <b>NGET</b> in operating the <b>Total System</b> if a <b>User</b> (or other person) has agreed to provide them under an <b>Ancillary Services Agreement</b> or under a <b>Bilateral Agreement</b> with payment being dealt with under an <b>Ancillary Services Agreement</b> or in the case of <b>Externally Interconnected System Operators</b> or <b>Interconnector Users</b> , under any other agreement (and in the case of <b>Externally Interconnected System Operators</b> and <b>Interconnector Users</b> includes ancillary services equivalent to or similar to <b>System Ancillary Services</b> ).
<b>Commercial Boundary</b>	Has the meaning set out in the <b>CUSC</b>
<b>Committed Project Planning Data</b>	Data relating to a <b>User Development</b> once the offer for a <b>CUSC Contract</b> is accepted.
<b>Common Collection Busbar</b>	A busbar within a <b>Power Park Module</b> to which the higher voltage side of two or more <b>Power Park Unit</b> generator transformers are connected.
<b>Completion Date</b>	Has the meaning set out in the <b>Bilateral Agreement</b> with each <b>User</b> to that term or in the absence of that term to such other term reflecting the date when a <b>User</b> is expected to connect to or start using the <b>National Electricity Transmission System</b> . In the case of an <b>Embedded Medium Power Station</b> or <b>Embedded DC Converter Station</b> having a similar meaning in relation to the <b>Network Operator's System</b> as set out in the <b>Embedded Development Agreement</b> .
<b>Complex</b>	A <b>Connection Site</b> together with the associated <b>Power Station</b> and/or <b>Network Operator</b> substation and/or associated <b>Plant</b> and/or <b>Apparatus</b> , as appropriate.
<b>Compliance Processes or CP</b>	That portion of the Grid Code which is identified as the <b>Compliance Processes</b> .

<b>Compliance Statement</b>	<p>A statement completed by the relevant <b>User</b> confirming compliance with each of the relevant Grid Code provisions, and the supporting evidence in respect of such compliance, of its:</p> <p><b>Generating Unit(s)</b>; or,</p> <p><b>CCGT Module(s)</b>; or,</p> <p><b>Power Park Module(s)</b>; or,</p> <p><b>DC Converter(s)</b></p> <p>in the form provided by <b>NGET</b> to the relevant <b>User</b> or another format as agreed between the <b>User</b> and <b>NGET</b>.</p>
<b>Connection Conditions or CC</b>	That portion of the Grid Code which is identified as the <b>Connection Conditions</b> .
<b>Connection Entry Capacity</b>	Has the meaning set out in the <b>CUSC</b>
<b>Connected Planning Data</b>	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 <b>Forecast Data</b> items such as <b>Demand</b> .
<b>Connection Point</b>	A <b>Grid Supply Point</b> or <b>Grid Entry Point</b> , as the case may be.
<b>Connection Site</b>	A <b>Transmission Site</b> or <b>User Site</b> , as the case may be.
<b>Construction Agreement</b>	Has the meaning set out in the <b>CUSC</b>
<b>Contingency Reserve</b>	The margin of generation over forecast <b>Demand</b> which is required in the period from 24 hours ahead down to real time to cover against uncertainties in <b>Large Power Station</b> availability and against both weather forecast and <b>Demand</b> forecast errors.
<b>Control Calls</b>	A telephone call whose destination and/or origin is a key on the control desk telephone keyboard at a <b>Transmission Control Centre</b> and which, for the purpose of <b>Control Telephony</b> , has the right to exercise priority over (ie. disconnect) a call of a lower status.
<b>Control Centre</b>	A location used for the purpose of control and operation of the <b>National Electricity Transmission System</b> or <b>DC Converter Station</b> owner's <b>System</b> or a <b>User System</b> other than a <b>Generator's System</b> or an <b>External System</b> .
<b>Control Engineer</b>	A person nominated by the relevant party for the control of its <b>Plant</b> and <b>Apparatus</b> .
<b>Control Person</b>	The term used as an alternative to " <b>Safety Co-ordinator</b> " on the <b>Site Responsibility Schedule</b> only.
<b>Control Phase</b>	The <b>Control Phase</b> follows on from the <b>Programming Phase</b> and covers the period down to real time.

<b>Control Point</b>	<p>The point from which:-</p> <ul style="list-style-type: none"> <li>(a) A <b>Non-Embedded Customer's Plant and Apparatus</b> is controlled; or</li> <li>(b) A <b>BM Unit</b> at a <b>Large Power Station</b> or at a <b>Medium Power Station</b> or representing a <b>Cascade Hydro Scheme</b> or with a <b>Demand Capacity</b> with a magnitude of: <ul style="list-style-type: none"> <li>(i) 50MW or more in <b>NGET's Transmission Area</b>; or</li> <li>(ii) 30MW or more in <b>SPT's Transmission Area</b>; or</li> <li>(iii) 10MW or more in <b>SHETL's Transmission Area</b>,</li> <li>(iv) 10MW or more which is connected to an <b>Offshore Transmission System</b></li> </ul> <p>is physically controlled by a <b>BM Participant</b>; or</p> </li> <li>(c) In the case of any other <b>BM Unit</b> or <b>Generating Unit</b>, data submission is co-ordinated for a <b>BM Participant</b> and instructions are received from <b>NGET</b>,</li> </ul> <p>as the case may be. For a <b>Generator</b> this will normally be at a <b>Power Station</b> but may be at an alternative location agreed with <b>NGET</b>. In the case of a <b>DC Converter Station</b>, the <b>Control Point</b> will be at a location agreed with <b>NGET</b>. In the case of a <b>BM Unit</b> of an <b>Interconnector User</b>, the <b>Control Point</b> will be the <b>Control Centre</b> of the relevant <b>Externally Interconnected System Operator</b>.</p>
<b>Control Telephony</b>	<p>The principal method by which a <b>User's Responsible Engineer/Operator</b> and <b>NGET Control Engineer(s)</b> speak to one another for the purposes of control of the <b>Total System</b> in both normal and emergency operating conditions.</p>
<b>CUSC</b>	<p>Has the meaning set out in <b>NGET's Transmission Licence</b></p>
<b>CUSC Contract</b>	<p>One or more of the following agreements as envisaged in Standard Condition C1 of <b>NGET's Transmission Licence</b>:</p> <ul style="list-style-type: none"> <li>(a) the <b>CUSC Framework Agreement</b>;</li> <li>(b) a <b>Bilateral Agreement</b>;</li> <li>(c) a <b>Construction Agreement</b></li> </ul> <p>or a variation to an existing <b>Bilateral Agreement</b> and/or <b>Construction Agreement</b>;</p>
<b>CUSC Framework Agreement</b>	<p>Has the meaning set out in <b>NGET's Transmission Licence</b></p>
<b>Customer</b>	<p>A person to whom electrical power is provided (whether or not he is the same person as the person who provides the electrical power).</p>
<b>Customer Demand Management</b>	<p>Reducing the supply of electricity to a <b>Customer</b> or disconnecting a <b>Customer</b> in a manner agreed for commercial purposes between a <b>Supplier</b> and its <b>Customer</b>.</p>
<b>Customer Demand Management Notification Level</b>	<p>The level above which a <b>Supplier</b> has to notify <b>NGET</b> of its proposed or achieved use of <b>Customer Demand Management</b> which is 12 MW in England and Wales and 5 MW in Scotland.</p>

<b>Customer Generating Plant</b>	A <b>Power Station</b> or <b>Generating Unit</b> of a <b>Customer</b> 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 <b>Total System</b> .
<b>Data Registration Code or DRC</b>	That portion of the Grid Code which is identified as the <b>Data Registration Code</b> .
<b>Data Validation, Consistency and Defaulting Rules</b>	The rules relating to validity and consistency of data, and default data to be applied, in relation to data submitted under the <b>Balancing Codes</b> , to be applied by <b>NGET</b> under the <b>Grid Code</b> as set out in the document "Data Validation, Consistency and Defaulting Rules" - Issue 8, dated 25 <sup>th</sup> January 2012. The document is available on the National Grid website or upon request from <b>NGET</b> .
<b>DC Converter</b>	Any <b>Onshore DC Converter</b> or <b>Offshore DC Converter</b> .
<b>DC Converter Station</b>	An installation comprising one or more <b>Onshore DC Converters</b> connecting a direct current interconnector:  to the <b>NGET Transmission System</b> ; or,  (if the installation has a rating of 50MW or more) to a <b>User System</b> ,  and it shall form part of the <b>External Interconnection</b> to which it relates.
<b>DC Network</b>	All items of <b>Plant</b> and <b>Apparatus</b> connected together on the direct current side of a <b>DC Converter</b> .
<b>DCUSA</b>	The Distribution Connection and Use of System Agreement approved by the <b>Authority</b> and required to be maintained in force by each <b>Electricity Distribution Licence</b> holder.
<b>De-Load</b>	The condition in which a <b>Genset</b> has reduced or is not delivering electrical power to the <b>System</b> to which it is <b>Synchronised</b> .
<b>Demand</b>	The demand of MW and Mvar of electricity (i.e. both <b>Active</b> and <b>Reactive Power</b> ), unless otherwise stated.
<b>Demand Capacity</b>	Has the meaning as set out in the <b>BSC</b> .
<b>Demand Control</b>	Any or all of the following methods of achieving a <b>Demand</b> reduction:  (a) <b>Customer</b> voltage reduction initiated by <b>Network Operators</b> (other than following an instruction from <b>NGET</b> );  (b) <b>Customer Demand</b> reduction by <b>Disconnection</b> initiated by <b>Network Operators</b> (other than following an instruction from <b>NGET</b> );  (c) <b>Demand</b> reduction instructed by <b>NGET</b> ;  (d) automatic low <b>Frequency Demand Disconnection</b> ;  (e) emergency manual <b>Demand Disconnection</b> .
<b>Demand Control Notification Level</b>	The level above which a <b>Network Operator</b> has to notify <b>NGET</b> of its proposed or achieved use of <b>Demand Control</b> which is 12 MW in England and Wales and 5 MW in Scotland.
<b>Designed Minimum Operating Level</b>	The output (in whole MW) below which a <b>Genset</b> or a <b>DC Converter</b> at a <b>DC Converter Station</b> (in any of its operating configurations) has no <b>High Frequency Response</b> capability.

<b>De-Synchronise</b>	<p>(a) The act of taking a <b>Generating Unit, Power Park Module</b> or <b>DC Converter</b> off a <b>System</b> to which it has been <b>Synchronised</b>, by opening any connecting circuit breaker; or</p> <p>(b) The act of ceasing to consume electricity at an importing <b>BM Unit</b>; and the term "<b>De-Synchronising</b>" shall be construed accordingly.</p>
<b>De-synchronised Island(s)</b>	Has the meaning set out in OC9.5.1(a)
<b>Detailed Planning Data</b>	Detailed additional data which <b>NGET</b> requires under the <b>PC</b> in support of <b>Standard Planning Data</b> , comprising <b>DPD I</b> and <b>DPD II</b>
<b>Detailed Planning Data Category I or DPD I</b>	The <b>Detailed Planning Data</b> categorised as such in the <b>DRC</b> , and submitted in accordance with PC.4.4.2 or PC.4.4.4 as applicable.
<b>Detailed Planning Data Category II or DPD II</b>	The <b>Detailed Planning Data</b> categorised as such in the <b>DRC</b> , and submitted in accordance with PC.4.4.2 or PC.4.4.4 as applicable.
<b>Discrimination</b>	The quality where a relay or protective system is enabled to pick out and cause to be disconnected only the faulty <b>Apparatus</b> .
<b>Disconnection</b>	The physical separation of <b>Users</b> (or <b>Customers</b> ) from the <b>National Electricity Transmission System</b> or a <b>User System</b> as the case may be.
<b>Disputes Resolution Procedure</b>	The procedure described in the <b>CUSC</b> relating to disputes resolution.
<b>Distribution Code</b>	The distribution code required to be drawn up by each <b>Electricity Distribution Licence</b> holder and approved by the <b>Authority</b> , as from time to time revised with the approval of the <b>Authority</b> .
<b>Droop</b>	The ratio of the per unit steady state change in speed, or in <b>Frequency</b> to the per unit steady state change in power output.
<b>Dynamic Parameters</b>	Those parameters listed in Appendix 1 to <b>BC1</b> under the heading <b>BM Unit Data – Dynamic Parameters</b> .
<b>E&amp;W Offshore Transmission System</b>	An <b>Offshore Transmission System</b> with an <b>Interface Point</b> in England and Wales.
<b>E&amp;W Offshore Transmission Licensee</b>	A person who owns or operates an <b>E&amp;W Offshore Transmission System</b> pursuant to a <b>Transmission Licence</b> .
<b>E&amp;W Transmission System</b>	Collectively <b>NGET's Transmission System</b> and any <b>E&amp;W Offshore Transmission Systems</b> .
<b>E&amp;W User</b>	A <b>User</b> in <b>England</b> and <b>Wales</b> or any <b>Offshore User</b> who owns or operates <b>Plant</b> and/or <b>Apparatus</b> connected to an <b>E&amp;W Offshore Transmission System</b> .
<b>Earth Fault Factor</b>	At a selected location of a three-phase <b>System</b> (generally the point of installation of equipment) and for a given <b>System</b> configuration, the ratio of the highest root mean square phase-to-earth power <b>Frequency</b> 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 <b>Frequency</b> voltage which would be obtained at the selected location without the fault.



<b>Earthing</b>	A way of providing a connection between conductors and earth by an <b>Earthing Device</b> which is either: <ul style="list-style-type: none"> <li>(a) Immobilised and <b>Locked</b> in the earthing position. Where the <b>Earthing Device</b> is <b>Locked</b> with a <b>Safety Key</b>, the <b>Safety Key</b> must be secured in a <b>Key Safe</b> and the <b>Key Safe Key</b> must be, where reasonably practicable, given to the authorised site representative of the <b>Requesting Safety Co-ordinator</b> and is to be retained in safe custody. Where not reasonably practicable the <b>Key Safe Key</b> must be retained by the authorised site representative of the <b>Implementing Safety Co-ordinator</b> in safe custody; or</li> <li>(b) maintained and/or secured in position by such other method which must be in accordance with the <b>Local Safety Instructions</b> of <b>NGET</b> or the <b>Safety Rules</b> of the <b>Relevant Transmission Licensee</b> or that <b>User</b>, as the case may be.</li> </ul>
<b>Earthing Device</b>	A means of providing a connection between a conductor and earth being of adequate strength and capability.
<b>Electrical Standard</b>	A standard listed in the Annex to the <b>General Conditions</b> .
<b>Electricity Council</b>	That body set up under the Electricity Act, 1957.
<b>Electricity Distribution Licence</b>	The licence granted pursuant to Section 6(1) (c) of the <b>Act</b> .
<b>Electricity Supply Industry Arbitration Association</b>	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.
<b>Electricity Supply Licence</b>	The licence granted pursuant to Section 6(1) (d) of the <b>Act</b> .
<b>Electromagnetic Compatibility Level</b>	Has the meaning set out in <b>Engineering Recommendation G5/4</b> .
<b>Embedded</b>	Having a direct connection to a <b>User System</b> or the <b>System</b> of any other <b>User</b> to which <b>Customers</b> and/or <b>Power Stations</b> are connected, such connection being either a direct connection or a connection via a busbar of another <b>User</b> or of a <b>Transmission Licensee</b> (but with no other connection to the <b>National Electricity Transmission System</b> ).
<b>Embedded Development</b>	Has the meaning set out in PC.4.4.3(a)
<b>Embedded Development Agreement</b>	An agreement entered into between a <b>Network Operator</b> and an <b>Embedded Person</b> , identifying the relevant site of connection to the <b>Network Operator's System</b> and setting out other site specific details in relation to that use of the <b>Network Operator's System</b> .
<b>Embedded Person</b>	The party responsible for a <b>Medium Power Station</b> not subject to a <b>Bilateral Agreement</b> or <b>DC Converter Station</b> not subject to a <b>Bilateral Agreement</b> connected to or proposed to be connected to a <b>Network Operator's System</b> .
<b>Emergency Deenergisation Instruction</b>	an <b>Emergency Instruction</b> issued by <b>NGET</b> to <b>De-Synchronise</b> a <b>Generating Unit</b> , <b>Power Park Module</b> or <b>DC Converter</b> in circumstances specified in the <b>CUSC</b> .

<b>Emergency Instruction</b>	An instruction issued by <b>NGET</b> in emergency circumstances, pursuant to BC2.9, to the <b>Control Point</b> of a <b>User</b> . In the case of such instructions applicable to a <b>BM Unit</b> , it may require an action or response which is outside the <b>Dynamic Parameters, QPN</b> or <b>Other Relevant Data</b> , and may include an instruction to trip a <b>Genset</b> .
<b>Engineering Recommendations</b>	The documents referred to as such and issued by the Energy Networks Association or the former Electricity Council.
<b>Energisation Operational Notification or EON</b>	A notification (in respect of <b>Plant</b> and <b>Apparatus</b> which is directly connected to the <b>National Electricity Transmission System</b> ) from <b>NGET</b> to a <b>User</b> confirming that the <b>User</b> can in accordance with the <b>Bilateral Agreement</b> and/or <b>Construction Agreement</b> , energise such <b>User's Plant</b> and <b>Apparatus</b> (including <b>OTSUA</b> ) specified in such notification.
<b>Estimated Registered Data</b>	Those items of <b>Standard Planning Data</b> and <b>Detailed Planning Data</b> which either upon connection will become <b>Registered Data</b> , or which for the purposes of the <b>Plant</b> and/or <b>Apparatus</b> concerned as at the date of submission are <b>Registered Data</b> , but in each case which for the seven succeeding <b>Financial Years</b> will be an estimate of what is expected.
<b>European Specification</b>	A common technical specification, a <b>British Standard</b> 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 <b>Regulations</b> .
<b>Event</b>	An unscheduled or unplanned (although it may be anticipated) occurrence on, or relating to, a <b>System</b> (including <b>Embedded Power Stations</b> ) including, without limiting that general description, faults, incidents and breakdowns and adverse weather conditions being experienced.
<b>Exciter</b>	The source of the electrical power providing the field current of a synchronous machine.
<b>Excitation System</b>	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.
<b>Excitation System No-Load Negative Ceiling Voltage</b>	The minimum value of direct voltage that the <b>Excitation System</b> is able to provide from its terminals when it is not loaded, which may be zero or a negative value.
<b>Excitation System Nominal Response</b>	Shall have the meaning ascribed to that term in <b>IEC 34-16-1:1991</b> [equivalent to <b>British Standard BS4999</b> Section 116.1 : 1992]. The time interval applicable is the first half-second of excitation system voltage response.
<b>Excitation System On-Load Positive Ceiling Voltage</b>	Shall have the meaning ascribed to the term 'Excitation system on load ceiling voltage' in <b>IEC 34-16-1:1991</b> [equivalent to <b>British Standard BS4999</b> Section 116.1 : 1992].
<b>Excitation System No-Load Positive Ceiling Voltage</b>	Shall have the meaning ascribed to the term 'Excitation system no load ceiling voltage' in <b>IEC 34-16-1:1991</b> [equivalent to <b>British Standard BS4999</b> Section 116.1 : 1992].
<b>Exemptable</b>	Has the meaning set out in the <b>CUSC</b> .

