[THE DISTRIBUTION CODE](#DCodeStart)

**OF LICENSED DISTRIBUTION NETWORK OPERATORS  
OF GREAT BRITAIN**

**Issue TBA – TBC 2023**

ABRIDGED for GC0162

distribution GLOSSARY AND DEFINITIONS (dgd)

# DGD 1. EXPRESSIONS

In this **Distribution Code** the following words and expressions shall, unless the subject matter or context otherwise requires or is inconsistent therewith, bear the listed meanings:-

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| **