<b>Existing AGR Plant</b>	<p>The following nuclear advanced gas cooled reactor plant (which was commissioned and connected to the <b>Total System</b> at the <b>Transfer Date</b>):-</p> <ul style="list-style-type: none"> <li>(a) Dungeness B</li> <li>(b) Hinkley Point B</li> <li>(c) Heysham 1</li> <li>(d) Heysham 2</li> <li>(e) Hartlepool</li> <li>(f) Hunterston B</li> <li>(g) Torness</li> </ul>
<b>Existing AGR Plant Flexibility Limit</b>	<p>In respect of each <b>Genset</b> within each <b>Existing AGR Plant</b> 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 <b>NGET</b> in relation to operation in <b>Frequency Sensitive Mode</b> 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 <b>NGET</b>) for the purpose of assisting in the period of low <b>System NRAPM</b> and/or low <b>Localised NRAPM</b> provided that in relation to each <b>Generating Unit</b> 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 <b>NGET</b> 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>
<b>Existing Gas Cooled Reactor Plant</b>	<p>Both <b>Existing Magnox Reactor Plant</b> and <b>Existing AGR Plant</b>.</p>
<b>Existing Magnox Reactor Plant</b>	<p>The following nuclear gas cooled reactor plant (which was commissioned and connected to the <b>Total System</b> at the <b>Transfer Date</b>):-</p> <ul style="list-style-type: none"> <li>(a) Calder Hall</li> <li>(b) Chapelcross</li> <li>(c) Dungeness A</li> <li>(d) Hinkley Point A</li> <li>(e) Oldbury-on-Severn</li> <li>(f) Bradwell</li> <li>(g) Sizewell A</li> <li>(h) Wylfa</li> </ul>
<b>Export and Import Limits</b>	<p>Those parameters listed in Appendix 1 to <b>BC1</b> under the heading <b>BM Unit Data – Export and Import Limits</b>.</p>
<b>External Interconnection</b>	<p><b>Apparatus</b> for the transmission of electricity to or from the <b>National Electricity Transmission System</b> or a <b>User System</b> into or out of an <b>External System</b>. For the avoidance of doubt, a single <b>External Interconnection</b> may comprise several circuits operating in parallel.</p>
<b>External Interconnection Circuit</b>	<p><b>Plant</b> or <b>Apparatus</b> which comprises a circuit and which operates in parallel with another circuit and which forms part of the <b>External Interconnection</b>.</p>

<b>Externally Interconnected System Operator</b> or EISO	A person who operates an <b>External System</b> which is connected to the <b>National Electricity Transmission System</b> or a <b>User System</b> by an <b>External Interconnection</b> .
<b>External System</b>	In relation to an <b>Externally Interconnected System Operator</b> means the transmission or distribution system which it owns or operates which is located outside <b>the National Electricity Transmission System Operator Area</b> any <b>Apparatus</b> or <b>Plant</b> which connects that system to the <b>External Interconnection</b> and which is owned or operated by such <b>Externally Interconnected System Operator</b> .
<b>Fault Current Interruption Time</b>	The time interval from fault inception until the end of the break time of the circuit breaker (as declared by the manufacturers).
<b>Fast Start</b>	A start by a <b>Genset</b> with a <b>Fast Start Capability</b> .
<b>Fast Start Capability</b>	The ability of a <b>Genset</b> to be <b>Synchronised</b> and <b>Loaded</b> up to full <b>Load</b> within 5 minutes.
<b>Final Generation Outage Programme</b>	An outage programme as agreed by <b>NGET</b> with each <b>Generator</b> and each <b>Interconnector Owner</b> at various stages through the <b>Operational Planning Phase</b> and <b>Programming Phase</b> which does not commit the parties to abide by it, but which at various stages will be used as the basis on which <b>National Electricity Transmission System</b> outages will be planned.
<b>Final Operational Notification</b> or <b>FON</b>	<p>A notification from <b>NGET</b> to a <b>Generator</b> or <b>DC Converter Station</b> owner confirming that the <b>User</b> has demonstrated compliance:</p> <ul style="list-style-type: none"> <li>(a) with the Grid Code, (or where they apply, that relevant derogations have been granted), and</li> <li>(b) where applicable, with Appendices F1 to F5 of the <b>Bilateral Agreement</b>,</li> </ul> <p>in each case in respect of the <b>Plant</b> and <b>Apparatus</b> specified in such notification.</p>
<b>Final Physical Notification Data</b>	Has the meaning set out in the <b>BSC</b> .
<b>Final Report</b>	A report prepared by the <b>Test Proposer</b> at the conclusion of a <b>System Test</b> for submission to <b>NGET</b> (if it did not propose the <b>System Test</b> ) and other members of the <b>Test Panel</b> .
<b>Financial Year</b>	Bears the meaning given in Condition A1 (Definitions and Interpretation) of <b>NGET's Transmission Licence</b> .
<b>Flicker Severity (Long Term)</b>	A value derived from 12 successive measurements of <b>Flicker Severity (Short Term)</b> (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 <b>Engineering Recommendation P28</b> as current at the <b>Transfer Date</b> .
<b>Flicker Severity (Short Term)</b>	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 <b>Customer</b> complaints.
<b>Forecast Data</b>	Those items of <b>Standard Planning Data</b> and <b>Detailed Planning Data</b> which will always be forecast.

<b>Frequency</b>	The number of alternating current cycles per second (expressed in Hertz) at which a <b>System</b> is running.
<b>Frequency Sensitive AGR Unit</b>	Each <b>Generating Unit</b> in an <b>Existing AGR Plant</b> for which the <b>Generator</b> has notified <b>NGET</b> that it has a safety case agreed with the Nuclear Installations Inspectorate enabling it to operate in <b>Frequency Sensitive Mode</b> , to the extent that such unit is within its <b>Frequency Sensitive AGR Unit Limit</b> . Each such <b>Generating Unit</b> shall be treated as if it were operating in accordance with BC3.5.1 provided that it is complying with its <b>Frequency Sensitive AGR Unit Limit</b> .
<b>Frequency Sensitive AGR Unit Limit</b>	In respect of each <b>Frequency Sensitive AGR Unit</b> , 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 <b>System</b> or <b>Localised NRAPM</b> totals 8) instances of reduction of output in any calendar year as instructed by <b>NGET</b> in relation to operation in <b>Frequency Sensitive Mode</b> (or such greater number as may be agreed between <b>NGET</b> and the <b>Generator</b> ), for the purpose of assisting with <b>Frequency</b> control, provided the level of operation of each <b>Frequency Sensitive AGR Unit</b> in <b>Frequency Sensitive Mode</b> shall not be outside that agreed by the Nuclear Installations Inspectorate in the relevant safety case.
<b>Frequency Sensitive Mode</b>	A <b>Genset</b> operating mode which will result in <b>Active Power</b> output changing, in response to a change in <b>System Frequency</b> , in a direction which assists in the recovery to <b>Target Frequency</b> , by operating so as to provide <b>Primary Response</b> and/or <b>Secondary Response</b> and/or <b>High Frequency Response</b> .
<b>Fuel Security Code</b>	The document of that title designated as such by the <b>Secretary of State</b> , as from time to time amended.
<b>Gas Turbine Unit</b>	A <b>Generating Unit</b> driven by a gas turbine (for instance by an aero-engine).
<b>Gas Zone Diagram</b>	A single line diagram showing boundaries of, and interfaces between, gas-insulated <b>HV Apparatus</b> modules which comprise part, or the whole, of a substation at a <b>Connection Site</b> (or in the case of <b>OTSDUW Plant and Apparatus, Transmission Interface Site</b> ), together with the associated stop valves and gas monitors required for the safe operation of the <b>National Electricity Transmission System</b> or the <b>User System</b> , as the case may be.
<b>Gate Closure</b>	Has the meaning set out in the <b>BSC</b> .
<b>GC Modification Proposal</b>	A proposal to modify the <b>Grid Code</b> which is not rejected pursuant to the terms of the <b>Grid Code</b> and has not yet been implemented.
<b>General Conditions or GC</b>	That portion of the Grid Code which is identified as the <b>General Conditions</b> .
<b>Generating Plant Demand Margin</b>	The difference between <b>Output Usable</b> and forecast <b>Demand</b> .
<b>Generating Unit</b>	An <b>Onshore Generating Unit</b> and/or an <b>Offshore Generating Unit</b> .

<b>Generating Unit Data</b>	<p>The <b>Physical Notification, Export and Import Limits</b> and <b>Other Relevant Data</b> only in respect of each <b>Generating Unit</b>:</p> <ul style="list-style-type: none"> <li>(a) which forms part of the <b>BM Unit</b> which represents that <b>Cascade Hydro Scheme</b>;</li> <li>(b) at an <b>Embedded Exemptable Large Power Station</b>, where the relevant <b>Bilateral Agreement</b> specifies that compliance with <b>BC1</b> and/or <b>BC2</b> is required: <ul style="list-style-type: none"> <li>(i) to each <b>Generating Unit</b>, or</li> <li>(ii) to each <b>Power Park Module</b> where the <b>Power Station</b> comprises <b>Power Park Modules</b></li> </ul> </li> </ul>
<b>Generation Capacity</b>	Has the meaning set out in the <b>BSC</b> .
<b>Generation Planning Parameters</b>	Those parameters listed in Appendix 2 of <b>OC2</b> .
<b>Generator</b>	A person who generates electricity under licence or exemption under the <b>Act</b> acting in its capacity as a generator in <b>Great Britain</b> or <b>Offshore</b> .
<b>Generator Performance Chart</b>	A diagram which shows the MW and Mvar capability limits within which a <b>Generating Unit</b> will be expected to operate under steady state conditions.
<b>Genset</b>	A <b>Generating Unit, Power Park Module</b> or <b>CCGT Module</b> at a <b>Large Power Station</b> or any <b>Generating Unit, Power Park Module</b> or <b>CCGT Module</b> which is directly connected to the <b>National Electricity Transmission System</b> .
<b>Good Industry Practice</b>	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.
<b>Governor Deadband</b>	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.
<b>Great Britain or GB</b>	The landmass of England and Wales and Scotland, including internal waters.
<b>Grid Code Review Panel or Panel</b>	The panel with the functions set out in GC.4.
<b>Grid Entry Point</b>	An <b>Onshore Grid Entry Point</b> or an <b>Offshore Grid Entry Point</b> .
<b>Grid Supply Point</b>	A point of supply from the <b>National Electricity Transmission System</b> to <b>Network Operators</b> or <b>Non-Embedded Customers</b> .
<b>Group</b>	Those <b>National Electricity Transmission System</b> sub-stations bounded solely by the faulted circuit(s) and the overloaded circuit(s) excluding any third party connections between the <b>Group</b> and the rest of the <b>National Electricity Transmission System</b> , the faulted circuit(s) being a <b>Secured Event</b> .

<b>High Frequency Response</b>	An automatic reduction in <b>Active Power</b> output in response to an increase in <b>System Frequency</b> above the <b>Target Frequency</b> (or such other level of <b>Frequency</b> as may have been agreed in an <b>Ancillary Services Agreement</b> ). This reduction in <b>Active Power</b> output must be in accordance with the provisions of the relevant <b>Ancillary Services Agreement</b> which will provide that it will be released increasingly with time over the period 0 to 10 seconds from the time of the <b>Frequency</b> increase on the basis set out in the <b>Ancillary Services Agreement</b> and fully achieved within 10 seconds of the time of the start of the <b>Frequency</b> increase and it must be sustained at no lesser reduction thereafter. The interpretation of the <b>High Frequency Response</b> to a + 0.5 Hz frequency change is shown diagrammatically in Figure CC.A.3.3.
<b>High Voltage or HV</b>	For <b>E&amp;W Transmission Systems</b> , a voltage exceeding 650 volts. For <b>Scottish Transmission Systems</b> , a voltage exceeding 1000 volts.
<b>HV Connections</b>	<b>Apparatus</b> connected at the same voltage as that of the <b>National Electricity Transmission System</b> , including <b>Users'</b> circuits, the higher voltage windings of <b>Users'</b> transformers and associated connection <b>Apparatus</b> .
<b>HP Turbine Power Fraction</b>	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 <b>Registered Capacity</b> .
<b>IEC</b>	International Electrotechnical Commission.
<b>IEC Standard</b>	A standard approved by the International Electrotechnical Commission.
<b>Implementing Safety Co-ordinator</b>	The <b>Safety Co-ordinator</b> implementing <b>Safety Precautions</b> .
<b>Import Usable</b>	That portion of <b>Registered Import Capacity</b> which is expected to be available and which is not unavailable due to a <b>Planned Outage</b> .
<b>Incident Centre</b>	A centre established by <b>NGET</b> or a <b>User</b> as the focal point in <b>NGET</b> or in that <b>User</b> , as the case may be, for the communication and dissemination of information between the senior management representatives of <b>NGET</b> , or of that <b>User</b> , as the case may be, and the relevant other parties during a <b>Joint System Incident</b> in order to avoid overloading <b>NGET's</b> , or that <b>User's</b> , as the case may be, existing operational/control arrangements.
<b>Indicated Constraint Boundary Margin</b>	The difference between a constraint boundary transfer limit and the difference between the sum of <b>BM Unit</b> Maximum Export Limits and the forecast of local <b>Demand</b> within the constraint boundary.
<b>Indicated Imbalance</b>	The difference between the sum of <b>Physical Notifications</b> for <b>BM Units</b> comprising <b>Generating Units</b> or <b>CCGT Modules</b> and the forecast of <b>Demand</b> for the whole or any part of the <b>System</b> .
<b>Indicated Margin</b>	The difference between the sum of <b>BM Unit</b> Maximum Export Limits submitted and the forecast of <b>Demand</b> for the whole or any part of the <b>System</b>
<b>Instructor Facilities</b>	A device or system which gives certain <b>Transmission Control Centre</b> instructions with an audible or visible alarm, and incorporates the means to return message acknowledgements to the <b>Transmission Control Centre</b>

<b>Integral Equipment Test or IET</b>	A test on equipment, associated with <b>Plant</b> and/or <b>Apparatus</b> , which takes place when that <b>Plant</b> and/or <b>Apparatus</b> forms part of a <b>Synchronised System</b> and which, in the reasonable judgement of the person wishing to perform the test, may cause an <b>Operational Effect</b> .
<b>Interconnection Agreement</b>	An agreement made between <b>NGET</b> and an <b>Externally Interconnected System Operator</b> and/or an <b>Interconnector User</b> and/or other relevant persons for the <b>External Interconnection</b> relating to an <b>External Interconnection</b> and/or an agreement under which an <b>Interconnector User</b> can use an <b>External Interconnection</b> .
<b>Interconnector Export Capacity</b>	In relation to an <b>External Interconnection</b> means the (daily or weekly) forecast value (in MW) at the time of the (daily or weekly) peak demand, of the maximum level at which the <b>External Interconnection</b> can export to the <b>Grid Entry Point</b> .
<b>Interconnector Import Capacity</b>	In relation to an <b>External Interconnection</b> means the (daily or weekly) forecast value (in MW) at the time of the (daily or weekly) peak demand of the maximum level at which the <b>External Interconnection</b> can import from the <b>Grid Entry Point</b> .
<b>Interconnector Owner</b>	Has the meaning given to the term in the <b>Connection and Use of System Code</b> .
<b>Interconnector User</b>	Has the meaning set out in the <b>BSC</b> .
<b>Interface Agreement</b>	Has the meaning set out in the <b>CUSC</b> .
<b>Interface Point</b>	As the context admits or requires either; <ul style="list-style-type: none"> <li>(a) the electrical point of connection between an <b>Offshore Transmission System</b> and an <b>Onshore Transmission System</b>, or</li> <li>(b) the electrical point of connection between an <b>Offshore Transmission System</b> and a <b>Network Operator's User System</b>.</li> </ul>
<b>Interface Point Capacity</b>	The maximum amount of <b>Active Power</b> transferable at the <b>Interface Point</b> as declared by a <b>User</b> under the <b>OTSDUW Arrangements</b> expressed in whole MW.
<b>Interface Point Target Voltage/Power factor</b>	The nominal target voltage/power factor at an <b>Interface Point</b> which a <b>Network Operator</b> requires <b>NGET</b> to achieve by operation of the relevant <b>Offshore Transmission System</b> .
<b>Interim Operational Notification or ION</b>	A notification from <b>NGET</b> to a <b>Generator</b> or <b>DC Converter Station</b> owner acknowledging that the <b>User</b> has demonstrated compliance, except for the <b>Unresolved Issues</b> ; <ul style="list-style-type: none"> <li>(a) with the Grid Code, and</li> <li>(b) where applicable, with Appendices F1 to F5 of the <b>Bilateral Agreement</b>,</li> </ul> in each case in respect of the <b>Plant</b> and <b>Apparatus</b> specified in such notification.
<b>Intermittent Power Source</b>	The primary source of power for a <b>Generating Unit</b> that can not be considered as controllable, e.g. wind, wave or solar.



<b>Intertripping</b>	<ul style="list-style-type: none"> <li>(a) The tripping of circuit-breaker(s) by commands initiated from <b>Protection</b> at a remote location independent of the state of the local <b>Protection</b>; or</li> <li>(b) <b>Operational Intertripping</b>.</li> </ul>
<b>Intertrip Apparatus</b>	<b>Apparatus</b> which performs <b>Intertripping</b> .
<b>IP Turbine Power Fraction</b>	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 <b>Registered Capacity</b> .
<b>Isolating Device</b>	A device for achieving <b>Isolation</b> .
<b>Isolation</b>	<p>The disconnection of <b>HV Apparatus</b> (as defined in OC8A.1.6.2 and OC8B.1.7.2) from the remainder of the <b>System</b> in which that <b>HV Apparatus</b> is situated by either of the following:</p> <ul style="list-style-type: none"> <li>(a) an <b>Isolating Device</b> maintained in an isolating position. The isolating position must either be: <ul style="list-style-type: none"> <li>(i) maintained by immobilising and <b>Locking</b> the <b>Isolating Device</b> in the isolating position and affixing a <b>Caution Notice</b> to it. Where the <b>Isolating Device</b> is <b>Locked</b> with a <b>Safety Key</b>, the <b>Safety Key</b> must be secured in a <b>Key Safe</b> and the <b>Key Safe Key</b> must be, where reasonably practicable, given to the authorised site representative of the <b>Requesting Safety Co-Ordinator</b> and is to be retained in safe custody. Where not reasonably practicable the <b>Key Safe Key</b> must be retained by the authorised site representative of the <b>Implementing Safety Co-ordinator</b> in safe custody; or</li> <li>(ii) maintained and/or secured by such other method which must be in accordance with the <b>Local Safety Instructions</b> of <b>NGET</b> or the <b>Safety Rules</b> of the <b>Relevant Transmission Licensee</b> or that <b>User</b>, as the case may be; or</li> </ul> </li> <li>(b) an adequate physical separation which must be in accordance with and maintained by the method set out in the <b>Local Safety Instructions</b> of <b>NGET</b> or the <b>Safety Rules</b> of the <b>Relevant Transmission Licensee</b> or that <b>User</b>, as the case may be.</li> </ul>
<b>Joint BM Unit Data</b>	Has the meaning set out in the <b>BSC</b> .
<b>Joint System Incident</b>	An <b>Event</b> wherever occurring (other than on an <b>Embedded Medium Power Station</b> or an <b>Embedded Small Power Station</b> ) which, in the opinion of <b>NGET</b> or a <b>User</b> , has or may have a serious and/or widespread effect, in the case of an <b>Event</b> on a <b>User(s) System(s)</b> (other than on an <b>Embedded Medium Power Station</b> or <b>Embedded Small Power Station</b> ), on the <b>National Electricity Transmission System</b> , and in the case of an <b>Event</b> on the <b>National Electricity Transmission System</b> , on a <b>User(s) System(s)</b> (other than on an <b>Embedded Medium Power Station</b> or <b>Embedded Small Power Station</b> ).
<b>Key Safe</b>	A device for the secure retention of keys.
<b>Key Safe Key</b>	A key unique at a <b>Location</b> capable of operating a lock, other than a control lock, on a <b>Key Safe</b> .

<b>Large Power Station</b>	<p>A <b>Power Station</b> which is</p> <p>(a) directly connected to:</p> <ul style="list-style-type: none"> <li>(i) <b>NGET's Transmission System</b> where such <b>Power Station</b> has a <b>Registered Capacity</b> of 100MW or more; or</li> <li>(ii) <b>SPT's Transmission System</b> where such <b>Power Station</b> has a <b>Registered Capacity</b> of 30MW or more; or</li> <li>(iii) <b>SHETL's Transmission System</b> where such <b>Power Station</b> has a <b>Registered Capacity</b> of 10MW or more; or</li> <li>(iv) an <b>Offshore Transmission System</b> where such <b>Power Station</b> has a <b>Registered Capacity</b> of 10MW or more;</li> </ul> <p>or,</p> <p>(b) <b>Embedded</b> within a <b>User System</b> (or part thereof) where such <b>User System</b> (or part thereof) is connected under normal operating conditions to:</p> <ul style="list-style-type: none"> <li>(i) <b>NGET's Transmission System</b> and such <b>Power Station</b> has a <b>Registered Capacity</b> of 100MW or more; or</li> <li>(ii) <b>SPT's Transmission System</b> and such <b>Power Station</b> has a <b>Registered Capacity</b> of 30MW or more; or</li> <li>(iii) <b>SHETL's Transmission System</b> and such <b>Power Station</b> has a <b>Registered Capacity</b> of 10MW or more;</li> </ul> <p>or,</p> <p>(c) <b>Embedded</b> within a <b>User System</b> (or part thereof) where the <b>User System</b> (or part thereof) is not connected to the <b>National Electricity Transmission System</b>, although such <b>Power Station</b> is in:</p> <ul style="list-style-type: none"> <li>(i) <b>NGET's Transmission Area</b> where such <b>Power Station</b> has a <b>Registered Capacity</b> of 100MW or more; or</li> <li>(ii) <b>SPT's Transmission Area</b> where such <b>Power Station</b> has a <b>Registered Capacity</b> of 30MW or more; or</li> <li>(iii) <b>SHETL's Transmission Area</b> where such <b>Power Station</b> has a <b>Registered Capacity</b> of 10MW or more;</li> </ul>
<b>Licence</b>	Any licence granted to <b>NGET</b> or a <b>Relevant Transmission Licensee</b> or a <b>User</b> , under Section 6 of the <b>Act</b> .
<b>Licence Standards</b>	Those standards set out or referred to in Condition C17 of <b>NGET's Transmission Licence</b> and/or Condition D3 and/or Condition E16 of a <b>Relevant Transmission Licensee's Transmission Licence</b> .
<b>Limited Frequency Sensitive Mode</b>	A mode whereby the operation of the <b>Genset</b> (or <b>DC Converter</b> at a <b>DC Converter Station</b> exporting <b>Active Power</b> to the <b>Total System</b> ) is <b>Frequency</b> insensitive except when the <b>System Frequency</b> exceeds 50.4Hz, from which point <b>Limited High Frequency Response</b> must be provided.
<b>Limited High Frequency Response</b>	A response of a <b>Genset</b> (or <b>DC Converter</b> at a <b>DC Converter Station</b> exporting <b>Active Power</b> to the <b>Total System</b> ) to an increase in <b>System Frequency</b> above 50.4Hz leading to a reduction in <b>Active Power</b> in accordance with the provisions of BC3.7.2.

<b>Limited Operational Notification or LON</b>	<p>A notification from <b>NGET</b> to a <b>Generator</b> or <b>DC Converter Station</b> owner stating that the <b>User's Plant</b> and/or <b>Apparatus</b> specified in such notification may be, or is, unable to comply:</p> <p>(a) with the provisions of the Grid Code specified in the notice, and</p> <p>(b) where applicable, with Appendices F1 to F5 of the <b>Bilateral Agreement</b> ,</p> <p>and specifying the <b>Unresolved Issues</b>.</p>
<b>Load</b>	The <b>Active, Reactive</b> or <b>Apparent Power</b> , as the context requires, generated, transmitted or distributed.
<b>Loaded</b>	Supplying electrical power to the <b>System</b> .
<b>Load Factor</b>	The ratio of the actual output of a <b>Generating Unit</b> to the possible maximum output of that <b>Generating Unit</b> .
<b>Load Management Block</b>	A block of <b>Demand</b> controlled by a <b>Supplier</b> or other party through the means of radio teleswitching or by some other means.
<b>Local Joint Restoration Plan</b>	<p>A plan produced under OC9.4.7.12 detailing the agreed method and procedure by which a <b>Genset</b> at a <b>Black Start Station</b> (possibly with other <b>Gensets</b> at that <b>Black Start Station</b>) will energise part of the <b>Total System</b> and meet complementary blocks of local <b>Demand</b> so as to form a <b>Power Island</b>.</p> <p>In Scotland, the plan may also: cover more than one <b>Black Start Station</b>; include <b>Gensets</b> other than those at a <b>Black Start Station</b> and cover the creation of one or more <b>Power Islands</b>.</p>
<b>Local Safety Instructions</b>	For safety co-ordination in England and Wales, instructions on each <b>User Site</b> and <b>Transmission Site</b> , approved by the relevant <b>NGET</b> or <b>User's</b> manager, setting down the methods of achieving the objectives of <b>NGET's</b> or the <b>User's Safety Rules</b> , as the case may be, to ensure the safety of personnel carrying out work or testing on <b>Plant</b> and/or <b>Apparatus</b> on which his <b>Safety Rules</b> apply and, in the case of a <b>User</b> , any other document(s) on a <b>User Site</b> which contains rules with regard to maintaining or securing the isolating position of an <b>Isolating Device</b> , or maintaining a physical separation or maintaining or securing the position of an <b>Earthing Device</b> .
<b>Local Switching Procedure</b>	A procedure produced under OC7.6 detailing the agreed arrangements in respect of carrying out of <b>Operational Switching</b> at <b>Connection Sites</b> and parts of the <b>National Electricity Transmission System</b> adjacent to those <b>Connection Sites</b> .
<b>Localised Negative Reserve Active Power Margin or Localised NRAPM</b>	That margin of <b>Active Power</b> sufficient to allow transfers to and from a <b>System Constraint Group</b> (as the case may be) to be contained within such reasonable limit as <b>NGET</b> may determine.
<b>Location</b>	Any place at which <b>Safety Precautions</b> are to be applied.
<b>Locked</b>	A condition of <b>HV Apparatus</b> that cannot be altered without the operation of a locking device.
<b>Locking</b>	The application of a locking device which enables <b>HV Apparatus</b> to be <b>Locked</b> .

<b>Low Frequency Relay</b>	Has the same meaning as <b>Under Frequency Relay</b> .
<b>Low Voltage</b> or LV	For <b>E&amp;W Transmission Systems</b> a voltage not exceeding 250 volts. For <b>Scottish Transmission Systems</b> , a voltage exceeding 50 volts but not exceeding 1000 volts.
<b>LV Side of the Offshore Platform</b>	Unless otherwise specified in the <b>Bilateral Agreement</b> , the busbar on the <b>Offshore Platform</b> (typically 33kV) at which the relevant <b>Offshore Grid Entry Point</b> is located.
<b>Main Protection</b>	<b>Protection</b> 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.
<b>Manufacturer's Data &amp; Performance Report</b>	A report submitted by a manufacturer to <b>NGET</b> relating to a specific version of a <b>Power Park Unit</b> demonstrating the performance characteristics of such <b>Power Park Unit</b> in respect of which <b>NGET</b> has evaluated its relevance for the purposes of the <b>Compliance Processes</b> .
<b>Material Effect</b>	An effect causing <b>NGET</b> or a <b>Relevant Transmission Licensee</b> to effect any works or to alter the manner of operation of <b>Transmission Plant</b> and/or <b>Transmission Apparatus</b> at the <b>Connection Site</b> (which term shall, in this definition and in the definition of " <b>Modification</b> " only, have the meaning ascribed thereto in the <b>CUSC</b> ) or the site of connection or a <b>User</b> to effect any works or to alter the manner of operation of its <b>Plant</b> and/or <b>Apparatus</b> at the <b>Connection Site</b> or the site of connection which in either case involves that party in expenditure of more than £10,000.
<b>Maximum Export Capacity</b>	The maximum continuous <b>Apparent Power</b> expressed in MVA and maximum continuous <b>Active Power</b> expressed in MW which can flow from an <b>Offshore Transmission System</b> connected to a <b>Network Operator's User System</b> , to that <b>User System</b> .
<b>Maximum Generation Service or MGS</b>	A service utilised by <b>NGET</b> in accordance with the <b>CUSC</b> and the <b>Balancing Principles Statement</b> in operating the <b>Total System</b> .
<b>Maximum Generation Service Agreement</b>	An agreement between a <b>User</b> and <b>NGET</b> for the payment by <b>NGET</b> to that <b>User</b> in respect of the provision by such <b>User</b> of a <b>Maximum Generation Service</b> .
<b>Maximum Import Capacity</b>	The maximum continuous <b>Apparent Power</b> expressed in MVA and maximum continuous <b>Active Power</b> expressed in MW which can flow from an <b>Offshore Transmission System</b> connected to a <b>Network Operator's User System</b> , to that <b>User System</b> .

<b>Medium Power Station</b>	<p>A <b>Power Station</b> which is</p> <p>(a) directly connected to <b>NGET's Transmission System</b> where such <b>Power Station</b> has a <b>Registered Capacity</b> of 50MW or more but less than 100MW;</p> <p>or,</p> <p>(b) <b>Embedded</b> within a <b>User System</b> (or part thereof) where such <b>User System</b> (or part thereof) is connected under normal operating conditions to <b>NGET's Transmission System</b> and such <b>Power Station</b> has a <b>Registered Capacity</b> of 50MW or more but less than 100MW;</p> <p>or,</p> <p>(c) <b>Embedded</b> within a <b>User System</b> (or part thereof) where the <b>User System</b> (or part thereof) is not connected to the <b>National Electricity Transmission System</b>, although such <b>Power Station</b> is in <b>NGET's Transmission Area</b> and such <b>Power Station</b> has a <b>Registered Capacity</b> of 50MW or more but less than 100MW.</p>
<b>Medium Voltage or MV</b>	For <b>E&amp;W Transmission Systems</b> a voltage exceeding 250 volts but not exceeding 650 volts.
<b>Mills</b>	Milling plant which supplies pulverised fuel to the boiler of a coal fired <b>Power Station</b> .
<b>Minimum Generation</b>	The minimum output (in whole MW) which a <b>Genset</b> can generate or <b>DC Converter</b> at a <b>DC Converter Station</b> can import or export to the <b>Total System</b> under stable operating conditions, as registered with <b>NGET</b> under the <b>PC</b> (and amended pursuant to the <b>PC</b> ). For the avoidance of doubt, the output may go below this level as a result of operation in accordance with BC3.7.
<b>Minimum Import Capacity</b>	The minimum input (in whole MW) into a <b>DC Converter</b> at a <b>DC Converter Station</b> (in any of its operating configurations) at the <b>Onshore Grid Entry Point</b> (or in the case of an <b>Embedded DC Converter</b> at the <b>User System Entry Point</b> ) at which a <b>DC Converter</b> can operate in a stable manner, as registered with <b>NGET</b> under the <b>PC</b> (and amended pursuant to the <b>PC</b> ).
<b>Modification</b>	Any actual or proposed replacement, renovation, modification, alteration or construction by or on behalf of a <b>User</b> or <b>NGET</b> to either that <b>User's Plant</b> or <b>Apparatus</b> or <b>Transmission Plant</b> or <b>Apparatus</b> , as the case may be, or the manner of its operation which has or may have a <b>Material Effect</b> on <b>NGET</b> or a <b>User</b> , as the case may be, at a particular <b>Connection Site</b> .
<b>Mothballed DC Converter at a DC Converter Station</b>	A <b>DC Converter</b> at a <b>DC Converter Station</b> that has previously imported or exported power which the <b>DC Converter Station</b> owner plans not to use to import or export power for the remainder of the current <b>Financial Year</b> but which could be returned to service.
<b>Mothballed Generating Unit</b>	A <b>Generating Unit</b> that has previously generated which the <b>Generator</b> plans not to use to generate for the remainder of the current <b>NGET Financial Year</b> but which could be returned to service.
<b>Mothballed Power Park Module</b>	A <b>Power Park Module</b> that has previously generated which the <b>Generator</b> plans not to use to generate for the remainder of the current <b>Financial Year</b> but which could be returned to service.

<b>Multiple Point of Connection</b>	A double (or more) <b>Point of Connection</b> , being two (or more) <b>Points of Connection</b> interconnected to each other through the <b>User's System</b> .
<b>National Demand</b>	<p>The amount of electricity supplied from the <b>Grid Supply Points</b> plus:-</p> <ul style="list-style-type: none"> <li>• that supplied by <b>Embedded Large Power Stations</b>, and</li> <li>• <b>National Electricity Transmission System Losses</b>,</li> </ul> <p>minus:-</p> <ul style="list-style-type: none"> <li>• the <b>Demand</b> taken by <b>Station Transformers</b> and <b>Pumped Storage Units'</b></li> </ul> <p>and, for the purposes of this definition, does not include:-</p> <ul style="list-style-type: none"> <li>• any exports from the <b>National Electricity Transmission System</b> across <b>External Interconnections</b>.</li> </ul>
<b>National Electricity Transmission System</b>	The <b>Onshore Transmission System</b> and <b>Offshore Transmission Systems</b> .
<b>National Electricity Transmission System Demand</b>	<p>The amount of electricity supplied from the <b>Grid Supply Points</b> plus:-</p> <ul style="list-style-type: none"> <li>• that supplied by <b>Embedded Large Power Stations</b>, and</li> <li>• exports from the <b>National Electricity Transmission System</b> across <b>External Interconnections</b>, and</li> <li>• <b>National Electricity Transmission System Losses</b>,</li> </ul> <p>and, for the purposes of this definition, includes:-</p> <ul style="list-style-type: none"> <li>• the <b>Demand</b> taken by <b>Station Transformers</b> and <b>Pumped Storage Units</b>.</li> </ul>
<b>National Electricity Transmission System Losses</b>	The losses of electricity incurred on the <b>National Electricity Transmission System</b> .
<b>National Electricity Transmission System Operator Area</b>	Has the meaning set out in Schedule 1 of <b>NGET's Transmission Licence</b> .
<b>National Electricity Transmission System Study Network Data File</b>	A computer file produced by <b>NGET</b> which in <b>NGET's</b> view provides an appropriate representation of the <b>National Electricity Transmission System</b> for a specific point in time. The computer file will contain information and data on <b>Demand</b> on the <b>National Electricity Transmission System</b> and on <b>Large Power Stations</b> including <b>Genset</b> power output consistent with <b>Output Usable</b> and <b>NGET's</b> view of prevailing system conditions.
<b>National Electricity Transmission System Warning</b>	<p>A warning issued by <b>NGET</b> to <b>Users</b> (or to certain <b>Users</b> only) in accordance with OC7.4.8.2, which provides information relating to <b>System</b> conditions or <b>Events</b> and is intended to :</p> <ol style="list-style-type: none"> <li>(a) alert <b>Users</b> to possible or actual <b>Plant</b> shortage, <b>System</b> problems and/or <b>Demand</b> reductions;</li> <li>(b) inform of the applicable period;</li> <li>(c) indicate intended consequences for <b>Users</b>; and</li> <li>(d) enable specified <b>Users</b> to be in a state of readiness to receive instructions from <b>NGET</b>.</li> </ol>

<b>National Electricity Transmission System Warning - Demand Control Imminent</b>	A warning issued by <b>NGET</b> , in accordance with OC7.4.8.7, which is intended to provide short term notice, where possible, to those <b>Users</b> who are likely to receive <b>Demand</b> reduction instructions from <b>NGET</b> within 30 minutes.
<b>National Electricity Transmission System Warning - High Risk of Demand Reduction</b>	A warning issued by <b>NGET</b> , in accordance with OC7.4.8.6, which is intended to alert recipients that there is a high risk of <b>Demand</b> reduction being implemented and which may normally result from an inadequate <b>System Margin</b> .
<b>National Electricity Transmission System Warning - Inadequate System Margin</b>	A warning issued by <b>NGET</b> , in accordance with OC7.4.8.5, which is intended to alert recipients of an inadequate <b>System Margin</b> and which if not improved may result in <b>Demand</b> reduction being instructed.
<b>National Electricity Transmission System Warning - Risk of System Disturbance</b>	A warning issued by <b>NGET</b> , in accordance with OC7.4.8.8, which is intended to alert <b>Users</b> of the risk of widespread and serious <b>System</b> disturbance which may affect <b>Users</b> .
<b>Network Data</b>	The data to be provided by <b>NGET</b> to <b>Users</b> in accordance with the <b>PC</b> , as listed in Part 3 of the Appendix to the <b>PC</b> .
<b>Network Operator</b>	A person with a <b>User System</b> directly connected to the <b>National Electricity Transmission System</b> to which <b>Customers</b> and/or <b>Power Stations</b> (not forming part of the <b>User System</b> ) are connected, acting in its capacity as an operator of the <b>User System</b> , but shall not include a person acting in the capacity of an <b>Externally Interconnected System Operator</b> or a <b>Generator</b> in respect of <b>OTSUA</b> .
<b>NGET</b>	National Grid Electricity Transmission plc (NO: 2366977) whose registered office is at 1-3 Strand, London, WC2N 5EH.
<b>NGET Control Engineer</b>	The nominated person employed by <b>NGET</b> to direct the operation of the <b>National Electricity Transmission System</b> or such person as nominated by <b>NGET</b> .
<b>NGET Operational Strategy</b>	<b>NGET's</b> operational procedures which form the guidelines for operation of the <b>National Electricity Transmission System</b> .
<b>No-Load Field Voltage</b>	Shall have the meaning ascribed to that term in <b>IEC 34-16-1:1991</b> [equivalent to <b>British Standard BS4999</b> Section 116.1 : 1992].
<b>No System Connection</b>	As defined in OC8A.1.6.2 and OC8B.1.7.2
<b>Notification of User's Intention to Synchronise</b>	A notification from a <b>Generator</b> or <b>DC Converter Station</b> owner to <b>NGET</b> informing <b>NGET</b> of the date upon which a <b>Generating Unit(s)</b> , <b>CCGT Module(s)</b> , <b>Power Park Module(s)</b> or <b>DC Converter(s)</b> will be ready to be <b>Synchronised</b> to the <b>Total System</b> .
<b>Non-Embedded Customer</b>	A <b>Customer</b> in <b>Great Britain</b> , except for a <b>Network Operator</b> acting in its capacity as such, receiving electricity direct from the <b>Onshore Transmission System</b> irrespective of from whom it is supplied.
<b>Non-Synchronous Generating Unit</b>	An <b>Onshore Non-Synchronous Generating Unit</b> or <b>Offshore Non-Synchronous Generating Unit</b> .
<b>Normal CCGT Module</b>	A <b>CCGT Module</b> other than a <b>Range CCGT Module</b> .
<b>Novel Unit</b>	A tidal, wave, wind, geothermal, or any similar, <b>Generating Unit</b> .

<b>OC9 De-synchronised Island Procedure</b>	Has the meaning set out in OC9.5.4.
<b>Offshore</b>	Means wholly or partly in <b>Offshore Waters</b> , and when used in conjunction with another term and not defined means that the associated term is to be read accordingly.
<b>Offshore DC Converter</b>	Any <b>User Apparatus</b> located <b>Offshore</b> used to convert alternating current electricity to direct current electricity, or vice versa. An <b>Offshore DC Converter</b> is a standalone operative configuration at a single site comprising one or more converter bridges, together with one or more converter transformers, converter control equipment, essential protective and switching devices and auxiliaries, if any, used for conversion.
<b>Offshore Development Information Statement</b>	A statement prepared by <b>NGET</b> in accordance with Special Condition C4 of <b>NGET's Transmission Licence</b> .
<b>Offshore Generating Unit</b>	Unless otherwise provided in the Grid Code, any <b>Apparatus</b> located <b>Offshore</b> which produces electricity, including, an <b>Offshore Synchronous Generating Unit</b> and <b>Offshore Non-Synchronous Generating Unit</b> .
<b>Offshore Grid Entry Point</b>	In the case of:- <ul style="list-style-type: none"> <li>(a) an <b>Offshore Generating Unit</b> or an <b>Offshore DC Converter</b>, as the case may be, which is directly connected to an <b>Offshore Transmission System</b>, the point at which it connects to that <b>Offshore Transmission System</b>, or;</li> <li>(b) an <b>Offshore Power Park Module</b> which is directly connected to an <b>Offshore Transmission System</b>, the point where one <b>Power Park String</b> (registered by itself as a <b>Power Park Module</b>) or the collection of points where a number of <b>Offshore Power Park Strings</b> (registered as a single <b>Power Park Module</b>) connects to that <b>Offshore Transmission System</b>, or;</li> <li>(c) an <b>External Interconnection</b> which is directly connected to an <b>Offshore Transmission System</b>, the point at which it connects to that <b>Offshore Transmission System</b>.</li> </ul>
<b>Offshore Non-Synchronous Generating Unit</b>	An <b>Offshore Generating Unit</b> that is not an <b>Offshore Synchronous Generating Unit</b> including for the avoidance of doubt a <b>Power Park Unit</b> located <b>Offshore</b> .
<b>Offshore Platform</b>	A single structure comprising of <b>Plant</b> and <b>Apparatus</b> located <b>Offshore</b> which includes one or more <b>Offshore Grid Entry Points</b> .
<b>Offshore Power Park Module</b>	A collection of one or more <b>Offshore Power Park Strings</b> (registered as a <b>Power Park Module</b> under the <b>PC</b> ). There is no limit to the number of <b>Power Park Strings</b> within the <b>Power Park Module</b> , so long as they either: <ul style="list-style-type: none"> <li>(a) connect to the same busbar which cannot be electrically split; or</li> <li>(b) connect to a collection of directly electrically connected busbars of the same nominal voltage and are configured in accordance with the operating arrangements set out in the relevant <b>Bilateral Agreement</b>.</li> </ul>



<b>Offshore Power Park String</b>	A collection of <b>Offshore Generating Units</b> that are powered by an <b>Intermittent Power Source</b> , joined together by cables forming part of a <b>User System</b> with a single point of connection to an <b>Offshore Transmission System</b> . The connection to an <b>Offshore Transmission System</b> may include a <b>DC Converter</b> .
<b>Offshore Synchronous Generating Unit</b>	An <b>Offshore Generating Unit</b> in which, under all steady state conditions, the rotor rotates at a mechanical speed equal to the electrical frequency of the <b>National Electricity Transmission System</b> divided by the number of pole pairs of the <b>Generating Unit</b> .
<b>Offshore Tender Process</b>	The process followed by the <b>Authority</b> to make, in prescribed cases, a determination on a competitive basis of the person to whom an offshore transmission licence is to be granted.
<b>Offshore Transmission Distribution Connection Agreement</b>	An agreement entered into by <b>NGET</b> and a <b>Network Operator</b> in respect of the connection to and use of a <b>Network Operator's User System</b> by an <b>Offshore Transmission System</b> .
<b>Offshore Transmission Licensee</b>	Such person in relation to whose <b>Transmission Licence</b> the standard conditions in Section E (offshore transmission owner standard conditions) of such <b>Transmission Licence</b> have been given effect, or any person in that prospective role who has acceded to the <b>STC</b> .
<b>Offshore Transmission System</b>	A system consisting (wholly or mainly) of high voltage electric lines owned or operated by an <b>Offshore Transmission Licensee</b> and used for the transmission of electricity from one <b>Power Station</b> to a sub-station or to another <b>Power Station</b> or between sub-stations, and includes any <b>Plant</b> and <b>Apparatus</b> and meters owned or operated by any <b>Offshore Transmission Licensee</b> in connection with the transmission of electricity but does not include any <b>Remote Transmission Assets</b> . An <b>Offshore Transmission System</b> extends from the <b>Interface Point</b> , or the <b>Offshore Grid Entry Point(s)</b> and may include <b>Plant</b> and <b>Apparatus</b> located <b>Onshore</b> and <b>Offshore</b> and, where the context permits, references to the <b>Offshore Transmission System</b> includes <b>OTSUA</b> .
<b>Offshore Waters</b>	Has the meaning given to "offshore waters" in Section 90(9) of the Energy Act 2004.
<b>Offshore Works Assumptions</b>	In relation to a particular <b>User</b> means those assumptions set out in Appendix P of the relevant <b>Construction Agreement</b> as amended from time to time.
<b>Onshore</b>	Means within <b>Great Britain</b> , and when used in conjunction with another term and not defined means that the associated term is to be read accordingly.
<b>Onshore DC Converter</b>	Any <b>User Apparatus</b> located <b>Onshore</b> with a <b>Completion Date</b> after 1 <sup>st</sup> April 2005 used to convert alternating current electricity to direct current electricity, or vice versa. An <b>Onshore DC Converter</b> is a standalone operative configuration at a single site comprising one or more converter bridges, together with one or more converter transformers, converter control equipment, essential protective and switching devices and auxiliaries, if any, used for conversion. In a bipolar arrangement, an <b>Onshore DC Converter</b> represents the bipolar configuration.

<b>Onshore Generating Unit</b>	Unless otherwise provided in the Grid Code, any <b>Apparatus</b> located <b>Onshore</b> which produces electricity, including, an <b>Onshore Synchronous Generating Unit</b> and <b>Onshore Non-Synchronous Generating Unit</b> .
<b>Onshore Grid Entry Point</b>	A point at which a <b>Onshore Generating Unit</b> or a <b>CCGT Module</b> or a <b>CCGT Unit</b> or a <b>Onshore DC Converter</b> or a <b>Onshore Power Park Module</b> or an <b>External Interconnection</b> , as the case may be, which is directly connected to the <b>Onshore Transmission System</b> connects to the <b>Onshore Transmission System</b> .
<b>Onshore Non-Synchronous Generating Unit</b>	A <b>Generating Unit</b> located <b>Onshore</b> that is not a <b>Synchronous Generating Unit</b> including for the avoidance of doubt a <b>Power Park Unit</b> located <b>Onshore</b> .
<b>Onshore Power Park Module</b>	A collection of <b>Non-Synchronous Generating Units</b> (registered as a <b>Power Park Module</b> under the <b>PC</b> ) that are powered by an <b>Intermittent Power Source</b> , joined together by a <b>System</b> with a single electrical point of connection directly to the <b>Onshore Transmission System</b> (or <b>User System</b> if <b>Embedded</b> ) with no intermediate <b>Offshore Transmission System</b> connections. The connection to the <b>Onshore Transmission System</b> (or <b>User System</b> if <b>Embedded</b> ) may include a <b>DC Converter</b> .
<b>Onshore Synchronous Generating Unit</b>	An <b>Onshore Generating Unit</b> including, for the avoidance of doubt, a <b>CCGT Unit</b> in which, under all steady state conditions, the rotor rotates at a mechanical speed equal to the electrical frequency of the <b>National Electricity Transmission System</b> divided by the number of pole pairs of the <b>Generating Unit</b> .
<b>Onshore Transmission Licensee</b>	<b>NGET, SPT, or SHETL.</b>
<b>Onshore Transmission System</b>	The system consisting (wholly or mainly) of high voltage electric lines owned or operated by <b>Onshore Transmission Licensees</b> and used for the transmission of electricity from one <b>Power Station</b> to a substation or to another <b>Power Station</b> or between substations or to or from <b>Offshore Transmission Systems</b> or to or from any <b>External Interconnection</b> , and includes any <b>Plant</b> and <b>Apparatus</b> and meters owned or operated by any <b>Onshore Transmission Licensee</b> in connection with the transmission of electricity but does not include any <b>Remote Transmission Assets</b> .
<b>On-Site Generator Site</b>	A site which is determined by the <b>BSC Panel</b> to be a Trading Unit under the <b>BSC</b> by reason of having fulfilled the Class 1 or Class 2 requirements as such terms are used in the <b>BSC</b> .
<b>Operating Code or OC</b>	That portion of the Grid Code which is identified as the <b>Operating Code</b> .
<b>Operating Margin</b>	<b>Contingency Reserve</b> plus <b>Operating Reserve</b> .
<b>Operating Reserve</b>	The additional output from <b>Large Power Stations</b> or the reduction in <b>Demand</b> , which must be realisable in real-time operation to respond in order to contribute to containing and correcting any <b>System Frequency</b> fall to an acceptable level in the event of a loss of generation or a loss of import from an <b>External Interconnection</b> or mismatch between generation and <b>Demand</b> .
<b>Operation</b>	A scheduled or planned action relating to the operation of a <b>System</b> (including an <b>Embedded Power Station</b> ).

<b>Operational Data</b>	Data required under the <b>Operating Codes</b> and/or <b>Balancing Codes</b> .
<b>Operational Day</b>	The period from 0500 hours on one day to 0500 on the following day.
<b>Operation Diagrams</b>	Diagrams which are a schematic representation of the <b>HV Apparatus</b> and the connections to all external circuits at a <b>Connection Site</b> (and in the case of <b>OTSDUW, Transmission Interface Site</b> ), incorporating its numbering, nomenclature and labelling.
<b>Operational Effect</b>	Any effect on the operation of the relevant other <b>System</b> which causes the <b>National Electricity Transmission System</b> or the <b>System</b> of the other <b>User</b> or <b>Users</b> , 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.
<b>Operational Intertripping</b>	The automatic tripping of circuit-breakers to prevent abnormal system conditions occurring, such as over voltage, overload, <b>System</b> instability, etc. after the tripping of other circuit-breakers following power <b>System</b> fault(s) which includes <b>System to Generating Unit, System to CCGT Module, System to Power Park Module, System to DC Converter</b> and <b>System to Demand</b> intertripping schemes.
<b>Operational Notifications</b>	Any <b>Energisation Operational Notification, Interim Operational Notification, Final Operational Notification</b> or <b>Limited Operational Notification</b> issued from <b>NGET</b> to a <b>User</b> .
<b>Operational Planning</b>	Planning through various timescales the matching of generation output with forecast <b>National Electricity Transmission System Demand</b> together with a reserve of generation to provide a margin, taking into account outages of certain <b>Generating Units</b> , of parts of the <b>National Electricity Transmission System</b> and of parts of <b>User Systems</b> to which <b>Power Stations</b> and/or <b>Customers</b> are connected, carried out to achieve, so far as possible, the standards of security set out in <b>NGET's Transmission Licence, each Relevant Transmission Licensee's Transmission Licence</b> or <b>Electricity Distribution Licence</b> , as the case may be.
<b>Operational Planning Margin</b>	An operational planning margin set by <b>NGET</b> .
<b>Operational Planning Phase</b>	The period from 8 weeks to the end of the 5 <sup>th</sup> year ahead of real time operation.
<b>Operational Procedures</b>	Management instructions and procedures, both in support of the <b>Safety Rules</b> and for the local and remote operation of <b>Plant</b> and <b>Apparatus</b> , issued in connection with the actual operation of <b>Plant</b> and/or <b>Apparatus</b> at or from a <b>Connection Site</b> .
<b>Operational Switching</b>	Operation of <b>Plant</b> and/or <b>Apparatus</b> to the instruction of the relevant <b>Control Engineer</b> . For the avoidance of doubt, the operation of <b>Transmission Plant</b> and/or <b>Apparatus</b> forming part of the <b>National Electricity Transmission System</b> in England and Wales, will be to the instruction of <b>NGET</b> and in Scotland and <b>Offshore</b> will be to the instruction of the <b>Relevant Transmission Licensee</b> .
<b>Other Relevant Data</b>	The data listed in BC1.4.2(f) under the heading <b>Other Relevant Data</b> .

<b>Offshore Transmission System Development User Works or OTSDUW</b>	In relation to a particular <b>User</b> where the <b>OTSDUW Arrangements</b> apply, means those activities and/or works for the design, planning, consenting and/or construction and installation of the <b>Offshore Transmission System</b> to be undertaken by the <b>User</b> as identified in Part 2 of Appendix I of the relevant <b>Construction Agreement</b> .
<b>OTSDUW Arrangements</b>	The arrangements whereby certain aspects of the design, consenting, construction and/or installation of transmission assets are capable of being undertaken by a <b>User</b> prior to the transfer of those assets to a <b>Relevant Transmission Licensee</b> under an <b>Offshore Tender Process</b> .
<b>OTSDUW Data and Information</b>	The data and information to be provided by <b>Users</b> undertaking <b>OTSDUW</b> , to <b>NGET</b> in accordance with Appendix F of the <b>Planning Code</b> .
<b>OTSDUW DC Converter</b>	A <b>Transmission DC Converter</b> designed and/or constructed and/or installed by a <b>User</b> under the <b>OTSDUW Arrangements</b> .
<b>OTSDUW Development and Data Timetable</b>	The timetable for both the delivery of <b>OTSDUW Data and Information</b> and <b>OTSDUW Network Data and Information</b> as referred to in Appendix F of the <b>Planning Code</b> and the development of the scope of the <b>OTSDUW</b> .
<b>OTSDUW Network Data and Information</b>	The data and information to be provided by <b>NGET</b> to <b>Users</b> undertaking <b>OTSDUW</b> in accordance with Appendix F of the <b>Planning Code</b> .
<b>OTSDUW Plant and Apparatus</b>	<b>Plant</b> and <b>Apparatus</b> , including any <b>OTSDUW DC Converter</b> , designed by the <b>User</b> under the <b>OTSDUW Arrangements</b> .
<b>Offshore Transmission System User Assets or OTSUA</b>	<b>OTSDUW Plant and Apparatus</b> constructed and/or installed by a <b>User</b> under the <b>OTSDUW Arrangements</b> that once transferred to a <b>Relevant Transmission Licensee</b> under an <b>Offshore Tender Process</b> will form the <b>Offshore Transmission System</b> .
<b>OTSUA Transfer Time</b>	The time and date at which the <b>OTSUA</b> are transferred to a <b>Relevant Transmission Licensee</b> .
<b>Out of Synchronism</b>	The condition where a <b>System</b> or <b>Generating Unit</b> cannot meet the requirements to enable it to be <b>Synchronised</b> .
<b>Output Usable or OU</b>	<p>The (daily or weekly) forecast value (in MW), at the time of the (daily or weekly) peak demand, of the maximum level at which the <b>Genset</b> can export to the <b>Grid Entry Point</b>, or in the case of <b>Embedded Power Stations</b>, to the <b>User System Entry Point</b>. In addition, for a <b>Genset</b> powered by an <b>Intermittent Power Source</b> the forecast value is based upon the <b>Intermittent Power Source</b> being at a level which would enable the <b>Genset</b> to generate at <b>Registered Capacity</b>.</p> <p>For the purpose of OC2 only, the term <b>Output Usable</b> shall include the terms <b>Interconnector Export Capacity</b> and <b>Interconnector Import Capacity</b> where the term <b>Output Usable</b> is being applied to an <b>External Interconnection</b>.</p>
<b>Over-excitation Limiter</b>	Shall have the meaning ascribed to that term in <b>IEC 34-16-1:1991</b> [equivalent to <b>British Standard BS4999</b> Section 116.1 : 1992].

<b>Part 1 System Ancillary Services</b>	<b>Ancillary Services</b> which are required for <b>System</b> reasons and which must be provided by <b>Users</b> in accordance with the <b>Connection Conditions</b> . An exhaustive list of <b>Part 1 System Ancillary Services</b> is included in that part of CC.8.1 headed Part 1.
<b>Part 2 System Ancillary Services</b>	<b>Ancillary Services</b> which are required for <b>System</b> reasons and which must be provided by a <b>User</b> if the <b>User</b> has agreed to provide them under a <b>Bilateral Agreement</b> . A non-exhaustive list of <b>Part 2 System Ancillary Services</b> is included in that part of CC.8.1 headed Part 2.
<b>Part Load</b>	The condition of a <b>Genset</b> , or <b>Cascade Hydro Scheme</b> which is <b>Loaded</b> but is not running at its Maximum Export Limit.
<b>Permit for Work for proximity work</b>	In respect of <b>E&amp;W Transmission Systems</b> , a document issued by the <b>Relevant E&amp;W Transmission Licensee</b> or an <b>E&amp;W User</b> in accordance with its respective <b>Safety Rules</b> to enable work to be carried out in accordance with OC8A.8 and which provides for <b>Safety Precautions</b> to be applied and maintained. An example format of a <b>Relevant E&amp;W Transmission Licensee's</b> permit for work is attached as Appendix E to <b>OC8A</b> .  In respect of <b>Scottish Transmission Systems</b> , a document issued by a <b>Relevant Scottish Transmission Licensee</b> or a <b>Scottish User</b> in accordance with its respective <b>Safety Rules</b> to enable work to be carried out in accordance with OC8B.8 and which provides for <b>Safety Precautions</b> to be applied and maintained. Example formats of <b>Relevant Scottish Transmission Licensees'</b> permits for work are attached as Appendix E to <b>OC8B</b> .
<b>Partial Shutdown</b>	The same as a <b>Total Shutdown</b> except that all generation has ceased in a separate part of the <b>Total System</b> and there is no electricity supply from <b>External Interconnections</b> or other parts of the <b>Total System</b> to that part of the <b>Total System</b> and, therefore, that part of the <b>Total System</b> is shutdown, with the result that it is not possible for that part of the <b>Total System</b> to begin to function again without <b>NGET's</b> directions relating to a <b>Black Start</b> .
<b>Phase (Voltage) Unbalance</b>	The ratio (in percent) between the rms values of the negative sequence component and the positive sequence component of the voltage.
<b>Physical Notification</b>	Data that describes the <b>BM Participant's</b> best estimate of the expected input or output of <b>Active Power</b> of a <b>BM Unit</b> and/or (where relevant) <b>Generating Unit</b> , the accuracy of the <b>Physical Notification</b> being commensurate with <b>Good Industry Practice</b> .
<b>Planning Code or PC</b>	That portion of the Grid Code which is identified as the <b>Planning Code</b> .
<b>Planned Maintenance Outage</b>	An outage of <b>NGET</b> electronic data communication facilities as provided for in CC.6.5.8 and <b>NGET's</b> 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 <b>NGET</b> to the <b>User</b> 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 <b>NGET</b> to the <b>User</b> . It is anticipated that normally any planned outage would only last around one hour.
<b>Planned Outage</b>	An outage of a <b>Large Power Station</b> or of part of the <b>National Electricity Transmission System</b> , or of part of a <b>User System</b> , co-ordinated by <b>NGET</b> under <b>OC2</b> .

<b>Plant</b>	Fixed and movable items used in the generation and/or supply and/or transmission of electricity, other than <b>Apparatus</b> .
<b>Point of Common Coupling</b>	That point on the <b>National Electricity Transmission System</b> electrically nearest to the <b>User</b> installation at which either <b>Demands</b> or <b>Loads</b> are, or may be, connected.
<b>Point of Connection</b>	An electrical point of connection between the <b>National Electricity Transmission System</b> and a <b>User's System</b> .
<b>Point of Isolation</b>	The point on <b>Apparatus</b> (as defined in OC8A.1.6.2 and OC8B.1.7.2) at which <b>Isolation</b> is achieved.
<b>Post-Control Phase</b>	The period following real time operation.
<b>Power Factor</b>	The ratio of <b>Active Power</b> to <b>Apparent Power</b> .
<b>Power Island</b>	<b>Gensets</b> at an isolated <b>Power Station</b> , together with complementary local <b>Demand</b> . In Scotland a <b>Power Island</b> may include more than one <b>Power Station</b> .
<b>Power Park Module</b>	Any <b>Onshore Power Park Module</b> or <b>Offshore Power Park Module</b> .
<b>Power Park Module Availability Matrix</b>	The matrix described in Appendix 1 to BC1 under the heading <b>Power Park Module Availability Matrix</b> .
<b>Power Park Module Planning Matrix</b>	A matrix in the form set out in Appendix 4 of OC2 showing the combination of <b>Power Park Units</b> within a <b>Power Park Module</b> which would be expected to be running under normal conditions.
<b>Power Park Unit</b>	A <b>Generating Unit</b> within a <b>Power Park Module</b> .
<b>Power Station</b>	An installation comprising one or more <b>Generating Units</b> or <b>Power Park Modules</b> (even where sited separately) owned and/or controlled by the same <b>Generator</b> , which may reasonably be considered as being managed as one <b>Power Station</b> .
<b>Power System Stabiliser or PSS</b>	Equipment controlling the <b>Exciter</b> 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).
<b>Preface</b>	The preface to the Grid Code (which does not form part of the Grid Code and therefore is not binding).
<b>Preliminary Notice</b>	A notice in writing, sent by <b>NGET</b> both to all <b>Users</b> identified by it under OC12.4.2.1 and to the <b>Test Proposer</b> , notifying them of a proposed <b>System Test</b> .
<b>Preliminary Project Planning Data</b>	Data relating to a proposed <b>User Development</b> at the time the <b>User</b> applies for a <b>CUSC Contract</b> but before an offer is made and accepted.

<b>Primary Response</b>	The automatic increase in <b>Active Power</b> output of a <b>Genset</b> or, as the case may be, the decrease in <b>Active Power Demand</b> in response to a <b>System Frequency</b> fall. This increase in <b>Active Power</b> output or, as the case may be, the decrease in <b>Active Power Demand</b> must be in accordance with the provisions of the relevant <b>Ancillary Services Agreement</b> 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 <b>Frequency</b> fall on the basis set out in the <b>Ancillary Services Agreement</b> and fully available by the latter, and sustainable for at least a further 20 seconds. The interpretation of the <b>Primary Response</b> to a – 0.5 Hz frequency change is shown diagrammatically in Figure CC.A.3.2.
<b>Programming Phase</b>	The period between <b>Operational Planning Phase</b> and the <b>Control Phase</b> . It starts at the 8 weeks ahead stage and finishes at 17:00 on the day ahead of real time.
<b>Proposal Notice</b>	A notice submitted to <b>NGET</b> by a <b>User</b> which would like to undertake a <b>System Test</b> .
<b>Proposal Report</b>	A report submitted by the <b>Test Panel</b> which contains: <ul style="list-style-type: none"> <li>(a) proposals for carrying out a <b>System Test</b> (including the manner in which the <b>System Test</b> is to be monitored);</li> <li>(b) an allocation of costs (including un-anticipated costs) between the affected parties (the general principle being that the <b>Test Proposer</b> will bear the costs); and</li> <li>(c) such other matters as the <b>Test Panel</b> considers appropriate.</li> </ul> <p>The report may include requirements for indemnities to be given in respect of claims and losses arising from a <b>System Test</b>.</p>
<b>Protection</b>	The provisions for detecting abnormal conditions on a <b>System</b> and initiating fault clearance or actuating signals or indications.
<b>Protection Apparatus</b>	A group of one or more <b>Protection</b> relays and/or logic elements designated to perform a specified <b>Protection</b> function.
<b>Pumped Storage Generator</b>	A <b>Generator</b> which owns and/or operates any <b>Pumped Storage Plant</b> .
<b>Pumped Storage Plant</b>	The Dinorwig, Ffestiniog, Cruachan and Foyers <b>Power Stations</b> .
<b>Pumped Storage Unit</b>	A <b>Generating Unit</b> within a <b>Pumped Storage Plant</b> .
<b>Quiescent Physical Notification or QPN</b>	Data that describes the MW levels to be deducted from the <b>Physical Notification</b> of a <b>BM Unit</b> to determine a resultant operating level to which the <b>Dynamic Parameters</b> associated with that <b>BM Unit</b> apply, and the associated times for such MW levels. The MW level of the <b>QPN</b> must always be set to zero.
<b>Range CCGT Module</b>	A <b>CCGT Module</b> where there is a physical connection by way of a steam or hot gas main between that <b>CCGT Module</b> and another <b>CCGT Module</b> or other <b>CCGT Modules</b> , which connection contributes (if open) to efficient modular operation, and which physical connection can be varied by the operator.
<b>Rated Field Voltage</b>	Shall have the meaning ascribed to that term in <b>IEC 34-16-1:1991</b> [equivalent to <b>British Standard BS4999</b> Section 116.1 : 1992].

<b>Rated MW</b>	The “rating-plate” MW output of a <b>Generating Unit, Power Park Module</b> or <b>DC Converter</b> , being: <ul style="list-style-type: none"> <li>(a) that output up to which the <b>Generating Unit</b> was designed to operate (Calculated as specified in <b>British Standard BS EN 60034 – 1: 1995</b>); or</li> <li>(b) the nominal rating for the MW output of a <b>Power Park Module</b> being the maximum continuous electric output power which the <b>Power Park Module</b> was designed to achieve under normal operating conditions; or</li> <li>(c) the nominal rating for the MW import capacity and export capacity (if at a <b>DC Converter Station</b>) of a <b>DC Converter</b>.</li> </ul>
<b>Reactive Despatch Instruction</b>	Has the meaning set out in the <b>CUSC</b> .
<b>Reactive Despatch Network Restriction</b>	A restriction placed upon an <b>Embedded Generating Unit, Embedded Power Park Module</b> or <b>DC Converter</b> at an <b>Embedded DC Converter Station</b> by the <b>Network Operator</b> that prevents the <b>Generator</b> or <b>DC Converter Station</b> owner in question (as applicable) from complying with any <b>Reactive Despatch Instruction</b> with respect to that <b>Generating Unit, Power Park Module</b> or <b>DC Converter</b> at a <b>DC Converter Station</b> , whether to provide Mvars over the range referred to in CC 6.3.2 or otherwise.
<b>Reactive Energy</b>	The integral with respect to time of the <b>Reactive Power</b> .
<b>Reactive Power</b>	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: <p>1000 VAr = 1 kVAr</p> <p>1000 kVAr = 1 Mvar</p>
<b>Record of Inter-System Safety Precautions or RISSP</b>	A written record of inter-system <b>Safety Precautions</b> to be compiled in accordance with the provisions of <b>OC8</b> .



## Registered Capacity

- (a) In the case of a **Generating Unit** other than that forming part of a **CCGT Module** or **Power Park 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, or in MW to one decimal place).
- (b) In the case of a **CCGT Module** or **Power Park Module**, the normal full load capacity of the **CCGT Module** or **Power Park Module** (as the case may be) as declared by the **Generator**, being the **Active Power** declared by the **Generator** as being deliverable by the **CCGT Module** or **Power Park Module** at the **Grid Entry Point** (or in the case of an **Embedded CCGT Module** or **Power Park Module**, at the **User System Entry Point**), expressed in whole MW, or in MW to one decimal place.
- (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, or in MW to one decimal place. The maximum **Active Power** deliverable is the maximum amount deliverable simultaneously by the **Generating Units** and/or **CCGT Modules** and/or **Power Park Modules** less the MW consumed by the **Generating Units** and/or **CCGT Modules** in producing that **Active Power**.
- (d) In the case of a **DC Converter** at a **DC Converter Station**, the normal full load amount of **Active Power** transferable from a **DC Converter** at the **Onshore Grid Entry Point** (or in the case of an **Embedded DC Converter Station** at the **User System Entry Point**), as declared by the **DC Converter Station** owner, expressed in whole MW, or in MW to one decimal place.
- (e) In the case of a **DC Converter Station**, the maximum amount of **Active Power** transferable from a **DC Converter Station** at the **Onshore Grid Entry Point** (or in the case of an **Embedded DC Converter Station** at the **User System Entry Point**), as declared by the **DC Converter Station** owner, expressed in whole MW, or in MW to one decimal place.

## Registered Data

Those items of **Standard Planning Data** and **Detailed Planning Data** which upon connection become fixed (subject to any subsequent changes).

## Registered Import Capability

In the case of a **DC Converter Station** containing **DC Converters** connected to an **External System**, the maximum amount of **Active Power** transferable into a **DC Converter Station** at the **Onshore Grid Entry Point** (or in the case of an **Embedded DC Converter Station** at the **User System Entry Point**), as declared by the **DC Converter Station** owner, expressed in whole MW.

In the case of a **DC Converter** connected to an **External System** and in a **DC Converter Station**, the normal full load amount of **Active Power** transferable into a **DC Converter** at the **Onshore Grid Entry Point** (or in the case of an **Embedded DC Converter Station** at the **User System Entry Point**), as declared by the **DC Converter** owner, expressed in whole MW.

## Regulations

The Utilities Contracts Regulations 1996, as amended from time to time.

<b>Reheater Time Constant</b>	Determined at <b>Registered Capacity</b> , 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.
<b>Relevant E&amp;W Transmission Licensee</b>	As the context requires <b>NGET</b> and/or an <b>E&amp;W Offshore Transmission Licensee</b> .
<b>Relevant Scottish Transmission Licensee</b>	As the context requires <b>SPT</b> and/or <b>SHETL</b> and/or a <b>Scottish Offshore Transmission Licensee</b> .
<b>Relevant Transmission Licensee</b>	Means SP Transmission Ltd ( <b>SPT</b> ) in its <b>Transmission Area</b> or Scottish Hydro-Electric Transmission Ltd ( <b>SHETL</b> ) in its <b>Transmission Area</b> or any <b>Offshore Transmission Licensee</b> in its <b>Transmission Area</b> .
<b>Relevant Unit</b>	As defined in the <b>STC</b> , Schedule 3.
<b>Remote Transmission Assets</b>	Any <b>Plant</b> and <b>Apparatus</b> or meters owned by <b>NGET</b> which: <ul style="list-style-type: none"> <li>(a) are <b>Embedded</b> in a <b>User System</b> and which are not directly connected by <b>Plant</b> and/or <b>Apparatus</b> owned by <b>NGET</b> to a sub-station owned by <b>NGET</b>; and</li> <li>(b) are by agreement between <b>NGET</b> and such <b>User</b> operated under the direction and control of such <b>User</b>.</li> </ul>
<b>Requesting Safety Co-ordinator</b>	The <b>Safety Co-ordinator</b> requesting <b>Safety Precautions</b> .
<b>Responsible Engineer/ Operator</b>	A person nominated by a <b>User</b> to be responsible for <b>System</b> control.
<b>Responsible Manager</b>	A manager who has been duly authorised by a <b>User</b> or <b>NGET</b> to sign <b>Site Responsibility Schedules</b> on behalf of that <b>User</b> or <b>NGET</b> , as the case may be.  For <b>Connection Sites</b> in Scotland and <b>Offshore</b> a manager who has been duly authorised by the <b>Relevant Transmission Licensee</b> to sign <b>Site Responsibility Schedules</b> on behalf of that <b>Relevant Transmission Licensee</b> .
<b>Re-synchronisation</b>	The bringing of parts of the <b>System</b> which have become <b>Out of Synchronism</b> with any other <b>System</b> back into <b>Synchronism</b> , and like terms shall be construed accordingly.
<b>Safety Co-ordinator</b>	A person or persons nominated by a <b>Relevant E&amp;W Transmission Licensee</b> and each <b>E&amp;W User</b> in relation to <b>Connection Points</b> on an <b>E&amp;W Transmission System</b> and/or by the <b>Relevant Scottish Transmission Licensee</b> and each <b>Scottish User</b> in relation to <b>Connection Points</b> on a <b>Scottish Transmission System</b> to be responsible for the co-ordination of <b>Safety Precautions</b> at each <b>Connection Point</b> when work (which includes testing) is to be carried out on a <b>System</b> which necessitates the provision of <b>Safety Precautions</b> on <b>HV Apparatus</b> (as defined in OC8A.1.6.2 and OC8B.1.7.2), pursuant to <b>OC8</b> .
<b>Safety From The System</b>	That condition which safeguards persons when work is to be carried out on or near a <b>System</b> from the dangers which are inherent in the <b>System</b> .
<b>Safety Key</b>	A key unique at the <b>Location</b> capable of operating a lock which will cause an <b>Isolating Device</b> and/or <b>Earthing Device</b> to be <b>Locked</b> .

<b>Safety Log</b>	A chronological record of messages relating to safety co-ordination sent and received by each <b>Safety Co-ordinator</b> under <b>OC8</b> .
<b>Safety Precautions</b>	<b>Isolation</b> and/or <b>Earthing</b> .
<b>Safety Rules</b>	The rules of <b>NGET</b> (in England and Wales) and the <b>Relevant Transmission Licensee</b> (in Scotland or <b>Offshore</b> ) or a <b>User</b> that seek to ensure that persons working on <b>Plant</b> and/or <b>Apparatus</b> to which the rules apply are safeguarded from hazards arising from the <b>System</b> .
<b>Scottish Offshore Transmission System</b>	An <b>Offshore Transmission System</b> with an <b>Interface Point</b> in Scotland.
<b>Scottish Offshore Transmission Licensee</b>	A person who owns or operates a <b>Scottish Offshore Transmission System</b> pursuant to a <b>Transmission Licence</b> .
<b>Scottish Transmission System</b>	Collectively <b>SPT's Transmission System</b> and <b>SHETL's Transmission System</b> and any <b>Scottish Offshore Transmission Systems</b> .
<b>Scottish User</b>	A <b>User</b> in Scotland or any <b>Offshore User</b> who owns or operates <b>Plant</b> and/or <b>Apparatus</b> connected to a <b>Scottish Offshore Transmission System</b>
<b>Secondary Response</b>	The automatic increase in <b>Active Power</b> output of a <b>Genset</b> or, as the case may be, the decrease in <b>Active Power Demand</b> in response to a <b>System Frequency</b> fall. This increase in <b>Active Power</b> output or, as the case may be, the decrease in <b>Active Power Demand</b> must be in accordance with the provisions of the relevant <b>Ancillary Services Agreement</b> which will provide that it will be fully available by 30 seconds from the time of the start of the <b>Frequency</b> fall and be sustainable for at least a further 30 minutes. The interpretation of the <b>Secondary Response</b> to a -0.5 Hz frequency change is shown diagrammatically in Figure CC.A.3.2.
<b>Secretary of State</b>	Has the same meaning as in the <b>Act</b> .
<b>Secured Event</b>	Has the meaning set out in the <b>Security and Quality of Supply Standard</b> .
<b>Security and Quality of Supply Standard</b>	The version of the document entitled 'Security and Quality of Supply Standard' established pursuant to the <b>Transmission Licence</b> in force at the time of entering into the relevant <b>Bilateral Agreement</b> .
<b>Setpoint Voltage</b>	The value of voltage at the <b>Grid Entry Point</b> , or <b>User System Entry Point</b> if <b>Embedded</b> , on the automatic control system steady state operating characteristic, as a percentage of the nominal voltage, at which the transfer of <b>Reactive Power</b> between a <b>Power Park Module</b> , <b>DC Converter</b> or <b>Non-Synchronous Generating Unit</b> and the <b>Transmission System</b> , or <b>Network Operator's</b> system if <b>Embedded</b> , is zero.
<b>Settlement Period</b>	A period of 30 minutes ending on the hour and half-hour in each hour during a day.

<b>Seven Year Statement</b>	A statement, prepared by <b>NGET</b> in accordance with the terms of <b>NGET's Transmission Licence</b> , showing for each of the seven succeeding <b>Financial Years</b> , the opportunities available for connecting to and using the <b>National Electricity Transmission System</b> and indicating those parts of the <b>National Electricity Transmission System</b> most suited to new connections and transport of further quantities of electricity.
<b>SF<sub>6</sub> Gas Zone</b>	A segregated zone surrounding electrical conductors within a casing containing SF <sub>6</sub> gas.
<b>SHETL</b>	Scottish Hydro-Electric Transmission Limited
<b>Shutdown</b>	The condition of a <b>Generating Unit</b> where the generator rotor is at rest or on barring.
<b>Significant Code Review</b>	Means a review of one or more matters which the <b>Authority</b> considers is likely to: <ul style="list-style-type: none"> <li>(a) relate to the <b>Grid Code</b> (either on its own or in conjunction with any other industry codes); and</li> <li>(b) be of particular significance in relation to its principal objective and/or general duties (under section 3A of the <b>Act</b>), statutory functions and/or relevant obligations arising under EU law, and concerning which the <b>Authority</b> has issued a notice to <b>NGET</b> (among others, as appropriate) stating: <ul style="list-style-type: none"> <li>(i) that the review will constitute a <b>Significant Code Review</b>;</li> <li>(ii) the start date of the <b>Significant Code Review</b>; and</li> <li>(iii) the matters that will fall within the scope of the review;</li> </ul> </li> </ul>
<b>Significant Code Review Phase</b>	Means the period commencing on the start date of a <b>Significant Code Review</b> as stated in the notice issued by the <b>Authority</b> , and ending either: <ul style="list-style-type: none"> <li>(a) on the date on which the <b>Authority</b> issues a statement that no directions will be issued in relation to the <b>Grid Code</b>; or</li> <li>(b) if no statement is made under (a), and the <b>Authority</b> has directed <b>NGET</b> to raise <b>GC Modification Proposal</b> associated with the <b>Significant Code Review</b>, on the date on which <b>NGET</b> has raise such a <b>GC Modification Proposal</b>; or</li> <li>(c) immediately, if neither a statement nor directions are issued by the <b>Authority</b> within (and including) twenty eight (28) days from the <b>Authority's</b> publication of its <b>Significant Code Review</b> conclusions.</li> </ul>
<b>Significant Incident</b>	An <b>Event</b> which either: <ul style="list-style-type: none"> <li>(a) was notified by a <b>User</b> to <b>NGET</b> under <b>OC7</b>, and which <b>NGET</b> considers has had or may have had a significant effect on the <b>National Electricity Transmission System</b>, and <b>NGET</b> requires the <b>User</b> to report that <b>Event</b> in writing in accordance with <b>OC10</b> and notifies the <b>User</b> accordingly; or</li> <li>(b) was notified by <b>NGET</b> to a <b>User</b> under <b>OC7</b>, and which that <b>User</b> considers has had or may have had a significant effect on that <b>User's System</b>, and that <b>User</b> requires <b>NGET</b> to report that <b>Event</b> in writing in accordance with the provisions of <b>OC10</b> and notifies <b>NGET</b> accordingly.</li> </ul>

<b>Simultaneous Tap Change</b>	A tap change implemented on the generator step-up transformers of <b>Synchronised Gensets</b> , effected by <b>Generators</b> in response to an instruction from <b>NGET</b> issued simultaneously to the relevant <b>Power Stations</b> . The instruction, preceded by advance notice, must be effected as soon as possible, and in any event within one minute of receipt from <b>NGET</b> of the instruction.
<b>Single Line Diagram</b>	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 <b>Large Power Stations</b> are connected, and the points at which <b>Demand</b> is supplied.
<b>Single Point of Connection</b>	A single <b>Point of Connection</b> , with no interconnection through the <b>User's System</b> to another <b>Point of Connection</b> .
<b>Site Common Drawings</b>	Drawings prepared for each <b>Connection Site</b> (and in the case of <b>OTSDUW, Transmission Interface Site</b> ) which incorporate <b>Connection Site</b> (and in the case of <b>OTSDUW, Transmission Interface Site</b> ) layout drawings, electrical layout drawings, common protection/ control drawings and common services drawings.
<b>Site Responsibility Schedule</b>	A schedule containing the information and prepared on the basis of the provisions set out in Appendix 1 of the <b>CC</b> .
<b>Slope</b>	The ratio of the steady state change in voltage, as a percentage of the nominal voltage, to the steady state change in <b>Reactive Power</b> output, in per unit of <b>Reactive Power</b> capability. For the avoidance of doubt, the value indicates the percentage voltage reduction that will result in a 1 per unit increase in <b>Reactive Power</b> generation.

<b>Small Power Station</b>	<p>A <b>Power Station</b> which is</p> <p>(a) directly connected to:</p> <ul style="list-style-type: none"> <li>(i) <b>NGET's Transmission System</b> where such <b>Power Station</b> has a <b>Registered Capacity</b> of less than 50MW; or</li> <li>(ii) <b>SPT's Transmission System</b> where such <b>Power Station</b> has a <b>Registered Capacity</b> of less than 30MW; or</li> <li>(iii) <b>SHETL's Transmission System</b> where such a <b>Power Station</b> has a <b>Registered Capacity</b> of less than 10 MW; or</li> <li>(iv) an <b>Offshore Transmission System</b> where such <b>Power Station</b> has a <b>Registered Capacity</b> of less than 10MW;</li> </ul> <p>or,</p> <p>(b) <b>Embedded</b> within a <b>User System</b> (or part thereof) where such <b>User System</b> (or part thereof) is connected under normal operating conditions to:</p> <ul style="list-style-type: none"> <li>(i) <b>NGET's Transmission System</b> and such <b>Power Station</b> has a <b>Registered Capacity</b> of less than 50MW; or</li> <li>(ii) <b>SPT's Transmission System</b> and such <b>Power Station</b> has a <b>Registered Capacity</b> of less than 30MW; or</li> <li>(iii) <b>SHETL's Transmission System</b> and such <b>Power Station</b> has a <b>Registered Capacity</b> of less than 10MW;</li> </ul> <p>or,</p> <p>(c) <b>Embedded</b> within a <b>User System</b> (or part thereof) where the <b>User System</b> (or part thereof) is not connected to the <b>National Electricity Transmission System</b>, although such <b>Power Station</b> is in:</p> <ul style="list-style-type: none"> <li>(i) <b>NGET's Transmission Area</b> and such <b>Power Station</b> has a <b>Registered Capacity</b> of less than 50MW; or</li> <li>(ii) <b>SPT's Transmission Area</b> and such <b>Power Station</b> has a <b>Registered Capacity</b> of less than 30MW; or</li> <li>(iii) <b>SHETL's Transmission Area</b> and such <b>Power Station</b> has a <b>Registered Capacity</b> of less than 10MW;</li> </ul>
<b>Speeder Motor Setting Range</b>	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 <b>Generating Unit</b> terminals are on open circuit.
<b>SPT</b>	SP Transmission Limited
<b>Standard Planning Data</b>	The general data required by <b>NGET</b> under the <b>PC</b> . It is generally also the data which <b>NGET</b> requires from a new <b>User</b> in an application for a <b>CUSC Contract</b> , as reflected in the <b>PC</b> .
<b>Start Time</b>	The time named as such in an instruction issued by <b>NGET</b> pursuant to the <b>BC</b> .
<b>Start-Up</b>	The action of bringing a <b>Generating Unit</b> from <b>Shutdown</b> to <b>Synchronous Speed</b> .
<b>Statement of Readiness</b>	Has the meaning set out in the <b>Bilateral Agreement</b> and/or <b>Construction Agreement</b> .

<b>Station Board</b>	A switchboard through which electrical power is supplied to the <b>Auxiliaries</b> of a <b>Power Station</b> , and which is supplied by a <b>Station Transformer</b> . It may be interconnected with a <b>Unit Board</b> .
<b>Station Transformer</b>	A transformer supplying electrical power to the <b>Auxiliaries</b> of <ul style="list-style-type: none"> <li>(a) a <b>Power Station</b>, which is not directly connected to the <b>Generating Unit</b> terminals (typical voltage ratios being 132/11kV or 275/11kV),or</li> <li>(b) a <b>DC Converter Station</b>.</li> </ul>
<b>STC Committee</b>	The committee established under the <b>STC</b> .
<b>Steam Unit</b>	A <b>Generating Unit</b> whose prime mover converts the heat-energy in steam to mechanical energy.
<b>Subtransmission System</b>	The part of a <b>User's System</b> which operates at a single transformation below the voltage of the relevant <b>Transmission System</b> .
<b>Supergrid Voltage</b>	Any voltage greater than 200kV.
<b>Supplier</b>	<ul style="list-style-type: none"> <li>(a) A person supplying electricity under an <b>Electricity Supply Licence</b>; or</li> <li>(b) A person supplying electricity under exemption under the <b>Act</b>;</li> </ul> <p>in each case acting in its capacity as a supplier of electricity to <b>Customers</b> in <b>Great Britain</b>.</p>
<b>Surplus</b>	<p>A MW figure relating to a <b>System Zone</b> equal to the total <b>Output Usable</b> in the <b>System Zone</b>:</p> <ul style="list-style-type: none"> <li>(a) minus the forecast of <b>Active Power Demand</b> in the <b>System Zone</b>, and</li> <li>(b) minus the export limit in the case of an export limited <b>System Zone</b>,</li> </ul> <p style="padding-left: 40px;">or</p> <p style="padding-left: 40px;">plus the import limit in the case of an import limited <b>System Zone</b>, and</p> <ul style="list-style-type: none"> <li>(c) (only in the case of a <b>System Zone</b> comprising the <b>National Electricity Transmission System</b>) minus the <b>Operational Planning Margin</b>.</li> </ul> <p>For the avoidance of doubt, a <b>Surplus</b> of more than zero in an export limited <b>System Zone</b> indicates an excess of generation in that <b>System Zone</b>; and a <b>Surplus</b> of less than zero in an import limited <b>System Zone</b> indicates insufficient generation in that <b>System Zone</b>.</p>
<b>Synchronised</b>	<ul style="list-style-type: none"> <li>(a) The condition where an incoming <b>Generating Unit</b> or <b>Power Park Module</b> or <b>DC Converter</b> or <b>System</b> is connected to the busbars of another <b>System</b> so that the <b>Frequencies</b> and phase relationships of that <b>Generating Unit</b>, <b>Power Park Module</b>, <b>DC Converter</b> or <b>System</b>, as the case may be, and the <b>System</b> to which it is connected are identical, like terms shall be construed accordingly e.g. "<b>Synchronism</b>".</li> <li>(b) The condition where an importing <b>BM Unit</b> is consuming electricity.</li> </ul>

<b>Synchronising Generation</b>	The amount of MW (in whole MW) produced at the moment of synchronising.
<b>Synchronising Group</b>	A group of two or more <b>Gensets</b> ) which require a minimum time interval between their <b>Synchronising</b> or <b>De-Synchronising</b> times.
<b>Synchronous Compensation</b>	The operation of rotating synchronous <b>Apparatus</b> for the specific purpose of either the generation or absorption of <b>Reactive Power</b> .
<b>Synchronous Generating Unit</b>	Any <b>Onshore Synchronous Generating Unit</b> or <b>Offshore Synchronous Generating Unit</b> .
<b>Synchronous Speed</b>	That speed required by a <b>Generating Unit</b> to enable it to be <b>Synchronised</b> to a <b>System</b> .
<b>System</b>	Any <b>User System</b> and/or the <b>National Electricity Transmission System</b> , as the case may be.
<b>System Ancillary Services</b>	Collectively <b>Part 1 System Ancillary Services</b> and <b>Part 2 System Ancillary Services</b> .
<b>System Constraint</b>	A limitation on the use of a <b>System</b> due to lack of transmission capacity or other <b>System</b> conditions.
<b>System Constrained Capacity</b>	That portion of <b>Registered Capacity</b> or <b>Registered Import Capacity</b> not available due to a <b>System Constraint</b> .
<b>System Constraint Group</b>	A part of the <b>National Electricity Transmission System</b> which, because of <b>System Constraints</b> , is subject to limits of <b>Active Power</b> which can flow into or out of (as the case may be) that part.
<b>System Fault Dependability Index or Dp</b>	<p>A measure of the ability of <b>Protection</b> to initiate successful tripping of circuit-breakers which are associated with a faulty item of <b>Apparatus</b>. It is calculated using the formula:</p> $Dp = 1 - F_1/A$ <p>Where:</p> <p>A = Total number of <b>System</b> faults</p> <p>F<sub>1</sub> = Number of <b>System</b> faults where there was a failure to trip a circuit-breaker.</p>
<b>System Margin</b>	<p>The margin in any period between</p> <p>(a) the sum of Maximum Export Limits and</p> <p>(b) forecast <b>Demand</b> and the <b>Operating Margin</b>,</p> <p>for that period.</p>
<b>System Negative Reserve Active Power Margin or System NRAPM</b>	That margin of <b>Active Power</b> sufficient to allow the largest loss of <b>Load</b> at any time.
<b>System Operator - Transmission Owner Code or STC</b>	Has the meaning set out in <b>NGET's Transmission Licence</b>



<b>System Telephony</b>	An alternative method by which a <b>User's Responsible Engineer/Operator</b> and <b>NGET Control Engineer(s)</b> speak to one and another for the purposes of control of the <b>Total System</b> in both normal operating conditions and where practicable, emergency operating conditions.
<b>System Tests</b>	Tests which involve simulating conditions, or the controlled application of irregular, unusual or extreme conditions, on the <b>Total System</b> , or any part of the <b>Total System</b> , but which do not include commissioning or recommissioning tests or any other tests of a minor nature.
<b>System to Demand Intertrip Scheme</b>	An intertrip scheme which disconnects <b>Demand</b> when a <b>System</b> fault has arisen to prevent abnormal conditions occurring on the <b>System</b> .
<b>System to Generator Operational Intertripping</b>	A <b>Balancing Service</b> involving the initiation by a <b>System to Generator Operational Intertripping Scheme</b> of automatic tripping of the <b>User's</b> circuit breaker(s), or <b>Relevant Transmission Licensee's</b> circuit breaker(s) where agreed by <b>NGET</b> , the <b>User</b> and the <b>Relevant Transmission Licensee</b> , resulting in the tripping of <b>BM Unit(s)</b> or (where relevant) <b>Generating Unit(s)</b> comprised in a <b>BM Unit</b> to prevent abnormal system conditions occurring, such as over voltage, overload, <b>System</b> instability, etc, after the tripping of other circuit-breakers following power <b>System</b> fault(s).
<b>System to Generator Operational Intertripping Scheme</b>	A System to Generating Unit or System to CCGT Module or System to Power Park Module Intertripping Scheme forming a condition of connection and specified in Appendix F3 of the relevant Bilateral Agreement, being either a Category 1 Intertripping Scheme, Category 2 Intertripping Scheme, Category 3 Intertripping Scheme or Category 4 Intertripping Scheme.
<b>System Zone</b>	A region of the <b>National Electricity Transmission System</b> within a described boundary or the whole of the <b>National Electricity Transmission System</b> , as further provided for in OC2.2.4, and the term " <b>Zonal</b> " will be construed accordingly.
<b>Target Frequency</b>	That <b>Frequency</b> determined by <b>NGET</b> , in its reasonable opinion, as the desired operating <b>Frequency</b> of the <b>Total System</b> . This will normally be 50.00Hz plus or minus 0.05Hz, except in exceptional circumstances as determined by <b>NGET</b> , 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 <b>System</b> during disputes affecting fuel supplies.
<b>Technical Specification</b>	In relation to <b>Plant</b> and/or <b>Apparatus</b> , <ul style="list-style-type: none"> <li>(a) the relevant <b>European Specification</b>; or</li> <li>(b) if there is no relevant <b>European Specification</b>, other relevant standards which are in common use in the European Community.</li> </ul>
<b>Test Co-ordinator</b>	A person who co-ordinates <b>System Tests</b> .
<b>Test Panel</b>	A panel, whose composition is detailed in <b>OC12</b> , which is responsible, inter alia, for considering a proposed <b>System Test</b> , and submitting a <b>Proposal Report</b> and a <b>Test Programme</b> .

<b>Test Programme</b>	A programme submitted by the <b>Test Panel</b> to <b>NGET</b> , the <b>Test Proposer</b> , and each <b>User</b> identified by <b>NGET</b> 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 <b>System Test</b> (including those responsible for the site safety) and such other matters as the <b>Test Panel</b> deems appropriate.
<b>Test Proposer</b>	The person who submits a <b>Proposal Notice</b> .
<b>Total Shutdown</b>	The situation existing when all generation has ceased and there is no electricity supply from <b>External Interconnections</b> and, therefore, the <b>Total System</b> has shutdown with the result that it is not possible for the <b>Total System</b> to begin to function again without <b>NGET's</b> directions relating to a <b>Black Start</b> .
<b>Total System</b>	The <b>National Electricity Transmission System</b> and all <b>User Systems</b> in the <b>National Electricity Transmission System Operator Area</b> .
<b>Trading Point</b>	A commercial and, where so specified in the Grid Code, an operational interface between a <b>User</b> and <b>NGET</b> , which a <b>User</b> has notified to <b>NGET</b> .
<b>Transfer Date</b>	Such date as may be appointed by the <b>Secretary of State</b> by order under section 65 of the <b>Act</b> .
<b>Transmission</b>	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 <b>National Electricity Transmission System</b> , and not of or with the <b>User System</b> .
<b>Transmission Area</b>	Has the meaning set out in the <b>Transmission Licence</b> of a <b>Transmission Licensee</b> .
<b>Transmission DC Converter</b>	Any <b>Transmission Licensee Apparatus</b> used to convert alternating current electricity to direct current electricity, or vice versa. A <b>Transmission Network DC Converter</b> is a standalone operative configuration at a single site comprising one or more converter bridges, together with one or more converter transformers, converter control equipment, essential protective and switching devices and auxiliaries, if any, used for conversion.
<b>Transmission Entry Capacity</b>	Has the meaning set out in the <b>CUSC</b> .
<b>Transmission Interface Circuit</b>	In <b>NGET's Transmission Area</b> , a <b>Transmission</b> circuit which connects a <b>System</b> operating at a voltage above 132kV to a <b>System</b> operating at a voltage of 132kV or below  In <b>SHETL's Transmission Area</b> and <b>SPT's Transmission Area</b> , a <b>Transmission</b> circuit which connects a <b>System</b> operating at a voltage of 132kV or above to a <b>System</b> operating at a voltage below 132kV.
<b>Transmission Interface Point</b>	means the electrical point of connection between the <b>Offshore Transmission System</b> and an <b>Onshore Transmission System</b> .
<b>Transmission Interface Site</b>	the site at which the <b>Transmission Interface Point</b> is located.
<b>Transmission Licence</b>	A licence granted under Section 6(1)(b) of the <b>Act</b> .

<b>Transmission Licensee</b>	Any <b>Onshore Transmission Licensee</b> or <b>Offshore Transmission Licensee</b>
<b>Transmission Site</b>	<p>In England and Wales, means a site owned (or occupied pursuant to a lease, licence or other agreement) by <b>NGET</b> in which there is a <b>Connection Point</b>. For the avoidance of doubt, a site owned by a <b>User</b> but occupied by <b>NGET</b> as aforesaid, is a <b>Transmission Site</b>.</p> <p>In Scotland and <b>Offshore</b>, means a site owned (or occupied pursuant to a lease, licence or other agreement) by a <b>Relevant Transmission Licensee</b> in which there is a <b>Connection Point</b>. For the avoidance of doubt, a site owned by a <b>User</b> but occupied by the <b>Relevant Transmission Licensee</b> as aforesaid, is a <b>Transmission Site</b>.</p>
<b>Transmission System</b>	Has the same meaning as the term "licensee's transmission system" in the <b>Transmission Licence</b> of a <b>Transmission Licensee</b> .
<b>Turbine Time Constant</b>	Determined at <b>Registered Capacity</b> , 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.
<b>Unbalanced Load</b>	The situation where the <b>Load</b> on each phase is not equal.
<b>Under-excitation Limiter</b>	Shall have the meaning ascribed to that term in <b>IEC 34-16-1:1991</b> [equivalent to <b>British Standard BS4999</b> Section 116.1 : 1992].
<b>Under Frequency Relay</b>	An electrical measuring relay intended to operate when its characteristic quantity ( <b>Frequency</b> ) reaches the relay settings by decrease in <b>Frequency</b> .
<b>Unit Board</b>	A switchboard through which electrical power is supplied to the <b>Auxiliaries</b> of a <b>Generating Unit</b> and which is supplied by a <b>Unit Transformer</b> . It may be interconnected with a <b>Station Board</b> .
<b>Unit Transformer</b>	A transformer directly connected to a <b>Generating Unit's</b> terminals, and which supplies power to the <b>Auxiliaries</b> of a <b>Generating Unit</b> . Typical voltage ratios are 23/11kV and 15/6.6Kv.
<b>Unit Load Controller Response Time Constant</b>	The time constant, expressed in units of seconds, of the power output increase which occurs in the <b>Secondary Response</b> timescale in response to a step change in <b>System Frequency</b> .
<b>Unresolved Issues</b>	Any relevant Grid Code provisions or <b>Bilateral Agreement</b> requirements identified by <b>NGET</b> with which the relevant <b>User</b> has not demonstrated compliance to <b>NGET's</b> reasonable satisfaction at the date of issue of the <b>Interim Operational Notification</b> and/or <b>Limited Operational Notification</b> and which are detailed in such <b>Interim Operational Notification</b> and/or <b>Limited Operational Notification</b> .
<b>User</b>	A term utilised in various sections of the Grid Code to refer to the persons using the <b>National Electricity Transmission System</b> , as more particularly identified in each section of the Grid Code concerned. In the <b>Preface</b> and the <b>General Conditions</b> the term means any person to whom the Grid Code applies.

<b>User Data File Structure</b>	The file structure given at <b>DRC 18</b> which will be specified by <b>NGET</b> which a <b>Generator</b> or <b>DC Converter Station</b> owner must use for the purposes of <b>CP</b> to submit <b>DRC</b> data Schedules and information demonstrating compliance with the Grid Code and, where applicable, with the <b>CUSC Contract(s)</b> , unless otherwise agreed by <b>NGET</b> .
<b>User Development</b>	In the <b>PC</b> means either <b>User's Plant</b> and/or <b>Apparatus</b> to be connected to the <b>National Electricity Transmission System</b> , or a <b>Modification</b> relating to a <b>User's Plant</b> and/or <b>Apparatus</b> already connected to the <b>National Electricity Transmission System</b> , or a proposed new connection or <b>Modification</b> to the connection within the <b>User System</b> .
<b>User Self Certification of Compliance</b>	A certificate, in the form attached at CP.A.2.(1) completed by a Generator or DC Converter Station owner to which the Compliance Statement is attached which confirms that such Plant and Apparatus complies with the relevant Grid Code provisions and where appropriate, with the CUSC Contract(s), as identified in the Compliance Statement and, if appropriate, identifies any Unresolved Issues and/or any exceptions to such compliance and details the derogation(s) granted in respect of such exceptions.
<b>User Site</b>	<p>In England and Wales, a site owned (or occupied pursuant to a lease, licence or other agreement) by a <b>User</b> in which there is a <b>Connection Point</b>. For the avoidance of doubt, a site owned by <b>NGET</b> but occupied by a <b>User</b> as aforesaid, is a <b>User Site</b>.</p> <p>In Scotland and <b>Offshore</b>, a site owned (or occupied pursuant to a lease, licence or other agreement) by a <b>User</b> in which there is a <b>Connection Point</b>. For the avoidance of doubt, a site owned by a <b>Relevant Transmission Licensee</b> but occupied by a <b>User</b> as aforesaid, is a <b>User Site</b>.</p>
<b>User System</b>	<p>Any system owned or operated by a <b>User</b> comprising:-</p> <ul style="list-style-type: none"> <li>(a) <b>Generating Units</b>; and/or</li> <li>(b) Systems consisting (wholly or mainly) of electric lines used for the distribution of electricity from <b>Grid Supply Points</b> or <b>Generating Units</b> or other entry points to the point of delivery to <b>Customers</b>, or other <b>Users</b>;</li> </ul> <p>and <b>Plant</b> and/or <b>Apparatus</b> connecting:-</p> <ul style="list-style-type: none"> <li>(c) The system as described above; or</li> <li>(d) <b>Non-Embedded Customers</b> equipment;</li> </ul> <p>to the <b>National Electricity Transmission System</b> or to the relevant other <b>User System</b>, as the case may be.</p> <p>The <b>User System</b> includes any <b>Remote Transmission Assets</b> operated by such <b>User</b> or other person and any <b>Plant</b> and/or <b>Apparatus</b> and meters owned or operated by the <b>User</b> or other person in connection with the distribution of electricity but does not include any part of the <b>National Electricity Transmission System</b>.</p>
<b>User System Entry Point</b>	A point at which a <b>Generating Unit</b> , a <b>CCGT Module</b> or a <b>CCGT Unit</b> or a <b>Power Park Module</b> or a <b>DC Converter</b> , as the case may be, which is <b>Embedded</b> connects to the <b>User System</b> .
<b>Water Time Constant</b>	Bears the meaning ascribed to the term "Water inertia time" in <b>IEC308</b> .

**Weekly ACS Conditions** 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**.

**Zonal System Security Requirements** 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**.

A number of the terms listed above are defined in other documents, such as the **Balancing and Settlement Code** and the **Transmission Licence**. Appendix 1 sets out the current definitions from the other documents of those terms so used in the Grid Code and defined in other documents for ease of reference, but does not form part of the Grid Code.

## GD.2 Construction of References

### GD.2.1 In the Grid Code:

- (i) a table of contents, a Preface, a Revision section, headings, and the Appendix to this **Glossary and Definitions** are inserted for convenience only and shall be ignored in construing the Grid Code;
- (ii) unless the context otherwise requires, all references to a particular paragraph, sub-paragraph, Appendix or Schedule shall be a reference to that paragraph, sub-paragraph Appendix or Schedule in or to that part of the Grid Code in which the reference is made;
- (iii) unless the context otherwise requires, the singular shall include the plural and vice versa, references to any gender shall include all other genders and references to persons shall include any individual, body corporate, corporation, joint venture, trust, unincorporated association, organisation, firm or partnership and any other entity, in each case whether or not having a separate legal personality;
- (iv) references to the words "include" or "including" are to be construed without limitation to the generality of the preceding words;
- (v) unless there is something in the subject matter or the context which is inconsistent therewith, any reference to an Act of Parliament or any Section of or Schedule to, or other provision of an Act of Parliament shall be construed at the particular time, as including a reference to any modification, extension or re-enactment thereof then in force and to all instruments, orders and regulations then in force and made under or deriving validity from the relevant Act of Parliament;
- (vi) where the **Glossary and Definitions** refers to any word or term which is more particularly defined in a part of the Grid Code, the definition in that part of the Grid Code will prevail (unless otherwise stated) over the definition in the **Glossary & Definitions** in the event of any inconsistency;
- (vii) a cross-reference to another document or part of the Grid Code shall not of itself impose any additional or further or co-existent obligation or confer any additional or further or co-existent right in the part of the text where such cross-reference is contained;
- (viii) nothing in the Grid Code is intended to or shall derogate from **NGET's** statutory or licence obligations;
- (ix) a "holding company" means, in relation to any person, a holding company of such person 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 latter section were in force at such date;
- (x) a "subsidiary" means, in relation to any person, a subsidiary of such person 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 latter section were in force at such date;
- (xi) references to time are to London time; and
- (xii) (a) Save where (b) below applies, where there is a reference to an item of data being expressed in a whole number of MW, fractions of a MW below 0.5 shall be rounded down to the nearest whole MW and fractions of a MW of 0.5 and above shall be rounded up to the nearest whole MW;  
  
(b) In the case of the definition of **Registered Capacity**, fractions of a MW below 0.05 shall be rounded down to one decimal place and fractions of a MW of 0.05 and above shall be rounded up to one decimal place.

**< END OF GLOSSARY & DEFINITIONS >**

# GENERAL CONDITIONS

(GC)

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GC.1 INTRODUCTION

GC.1.1 The **General Conditions** contain provisions which are of general application to all provisions of the **Grid Code**. Their objective is to ensure, to the extent possible, that the various sections of the **Grid Code** work together and work in practice for the benefit of all **Users**.

GC.2 SCOPE

GC.2.1 The **General Conditions** apply to all **Users** (including, for the avoidance of doubt, **NGET**).

GC.3 UNFORESEEN CIRCUMSTANCES

GC.3.1 If circumstances arise which the provisions of the **Grid Code** have not foreseen, **NGET** shall, to the extent reasonably practicable in the circumstances, consult promptly and in good faith all affected **Users** in an effort to reach agreement as to what should be done. If agreement between **NGET** and those **Users** as to what should be done cannot be reached in the time available, **NGET** shall determine what is to be done. Wherever **NGET** makes a determination, it shall do so having regard, wherever possible, to the views expressed by **Users** and, in any event, to what is reasonable in all the circumstances. Each **User** shall comply with all instructions given to it by **NGET** following such a determination provided that the instructions are consistent with the then current technical parameters of the particular **User's System** registered under the **Grid Code**. **NGET** shall promptly refer all such unforeseen circumstances and any such determination to the Panel for consideration in accordance with GC.4.2(e).

GC.4 THE GRID CODE REVIEW PANEL

GC.4.1 **NGET** shall establish and maintain the **Panel**, which shall be a standing body to carry out the functions referred to in paragraph GC.4.2.

GC.4.2 The **Panel** shall:

- (a) keep the **Grid Code** and its working under review;
- (b) review all suggestions for **GC Modification Proposals** which the **Authority** or any **User** or any **Relevant Transmission Licensee** (in respect of PC.3.4, PC.3.5, PC.6.2, PC Appendix A and C, CC.6.1, CC.6.2, CC.6.3, OC2.3.2, OC8 and GC.11, OC7.6, OC9.4 and OC9.5) may wish to submit to **NGET** for consideration by the **Panel** from time to time;
- (c) publish recommendations as to **GC Modification Proposals** that **NGET** or the **Panel** feels are necessary or desirable and the reasons for the recommendations;
- (d) issue guidance in relation to the **Grid Code** and its implementation, performance and interpretation when asked to do so by any **User**; consider what changes are necessary to the **Grid Code** arising out of any unforeseen circumstances referred to it by **NGET** under GC.3;
- (e) consider and identify changes to the **Grid Code** to remove any unnecessary differences in the treatment of issues in Scotland from their treatment in England and Wales; and
- (f) consider any changes to the **Code Administration Code of Practice** that the **Code Administrator** considers appropriate to raise.

GC.4.3 The **Panel** shall consist of:

- (a) a Chairman and up to 4 members appointed by **NGET**;
- (b) a person appointed by the **Authority**; and
- (c) the following members:
  - (i) 3 persons representing those **Generators** each having **Large Power Stations** with a total **Registered Capacity** in excess of 3 GW;
  - (ii) a person representing those **Generators** each having **Large Power Stations** with



- a total **Registered Capacity** of 3 GW or less;
- (iii) 2 persons representing the **Network Operators** in England and Wales;
- (iv) a person representing the **Network Operators** in Scotland;
- (v) a person representing the **Suppliers**;
- (vi) a person representing the **Non Embedded Customers**;
- (vii) a person representing the **Generators with Small Power Stations and/or Medium Power Stations** (other than **Generators** who also have **Large Power Stations**);
- (viii) a person representing the **BSC Panel**;
- (ix) a person representing the **Externally Interconnected System Operators**;
- (x) a person representing **Generators with Novel Units**; and
- (xi) 2 persons representing **Relevant Transmission Licensees** (in respect of PC.6.2, PC.6.3, PC Appendix A C and E, CC.6.1, CC.6.2, CC.6.3, OC8 and GC.11, OC7.6, OC9.4 and OC9.5).

each of whom shall be appointed pursuant to the rules issued pursuant to GC.4.4.

- GC.4.4 The **Panel** shall establish and comply at all times with its own rules and procedures relating to the conduct of its business, which shall be approved by the **Authority**.
- GC.4.5 **NGET** shall consult in writing all **Authorised Electricity Operators** which are liable to be materially affected in relation to all **GC Modification Proposals** and shall submit all **GC Modification Proposals** to the **Panel** for discussion prior to such consultation. Each **GC Modification Proposals** shall include an evaluation of whether the amendment would better facilitate the achievement of the **Grid Code** objectives, as provided in **NGET's Transmission Licence**. Where the impact on greenhouse gasses arising from any **GC Modification Proposal** is likely to be material, this evaluation shall include an assessment of the quantifiable impact of any **GC Modification Proposal** on greenhouse gas emissions, such assessment to be conducted in accordance with any guidance (on the treatment of carbon costs and evaluation of greenhouse gas emissions) as may be issued by the **Authority** from time to time.
- GC.4.6 **NGET** shall establish (and, where appropriate, revise from time to time) joint working arrangements with the **STC Committee** to facilitate the identification, co-ordination, making and implementation of change to the **STC** consequent on a **GC Modification Proposals** in a full and timely manner. These working arrangements shall be such as enable the consideration development and evaluation of **GC Modification Proposals** to proceed in a full and timely manner and enable changes to the **STC** consequent on a **GC Modification Proposals** to be made and given effect wherever possible (subject to any necessary consent of the **Authority**) at the same time as such approved amendment is made and given effect.
- GC.4.7 **NGET** shall ensure that the **Code Administrator** undertakes its functions consistently with the relevant provisions of the **Code Administration Code of Practice**.
- GC.4.8 The procedures set out in the **General Conditions**, to the extent that they are dealt with in the **Code Administration Code of Practice**, are consistent with the principles contained in the **Code Administration Code of Practice**. Where inconsistencies or conflicts exist between the **Grid Code** and the **Code Administration Code of Practice**, the **Grid Code** shall take precedence.
- GC.4.9 **NGET** is required by its **Licence** to provide a report to the **Authority** where **NGET** determines that **GC Modification Proposals** are required. Following provision of such report to the **Authority**, if the **Authority** determines that it is such that the **Authority** cannot properly form an opinion on the **GC Modification Proposal**, it may issue a direction to the **NGET**:
- (a) specifying the additional steps (including drafting or amending existing drafting associated with the amendment), revisions (including revision to the timetable), analysis or information that it requires in order to form such an opinion; and
  - (b) requiring the report to be revised and to be re-submitted.

GC.4.10 If a report is to be revised and re-submitted in accordance with a direction issued pursuant to GC.4.9, it shall be re-submitted as soon after the **Authority's** direction as is appropriate, taking into account the complexity, importance and urgency of the **GC Modification Proposal**. **NGET** shall decide on the level of analysis and consultation required in order to comply with the **Authority's** direction and shall agree an appropriate timetable for meeting its obligations.

## GC.5 COMMUNICATION BETWEEN NGET AND USERS

GC.5.1 Unless otherwise specified in the **Grid Code**, all instructions given by **NGET** and communications (other than relating to the submission of data and notices) between **NGET** and **Users** (other than **Generators**, **DC Converter Station** owners or **Suppliers**) shall take place between the **NGET Control Engineer** based at the **Transmission Control Centre** notified by **NGET** to each **User** prior to connection, and the relevant **User Responsible Engineer/Operator**, who, in the case of a **Network Operator**, will be based at the **Control Centre** notified by the **Network Operator** to **NGET** prior to connection.

GC.5.2 Unless otherwise specified in the **Grid Code** all instructions given by **NGET** and communications (other than relating to the submission of data and notices) between **NGET** and **Generators** and/or **DC Converter Station** owners and/or **Suppliers** shall take place between the **NGET Control Engineer** based at the **Transmission Control Centre** notified by **NGET** to each **Generator** or **DC Converter Station** owner prior to connection, or to each **Supplier** prior to submission of **BM Unit Data**, and either the relevant **Generator's** or **DC Converter Station** owner's or **Supplier's Trading Point** (if it has established one) notified to **NGET** or the **Control Point** of the **Supplier** or the **Generator's Power Station** or **DC Converter Station**, as specified in each relevant section of the **Grid Code**. In the absence of notification to the contrary, the **Control Point** of a **Generator's Power Station** will be deemed to be the **Power Station** at which the **Generating Units** or **Power Park Modules** are situated.

GC.5.3 Unless otherwise specified in the **Grid Code**, all instructions given by **NGET** and communications (other than relating to the submission of data and notices) between **NGET** and **Users** will be given by means of the **Control Telephony** referred to in CC.6.5.2.

GC.5.4 If the **Transmission Control Centre** notified by **NGET** to each **User** prior to connection, or the **User Control Centre**, notified in the case of a **Network Operator** to **NGET** prior to connection, is moved to another location, whether due to an emergency or for any other reason, **NGET** shall notify the relevant **User** or the **User** shall notify **NGET**, as the case may be, of the new location and any changes to the **Control Telephony** or **System Telephony** necessitated by such move, as soon as practicable following the move.

GC.5.5 If any **Trading Point** notified to **NGET** by a **Generator** or **DC Converter Station** owner prior to connection, or by a **Supplier** prior to submission of **BM Unit Data**, is moved to another location or is shut down, the **Generator**, **DC Converter Station** owner or **Supplier** shall immediately notify **NGET**.

GC.5.6 The recording (by whatever means) of instructions or communications given by means of **Control Telephony** or **System Telephony** will be accepted by **NGET** and **Users** as evidence of those instructions or communications.

## GC.6 MISCELLANEOUS

### GC.6.1 Data and Notices

GC.6.1.1 Data and notices to be submitted either to **NGET** or to **Users** under the **Grid Code** (other than data which is the subject of a specific requirement of the **Grid Code** as to the manner of its delivery) shall be delivered in writing either by hand or sent by first-class pre-paid post, or by facsimile transfer or by electronic mail to a specified address or addresses previously supplied by **NGET** or the **User** (as the case may be) for the purposes of submitting that data or those notices.

- GC.6.1.2 References in the **Grid Code** to “in writing” or “written” include typewriting, printing, lithography, and other modes of reproducing words in a legible and non-transitory form and in relation to submission of data and notices includes electronic communications.
- GC.6.1.3 Data delivered pursuant to paragraph GC.6.1.1, in the case of data being submitted to **NGET**, shall be addressed to the **Transmission Control Centre** at the address notified by **NGET** to each **User** prior to connection, or to such other Department within **NGET** or address, as **NGET** may notify each **User** from time to time, and in the case of notices to be submitted to **Users**, shall be addressed to the chief executive of the addressee (or such other person as may be notified by the **User** in writing to **NGET** from time to time) at its address(es) notified by each **User** to **NGET** in writing from time to time for the submission of data and service of notices under the **Grid Code** (or failing which to the registered or principal office of the addressee).
- GC.6.1.4 All data items, where applicable, will be referenced to nominal voltage and **Frequency** unless otherwise stated.

## GC.7 OWNERSHIP OF PLANT AND/OR APPARATUS

References in the **Grid Code** to **Plant** and/or **Apparatus** of a **User** include **Plant** and/or **Apparatus** used by a **User** under any agreement with a third party.

## GC.8 SYSTEM CONTROL

Where a **User's System** (or part thereof) is, by agreement, under the control of **NGET**, then for the purposes of communication and co-ordination in operational timescales **NGET** can (for those purposes only) treat that **User's System** (or part thereof) as part of the **National Electricity Transmission System**, but, as between **NGET** and **Users**, it shall remain to be treated as the **User's System** (or part thereof).

## GC.9 EMERGENCY SITUATIONS

**Users** should note that the provisions of the **Grid Code** may be suspended, in whole or in part, during a Security Period, as more particularly provided in the **Fuel Security Code**, or pursuant to any directions given and/or orders made by the **Secretary of State** under section 96 of the **Act** or under the Energy Act 1976.

## GC.10 MATTERS TO BE AGREED

Save where expressly stated in the **Grid Code** to the contrary where any matter is left to **NGET** and **Users** to agree and there is a failure so to agree the matter shall not without the consent of both **NGET** and **Users** be referred to arbitration pursuant to the rules of the **Electricity Supply Industry Arbitration Association**.

## GC.11 GOVERNANCE OF ELECTRICAL STANDARDS

GC.11.1 In relation to the **Electrical Standards** the following provisions shall apply.

- GC.11.2 (a) If a **User**, or in respect of (a) or (b) to the annex, **NGET**, or in respect of (c) or (d) to the annex, the **Relevant Transmission Licensee**, wishes to:-
- (i) raise a change to an **Electrical Standard**;
  - (ii) add a new standard to the list of **Electrical Standards**;
  - (iii) delete a standard from being an **Electrical Standard**,
- it shall activate the **Electrical Standards** procedure.

- (b) The **Electrical Standards** procedure is the notification to the secretary to the **Panel** of the wish to so change, add or delete an **Electrical Standard**. That notification must contain details of the proposal, including an explanation of why the proposal is being made.

#### GC.11.3

##### Ordinary Electrical Standards Procedure

- (a) Unless it is identified as an urgent **Electrical Standards** proposal (in which case GC.11.4 applies) or unless the notifier requests that it be tabled at the next **Panel** meeting, as soon as reasonably practicable following receipt of the notification, the **Panel** secretary shall forward the proposal, with a covering paper, to **Panel** members.
- (b) If no objections are raised within 20 Business Days of the date of the proposal, then it shall be deemed approved pursuant to the **Electrical Standards** procedure, and **NGET** shall make the change to the relevant **Electrical Standard** or the list of **Electrical Standards** contained in the Annex to this GC.11.
- (c) If there is an objection (or if the notifier had requested that it be tabled at the next **Panel** meeting rather than being dealt with in writing), then the proposal will be included in the agenda for the next following **Panel** meeting.
- (d) If there is broad consensus at the **Panel** meeting in favour of the proposal, **NGET** will make the change to the **Electrical Standard** or the list of **Electrical Standards** contained in the Annex to this GC.11.
- (e) If there is no such broad consensus, including where the Panel believes that further consultation is needed, **NGET** will establish a **Panel** working group if this was thought appropriate and in any event **NGET** shall undertake a consultation of **Authorised Electricity Operators** liable to be materially affected by the proposal.
- (f) Following such consultation, **NGET** will report back to **Panel** members, either in writing or at a **Panel** meeting. If there was broad consensus in the consultation, then **NGET** will make the change to the **Electrical Standard** or the list of **Electrical Standards** contained in the Annex to this GC.11.
- (g) Where following such consultation there is no broad consensus, the matter will be referred to the **Authority** who will decide whether the proposal should be implemented and will notify **NGET** of its decision. If the decision is to so implement the change, **NGET** will make the change to the **Electrical Standard** or the list of **Electrical Standards** contained in the Annex to this GC.11.
- (h) In all cases where a change is made to the list of **Electrical Standards**, **NGET** will publish and circulate a replacement page for the Annex to this GC covering that list and reflecting the change.

#### GC.11.4

##### Urgent Electrical Standards Procedure

- (a) If the notification is marked as an urgent **Electrical Standards** proposal, the **Panel** secretary will contact **Panel** members in writing to see whether a majority who are contactable agree that it is urgent and in that notification the secretary shall propose a timetable and procedure which shall be followed.
- (b) If such members do so agree, then the secretary will initiate the procedure accordingly, having first obtained the approval of the **Authority**.
- (c) If such members do not so agree, or if the **Authority** declines to approve the proposal being treated as an urgent one, the proposal will follow the ordinary **Electrical Standards** procedure as set out in GC.11.3 above.
- (d) If a proposal is implemented using the urgent **Electrical Standards** procedure, **NGET** will contact all **Panel** members after it is so implemented to check whether they wish to discuss further the implemented proposal to see whether an additional proposal should be considered to alter the implementation, such proposal following the ordinary **Electrical Standards** procedure.

- GC.12 CONFIDENTIALITY
- GC.12.1 **Users** should note that although the **Grid Code** contains in certain sections specific provisions which relate to confidentiality, the confidentiality provisions set out in the **CUSC** apply generally to information and other data supplied as a requirement of or otherwise under the **Grid Code**.
- GC.12.2 **NGET** has obligations under the **STC** to inform **Relevant Transmission Licensees** of certain data. **NGET** may pass on **User** data to a **Relevant Transmission Licensee** where:
- (a) **NGET** is required to do so under a provision of Schedule 3 of the **STC**; and/or
  - (b) permitted in accordance with PC.3.4, PC.3.5 and OC2.3.2.
- GC.13 RELEVANT TRANSMISSION LICENSEES
- GC.13.1 It is recognised that the **Relevant Transmission Licensees** are not parties to the **Grid Code**. Accordingly, notwithstanding that Operating Code No. 8 Appendix 1 ("OC8A") and Appendix 2 ("OC8B"), OC7.6, OC9.4 and OC9.5 refer to obligations which will in practice be performed by the **Relevant Transmission Licensees** in accordance with relevant obligations under the **STC**, for the avoidance of doubt all contractual rights and obligations arising under OC8A, OC8B, OC7.6, OC9.4 and OC9.5 shall exist between **NGET** and the relevant **User** and in relation to any enforcement of those rights and obligations OC8A, OC8B, OC7.6, OC9.4 and OC9.5 shall be so read and construed. The **Relevant Transmission Licensees** shall enjoy no enforceable rights under OC8A, OC8B, OC7.6, OC9.4 and OC9.5 nor shall they be liable (other than pursuant to the **STC**) for failing to discharge any obligations under OC8A, OC8B, OC7.6, OC9.4 and OC9.5.
- GC.13.2 For the avoidance of doubt nothing in this **Grid Code** confers on any **Relevant Transmission Licensee** any rights, powers or benefits for the purpose of the Contracts (Rights of Third Parties) Act 1999.
- GC.14 BETTA TRANSITION ISSUES
- GC.14.1 The provisions of the Appendix to the **General Conditions** apply in relation to issues arising out of the transition associated with the designation of **GC Modification Proposals** by the **Secretary of State** in accordance with the provisions of the Energy Act 2004 for the purposes of Condition C14 of **NGET's Transmission Licence**.
- GC.15 EMBEDDED EXEMPTABLE LARGE AND MEDIUM POWER STATIONS
- GC.15.1 This GC.15.1 shall have an effect until and including 31<sup>st</sup> March 2007.
- (i) CC.6.3.2, CC.6.3.7, CC.8.1 and BC3.5.1; and
  - (ii) Planning Code obligations and other Connection Conditions; shall apply to a **User** who owns or operates an **Embedded Exemptable Large Power Station**, or a **Network Operator** in respect of an **Embedded Exemptable Medium Power Station**, except where and to the extent that, in respect of that **Embedded Exemptable Large Power Station** or **Embedded Exemptable Medium Power Station**, **NGET** agrees or where the relevant **User** and **NGET** fail to agree, where and to the extent that the **Authority** consents.
- GC.16 SIGNIFICANT CODE REVIEW
- GC.16.1 A **Significant Code Review** is a code review process initiated and led by the **Authority**, on one of a number of potential triggers. The **Authority** will launch a **Significant Code Review** on publication of a notice setting out matters such as the scope of the review, reasons for it and announcing the start date.

- GC16.2 A **Significant Code Review Phase** begins on the start date set out in the **Authority's** notice, during which time any **GC Modification Proposals** that relate to the subject matter of the review are restricted, to ensure the process is as efficient as possible. Once the **Authority** has published its **Significant Code Review** conclusions, the **Authority** may direct **NGET** to raise a **GC Modification Proposal** to put into effect the results of the **Significant Code Review**.
- GC16.3 Where a **GC Modification Proposal** is raised during a **Significant Code Review Phase** unless exempted by the **Authority NGET** in consultation with the **Panel** shall assess whether the **GC Modification Proposal** falls within the scope of a **Significant Code Review** and shall notify the **Authority** of its assessment, its reasons for that assessment and any representations received in relation to it as soon as practicable.
- GC.16.4 The **GC Modification Proposal** shall proceed during a **Significant Code Review Phase** unless directed otherwise by the **Authority** in accordance with the paragraphs below.
- GC.16.5 The **Authority** may at any time direct that a **GC Modification Proposal** made during a **Significant Code Review Phase** falls within the scope of a **Significant Code Review** and must not be made during the **Significant Code Review Phase**. If so directed the **GC Modification Proposal** will not proceed and it shall be withdrawn or suspended until the end of the **Significant Code Review Phase**.
- GC.16.6 A **GC Modification Proposal** that falls within the scope of a **Significant Code Review** may be made where:
- (i) the **Authority** so determines, having taken into account (among other things) the urgency of the subject matter of the **GC Modification Proposal**; or
  - (ii) **NGET** makes the **GC Modification Proposal** pursuant to a direction from the **Authority** in accordance with the provisions below.
- GC.16.7 Where a direction in accordance with GC.16.5 has not been issued, **NGET**, in consultation with the **Panel** may proceed with the **GC Modification Proposal**.
- GC.16.8 Within twenty-eight (28) days after the **Authority** has published its **Significant Code Review** conclusions, the **Authority** may issue to **NGET** directions, including directions to **NGET** to make **GC Modification Proposal(s)**. **NGET** shall comply with those directions. Where **NGET** makes a **GC Modification Proposal** in accordance with the **Authority's** directions, it shall proceed as a normal **GC Modification Proposal**. Such **Authority** conclusions and directions shall not fetter the voting rights of the **Panel** or any recommendation **NGET** makes in relation to any **GC Modification Proposal**.
- GC.16.9 **NGET** may not, without the prior consent of the **Authority**, withdraw a **GC Modification Proposal** made pursuant to a direction issued by the **Authority** pursuant to GC.16.8.

## ANNEX TO THE GENERAL CONDITIONS

The **Electrical Standards** are as follows:

- (a) **Electrical Standards** applicable in England and Wales

The Relevant Electrical Standards Document	Issue 1.0	09-Jan-2006
Control Telephony Electrical Standard	Issue 1.0	17-Sept-2007

- (b) The following specifications for electronic data communications facilities with reference to EDT and EDL facilities.

EDT Interface Specification	Issue 4
EDT Submitter Guidance Note	Dec-01
EDL Message Interface Specifications	Issue 4
EDL Interface Specification Guidance Note	Oct-01
EDL Instruction Interface Valid Reason Codes	Issue 2

- (c) Scottish **Electrical Standards** for **SPT's Transmission System**.

SPTTS 1	Requirements for the SP Transmission System and Connection Points to it.	Issue 1
SPTTS 2.1	Substations	Issue 1
SPTTS 2.2	Switchgear	Issue 1
SPTTS 2.3	Transformers and Reactors	Issue 1
SPTTS 2.5	Cables	Issue 1
SPTTS 2.6	Protection	Issue 1
SPTTS 2.7	Substation Control Systems	Issue 1
SPTTS 2.12	Substation Auxiliary Supplies	Issue 1

(d) Scottish **Electrical Standards** for **SHETL's Transmission System**.

1. NGTS 1: Rating and General Requirements for Plant, Equipment, Apparatus and Services for the National Grid System and Direct Connection to it. Issue 3 March 1999.
2. NGTS 2.1: Substations  
Issue 2 May 1995
3. NGTS 3.1.1: Substation Interlocking Schemes.  
Issue 1 October 1993.
4. NGTS 3.2.1: Circuit Breakers and Switches.  
Issue 1 September 1992.
5. NGTS 3.2.2: Disconnectors and Earthing Switches.  
Issue 1 March 1994.
6. NGTS 3.2.3: Metal-Oxide surge arresters for use on 132, 275 and 400kV systems.  
Issue 2 May 1994.
7. NGTS 3.2.4: Current Transformers for protection and General use on the 132, 275 and 400kV systems.  
Issue 1 September 1992.
8. NGTS 3.2.5: Voltage Transformers for use on the 132, 275 and 400 kV systems.  
Issue 2 March 1994.
9. NGTS 3.2.6: Current and Voltage Measurement Transformers for Settlement Metering of 33, 66, 132, 275 and 400kV systems.  
Issue 1 September 1992.
10. NGTS 3.2.7: Bushings for the Grid Systems.  
Issue 1 September 1992.
11. NGTS 3.2.9: Post Insulators for Substations.  
Issue 1 May 1996.
12. NGTS 2.6: Protection  
Issue 2 June 1994.
13. NGTS 3.11.1: Capacitors and Capacitor Banks.  
Issued 1 March 1993.



## APPENDIX TO THE GENERAL CONDITIONS

- GC.A.1 Introduction
- GC.A.1.1 This Appendix to the **General Conditions** deals with issues arising out of the transition associated with the designation of amendments to the **Grid Code** by the **Secretary of State** in accordance with the provisions of the Energy Act 2004 for the purposes of Condition C14 of **NGET's Transmission Licence**. For the purposes of this Appendix to the **General Conditions**, the version of the **Grid Code** as amended by the changes designated by the **Secretary of State** and as further amended from time to time shall be referred to as the "**GB Grid Code**".
- GC.A.1.2 The provisions of this Appendix to the **General Conditions** shall only apply to **Users** (as defined in GC.A.1.4) and **NGET** after **Go-Live** for so long as is necessary for the transition requirements referred to in GC.A.1.1 and cut-over requirements (as further detailed in GC.A.3.1) to be undertaken.
- GC.A.1.3 In this Appendix to the **General Conditions**:
- (a) **Existing E&W Users** and **E&W Applicants** are referred to as "**E&W Users**";
  - (b) **Users** who as at 1 January 2005 have entered into an agreement or have accepted an offer for connection to and/or use of the **Transmission System** of **NGET** are referred to as "**Existing E&W Users**";
  - (c) **Users** (or prospective **Users**) other than **Existing E&W Users** who apply during the **Transition Period** for connection to and/or use of the **Transmission System** of **NGET** are referred to as "**E&W Applicants**";
  - (d) Existing **Scottish Users** and **Scottish Applicants** are referred to as "**Scottish Users**";
  - (e) **Users** who as at 1 January 2005 have entered into an agreement or have accepted an offer for connection to and/or use of the **Transmission System** of either **Relevant Transmission Licensee** are referred to as "**Existing Scottish Users**";
  - (f) **Users** (or prospective **Users**) other than **Existing Scottish Users** who apply during the **Transition Period** for connection to and/or use of the **Transmission System** of either **Relevant Transmission Licensee** are referred to as "**Scottish Applicants**";
  - (g) the term "**Transition Period**" means the period from **Go-Active** to **Go-Live** (unless it is provided to be different in relation to a particular provision), and is the period with which this Appendix to the **General Conditions** deals;
  - (h) the term "**Interim GB SYS**" means the document of that name referred to in Condition C11 of **NGET's Transmission Licence**;
  - (i) the term "**Go-Active**" means the date on which the amendments designated by the **Secretary of State** to the **Grid Code** in accordance with the Energy Act 2004 come into effect; and
  - (j) the term "**Go-Live**" means the date which the **Secretary of State** indicates in a direction shall be the BETTA go-live date.
- GC.A.1.4 The provisions of GC.2.1 shall not apply in respect of this Appendix to the **General Conditions**, and in this Appendix to the **General Conditions** the term "**Users**" means:
- (a) **Generators**;
  - (b) **Network Operators**;
  - (c) **Non-Embedded Customers**;
  - (d) **Suppliers**;
  - (e) **BM Participants**; and
  - (f) **Externally Interconnected System Operators**,
  - (g) **DC Converter Station** owners

to the extent that the provisions of this Appendix to the **General Conditions** affect the rights and obligations of such **Users** under the other provisions of the **GB Grid Code**.

- GC.A.1.5 The **GB Grid Code** has been introduced with effect from **Go-Active** pursuant to the relevant licence changes introduced into **NGET's Transmission Licence**. **NGET** is required to implement and comply, and **Users** to comply, with the **GB Grid Code** subject as provided in this Appendix to the **General Conditions**, which provides for the extent to which the **GB Grid Code** is to apply to **NGET** and **Users** during the **Transition Period**.
- GC.A.1.6 This Appendix to the **General Conditions** comprises:
- (a) this Introduction;
  - (b) **GB Grid Code** transition issues; and
  - (c) Cut-over issues.
- GC.A.1.7 Without prejudice to GC.A.1.8, the failure of any **User** or **NGET** to comply with this Appendix to the **General Conditions** shall not invalidate or render ineffective any part of this Appendix to the **General Conditions** or actions undertaken pursuant to this Appendix to the **General Conditions**.
- GC.A.1.8 A **User** or **NGET** shall not be in breach of any part of this Appendix to the **General Conditions** to the extent that compliance with that part is beyond its power by reason of the fact that any other **User** or **NGET** is in default of its obligations under this Appendix to the **General Conditions**.
- GC.A.1.9 Without prejudice to any specific provision under this Appendix to the **General Conditions** as to the time within which or the manner in which a **User** or **NGET** should perform its obligations under this Appendix to the **General Conditions**, where a **User** or **NGET** is required to take any step or measure under this Appendix to the **General Conditions**, such requirement shall be construed as including any obligation to:
- (a) take such step or measure as quickly as reasonably practicable; and
  - (b) do such associated or ancillary things as may be necessary to complete such step or measure as quickly as reasonably practicable.
- GC.A.1.10 **NGET** shall use reasonable endeavours to identify any amendments it believes are needed to the **GB Grid Code** in respect of the matters referred to for the purposes of Condition C14 of **NGET's Transmission Licence** and in respect of the matters identified in GC.A.1.11, and, having notified the **Authority** of its consultation plans in relation to such amendments, **NGET** shall consult in accordance with the instructions of the **Authority** concerning such proposed amendments.
- GC.A.1.11 The following matters potentially require amendments to the **GB Grid Code**:
- (a) The specific detail of the obligations needed to manage implementation in the period up to and following (for a temporary period) **Go-Live** to achieve the change to operation under the **GB Grid Code** (to be included in GC.A.3).
  - (b) Information (including data) and other requirements under the **GB Grid Code** applicable to **Scottish Users** during the **Transition Period** (to be included in GC.A.2).
  - (c) The conclusions of Ofgem/DTI in relation to small and/or embedded generator issues under BETTA and allocation of access rights on a GB basis.
  - (d) Any arrangements required to make provision for operational liaison, including **Black Start** and islanding arrangements in Scotland.
  - (e) Any arrangements required to make provision for cascade hydro **BM Units**.
  - (f) Any consequential changes to the safety co-ordination arrangements resulting from **STC** and **STC** procedure development.
  - (g) Any arrangements required to reflect the **Electrical Standards** for the **Transmission Systems** of **SPT** and **SHETL**.

(h) The conclusions of Ofgem/DTI in relation to planning and operating standards.

GC.A.1.12 **NGET** shall notify the **Authority** of any amendments that **NGET** identifies as needed pursuant to GC.A.1.10 and shall make such amendments as the **Authority** approves.

GC.A.2 GB Grid Code Transition

General Provisions

GC.A.2.1 The provisions of the **GB Grid Code** shall be varied or suspended (and the requirements of the **GB Grid Code** shall be deemed to be satisfied) by or in accordance with, and for the period and to the extent set out in this GC.A.2, and in accordance with the other applicable provisions in this Appendix to the **General Conditions**.

GC.A.2.2 E&W Users:

In furtherance of the licence provisions referred to in GC.A.1.5, E&W Users shall comply with the GB Grid Code during the Transition Period, but shall comply with and be subject to it subject to this Appendix to the General Conditions, including on the basis that:

- (a) during the **Transition Period** the **Scottish Users** are only complying with the **GB Grid Code** in accordance with this Appendix to the **General Conditions**; and
- (b) during the **Transition Period** the **National Electricity Transmission System** shall be limited to the **Transmission System** of **NGET**, and all rights and obligations of **E&W Users** in respect of the **National Electricity Transmission System** under the **GB Grid Code** shall only apply in respect of the **Transmission System** of **NGET**, and all the provisions of the **GB Grid Code** shall be construed accordingly.

GC.A.2.3 Scottish Users:

In furtherance of the licence provisions referred to in GC.A.1.5, Scottish Users shall comply with the GB Grid Code and the GB Grid Code shall apply to or in relation to them during the Transition Period only as provided in this Appendix to the General Conditions.

GC.A.2.4 NGET:

In furtherance of the licence provisions referred to in GC.A.1.5, **NGET** shall implement and comply with the **GB Grid Code** during the **Transition Period**, but shall implement and comply with and be subject to it subject to, and taking into account, all the provisions of this Appendix to the **General Conditions**, including on the basis that:

- (a) during the **Transition Period** **NGET's** rights and obligations in relation to **E&W Users** in respect of the **National Electricity Transmission System** under the **GB Grid Code** shall only apply in respect of the **Transmission System** of **NGET**, and all the provisions of the **GB Grid Code** shall be construed accordingly; and
- (b) during the **Transition Period** **NGET's** rights and obligations in relation to **Scottish Users** in respect of the **National Electricity Transmission System** under the **GB Grid Code** shall only be as provided in this Appendix to the **General Conditions**.

Specific Provisions

GC.A.2.5 Definitions:

The provisions of the **GB Grid Code Glossary and Definitions** shall apply to and for the purposes of this Appendix to the **General Conditions** except where provided to the contrary in this Appendix to the **General Conditions**.

GC.A.2.6 Identification of Documents:

In the period beginning at **Go-Active**, **Scottish Users** will work with **NGET** to identify and agree with **NGET** any documents needed to be in place in accordance with the **GB Grid Code**, to apply from **Go-Live** or as earlier provided for under this Appendix to the **General Conditions**, including (without limitation) **Site Responsibility Schedules**, **Gas Zone Diagrams** and **OC9 Desynchronised Island Procedures**.

GC.A.2.7 Data:

Each **Scottish User** must provide, or enable a **Relevant Transmission Licensee** to provide, **NGET**, as soon as reasonably practicable upon request, with all data which **NGET** needs in order to implement, with effect from **Go-Live**, the **GB Grid Code** in relation to Scotland. This data will include, without limitation, the data that a new **User** is required to submit to **NGET** under CC.5.2. **NGET** is also entitled to receive data on **Scottish Users** over the **Relevant Transmission Licensees'** SCADA links to the extent that **NGET** needs it for use in testing and in order to implement, with effect from **Go-Live**, the **GB Grid Code** in relation to Scotland. After **Go-Live** such data shall, notwithstanding GC.A.1.2, be treated as though it had been provided to **NGET** under the enduring provisions of the **GB Grid Code**.

GC.A.2.8 Verification of Data etc:

**NGET** shall be entitled to request from a **Scottish User** (which shall comply as soon as reasonably practicable with such a request) confirmation and verification of any information (including data) that has been received by a **Relevant Transmission Licensee** under an existing grid code and passed on to **NGET** in respect of that **Scottish User**. After **Go-Live** such information (including data) shall, notwithstanding GC.A.1.2, be treated as though provided to **NGET** under the enduring provisions of the **GB Grid Code**.

GC.A.2.9 Grid Code Review Panel:

(a) The individuals whose names are notified to **NGET** by the **Authority** prior to **Go-Active** as **Panel** members (and alternate members, if applicable) are agreed by **Users** (including **Scottish Users**) and **NGET** to constitute the **Panel** members and alternate members of the **Grid Code Review Panel** as at the first meeting of the **Grid Code Review Panel** after **Go-Active** as if they had been appointed as **Panel** members (and alternate members) pursuant to the relevant provisions of the Constitution and Rules of the **Grid Code Review Panel** incorporating amendments equivalent to the amendments to GC.4.2 and GC.4.3 designated by the **Secretary of State** in accordance with the provisions of the Energy Act 2004 for the purposes of Condition C14 of **NGET's Transmission Licence**.

(b) The provisions of GC.4 of the **GB Grid Code** shall apply to, and in respect of, **Scottish Users** from **Go-Active**.

GC.A.2.10 Interim GB SYS:

Where requirements are stated in, or in relation to, the **GB Grid Code** with reference to the **Seven Year Statement**, they shall be read and construed as necessary as being with reference to the **Interim GB SYS**.

GC.A.2.11 General Conditions:

The provisions of GC.4, GC.12 and GC.13.2 of the **GB Grid Code** shall apply to and be complied with by **Scottish Users** in respect of this Appendix to the **General Conditions**.

GC.A.2.12 OC2 Data

(a) The following provisions of the **GB Grid Code** shall apply to and be complied with by **Scottish Users** with effect from the relevant date indicated below:

- (i) OC2.4.1.2.3 (a) from 19 January 2005 in respect of 2 to 52 week submissions,
- (ii) OC2.4.1.2.4 (c) from 25 February 2005 in respect of 2 to 49 day submissions,
- (iii) OC2.4.1.2.4 (b) from 22 March 2005 in respect of 2 to 14 day submissions,

The data to be submitted in respect of OC2.4.1.2.3 (a) and OC2.4.1.2.4 (b) and (c) need only be in respect of dates on or after 1 April 2005.

GC.A.3 Cut-over

GC.A.3.1 It is anticipated that it will be appropriate for arrangements to be put in place for final transition to BETTA in the period up to and following (for a temporary period) **Go-Live**, for the purposes of:

- (a) managing the transition from operations under the **Grid Code** as in force immediately prior to **Go-Active** to operations under the **GB Grid Code** and the **BSC** as in force on and after **Go-Active**;
  - (b) managing the transition from operations under the existing grid code applicable to **Scottish Users** as in force immediately prior to **Go-Active** to operations under the **GB Grid Code** as in force on and after **Go-Active**;
  - (c) managing the transition of certain data from operations under the existing grid code applicable to **Scottish Users** before and after **Go-Active**; and
  - (d) managing **GB Grid Code** systems, processes and procedures so that they operate effectively at and from **Go-Live**.
- GC.A.3.2
- (a) The provisions of **BC1** (excluding BC1.5.1, BC1.5.2 and BC1.5.3) shall apply to and be complied with by **Scottish Users** and by **NGET** in respect of such **Scottish Users** with effect from 11:00 hours on the day prior to **Go-Live**
  - (b) Notwithstanding (a) above, **Scottish Users** may submit data for **Go-Live** 3 days in advance of **Go-Live** on the basis set out in the **Data Validation, Consistency and Defaulting Rules** which shall apply to **Scottish Users** and **NGET** in respect of such **Scottish Users** on that basis and for such purpose.
  - (c) The **Operational Day** for the purposes of any submissions by **Scottish Users** prior to **Go-Live** under a) and b) above for the day of **Go-Live** shall be 00:00 hours on **Go Live** to 05:00 hours on the following day.
  - (d) The provisions of **BC2** shall apply to and be complied with by **Scottish Users** and by **NGET** in respect of such **Scottish Users** with effect from 23:00 hours on the day prior to **Go-Live**.
  - (e) The provisions of **OC7.4.8** shall apply to and be complied with by **Scottish Users** and by **NGET** in respect of such **Scottish Users** with effect from 11:00 hours on the day prior to **Go-Live**.
  - (f) In order to facilitate cut-over, **Scottish Users** acknowledge and agree that **NGET** will exchange data submitted by such **Scottish Users** under **BC1** prior to Go-Live with the Scottish system operators to the extent necessary to enable the cut-over.
  - (g) Except in the case of **Reactive Power**, **Scottish Users** should only provide **Ancillary Services** from **Go-Live** where they have been instructed to do so by **NGET**. In the case of **Reactive Power**, at **Go-Live** a **Scottish Users** MVA<sub>r</sub> output will be deemed to be the level instructed by **NGET** under **BC2**, following this **Scottish Users** should operate in accordance with **BC2.A.2.6** on the basis that MVA<sub>r</sub> output will be allowed to vary with system conditions.

< END OF GENERAL CONDITIONS >



# REVISIONS

(R)

(This section does not form part of the Grid Code)

- R.1 **NGET's Transmission Licence** sets out the way in which changes to the Grid Code are to be made and reference is also made to **NGET's** obligations under the General Conditions.
- R.2 All pages re-issued have the revision number on the lower left hand corner of the page and date of the revision on the lower right hand corner of the page.
- R.3 The Grid Code was introduced in March 1990 and the first issue was revised 31 times. In March 2001 the New Electricity Trading Arrangements were introduced and Issue 2 of the Grid Code was introduced which was revised 16 times. At British Electricity Trading and Transmission Arrangements (BETTA) Go-Active Issue 3 of the Grid Code was introduced and subsequently revised 35 times. At Offshore Go-active Issue 4 of the Grid Code was introduced and has been revised 13 times since its original publication. Issue 5 of the Grid Code was published to accommodate the changes made by Grid Code Modification A/10 which has incorporated the **Generator** compliance process into the Grid Code.
- R.4 This Revisions section provides a summary of the sections of the Grid Code changed by each revision to Issue 5.
- R.5 All enquiries in relation to revisions to the Grid Code, including revisions to Issues 1, 2, 3, 4 and 5 should be addressed to the Grid Code development team at the following email address:  
[Grid.Code@nationalgrid.com](mailto:Grid.Code@nationalgrid.com)

<b>Revision</b>	<b>Section</b>	<b>Related Modification</b>	<b>Effective Date</b>
0	Glossary and Definitions	A/10 and G/11	17 August 2012
0	Planning Code – PC.2.1	G/11	17 August 2012
0	Planning Code – PC.5.4	G/11	17 August 2012
0	Planning Code – PC.8	G/11	17 August 2012
0	Planning Code – PC.8.2	G/11	17 August 2012
0	Planning Code – PC.A.1	G/11	17 August 2012
0	Planning Code – PC.A.2	A/10 and G/11	17 August 2012
0	Planning Code – PC.A.3	G/11	17 August 2012
0	Planning Code – PC.A.5	A/10 and G/11	17 August 2012
0	Compliance Processes	A/10	17 August 2012
0	Connection Conditions – CC.1.1	A/10	17 August 2012
0	Connection Conditions – CC.2.2	G/11	17 August 2012
0	Connection Conditions – CC.3.3	A/10	17 August 2012
0	Connection Conditions – CC.4.1	A/10	17 August 2012
0	Connection Conditions – CC.5.2	G/11	17 August 2012
0	Connection Conditions – CC.6.1	G/11	17 August 2012
0	Connection Conditions – CC.6.3	G/11	17 August 2012
0	Connection Conditions – CC.6.6	A/10	17 August 2012
0	Connection Conditions – CC.7.2	G/11	17 August 2012



<b>Revision</b>	<b>Section</b>	<b>Related Modification</b>	<b>Effective Date</b>
0	Connection Conditions – CC.7.4	G/11	17 August 2012
0	Connection Conditions – CC.A.1	G/11	17 August 2012
0	Connection Conditions – CC.A.2	G/11	17 August 2012
0	Connection Conditions – CC.A.3	G/11	17 August 2012
0	Connection Conditions – CC.A.4	G/11	17 August 2012
0	Connection Conditions – CC.A.6	A/10	17 August 2012
0	Connection Conditions – CC.A.7	A/10 and G/11	17 August 2012
0	Connection Conditions – Figure CC.A.3.1	G/11	17 August 2012
0	Operating Code No. 2 – OC2.4	G/11	17 August 2012
0	Operating Code No. 2 – OC2.A.1	G/11	17 August 2012
0	Operating Code No. 5 – OC5.3	A/10	17 August 2012
0	Operating Code No. 5 – OC5.5	A/10 and G/11	17 August 2012
0	Operating Code No. 5 – OC5.7	G/11	17 August 2012
0	Operating Code No. 5 – OC5.8	A/10 and G/11	17 August 2012
0	Operating Code No. 5 – OC5.A.1	A/10	17 August 2012
0	Operating Code No. 5 – OC5.A.2	A/10	17 August 2012
0	Operating Code No. 5 – OC5.A.3	A/10	17 August 2012
0	Operating Code No. 5 – OC5.A.4	A/10	17 August 2012
0	Operating Code No. 7 – OC7.4	G/11	17 August 2012
0	Operating Code No. 8 – OC8.2	G/11	17 August 2012

<b>Revision</b>	<b>Section</b>	<b>Related Modification</b>	<b>Effective Date</b>
0	Operating Code No. 8 – OC8A.1	G/11	17 August 2012
0	Operating Code No. 8 – OC8A.5	G/11	17 August 2012
0	Operating Code No. 8 – OC8B.1	G/11	17 August 2012
0	Operating Code No. 8 – OC8B.4	G/11	17 August 2012
0	Operating Code No. 8 – OC8B.5	G/11	17 August 2012
0	Operating Code No. 8 – OC8B Appendix E	G/11	17 August 2012
0	Operating Code No. 9 – OC9.2	G/11	17 August 2012
0	Operating Code No. 9 – OC9.4	G/11	17 August 2012
0	Operating Code No. 9 – OC9.5	G/11	17 August 2012
0	Operating Code No. 12 – OC12.3	G/11	17 August 2012
0	Operating Code No. 12 – OC12.4	G/11	17 August 2012
0	Balancing Code No. 1 – BC1.5	G/11	17 August 2012
0	Balancing Code No. 1 – BC1.8	G/11	17 August 2012
0	Balancing Code No. 1 – BC1.A.1	G/11	17 August 2012
0	Balancing Code No. 2 – BC2.5	G/11	17 August 2012
0	Balancing Code No. 2 – BC2.8	G/11	17 August 2012
0	Balancing Code No. 2 – BC2.A.2	G/11	17 August 2012
0	Balancing Code No. 2 – BC2.A.3	G/11	17 August 2012
0	Balancing Code No. 2 – BC2.A.4	G/11	17 August 2012
0	Balancing Code No. 3 – BC3.5	G/11	17 August 2012

<b>Revision</b>	<b>Section</b>	<b>Related Modification</b>	<b>Effective Date</b>
0	Balancing Code No. 3 – BC3.7	G/11	17 August 2012
0	Data Registration Code – DRC.1.5	G/11	17 August 2012
0	Data Registration Code – DRC.4.2	G/11	17 August 2012
0	Data Registration Code – DRC.4.4	G/11	17 August 2012
0	Data Registration Code – DRC.5.2	A/10 and G/11	17 August 2012
0	Data Registration Code – DRC.5.5	G/11	17 August 2012
0	Data Registration Code – DRC.6.1	A/10 and G/11	17 August 2012
0	Data Registration Code – DRC.6.2	A/10	17 August 2012
0	Data Registration Code – Schedule 1	A/10 and G/11	17 August 2012
0	Data Registration Code – Schedule 2	G/11	17 August 2012
0	Data Registration Code – Schedule 3	G/11	17 August 2012
0	Data Registration Code – Schedule 4	G/11	17 August 2012
0	Data Registration Code – Schedule 5	G/11	17 August 2012
0	Data Registration Code – Schedule 10	G/11	17 August 2012
0	Data Registration Code – Schedule 12A	G/11	17 August 2012
0	Data Registration Code – Schedule 14	A/10 and G/11	17 August 2012
0	Data Registration Code – Schedule 15	G/11	17 August 2012
0	Data Registration Code – Schedule 19	A/10	17 August 2012
0	General Conditions – GC.4	G/11	17 August 2012
0	General Conditions – GC.12	G/11	17 August 2012

<b>Revision</b>	<b>Section</b>	<b>Related Modification</b>	<b>Effective Date</b>
0	General Conditions – GC.15	G/11	17 August 2012
0	General Conditions – GC.A1	G/11	17 August 2012
0	General Conditions – GC.A2	G/11	17 August 2012
0	General Conditions – GC.A3	G/11	17 August 2012
1	Operating Code No. 8 – OC8A.5.3.4	C/12	6 November 2012
1	Operating Code No. 8 – OC8B.5.3.4	C/12	6 November 2012
2	Balancing Code No. 1 – BC1.2.1	B/12	31 January 2013
2	Balancing Code No. 1 – BC1.4.2	B/12	31 January 2013
2	Balancing Code No. 1 – BC1.A.1.5	B/12	31 January 2013
2	Connection Conditions – CC.7.7	D/12	31 January 2013
3	Glossary and Definitions	C/11	2 April 2013
3	Operating Code No. 8 – OC8A.4.3.5	B/10	2 April 2013
3	Operating Code No. 8 – OC8B.4.3.5	B/10	2 April 2013
3	Balancing Code No. 2 – BC2.5	C/11	2 April 2013
4	Glossary and Definitions	GC0060 (F/12)	19 August 2013
4	Planning Code - PC.A.5	GC0040 (A/12)	19 August 2013
4	Operating Code No. 2 – OC2.A.10	GC0060 (F/12)	19 August 2013
4	Data Registration Code – Schedule 1	GC0040 (A/12)	19 August 2013
4	Data Registration Code – Schedule 2	GC0060 (F/12)	19 August 2013
5	Glossary and Definitions	GC0033, 71, 72 and 73	05 November 2013

<b>Revision</b>	<b>Section</b>	<b>Related Modification</b>	<b>Effective Date</b>
5	General Conditions – GC.4	GC0071, 72 and 73	05 November 2013
5	General Conditions – GC.14	GC0071, 72 and 73	05 November 2013
5	General Conditions – GC.16	GC0071, 72 and 73	05 November 2013

**< END OF REVISIONS >**

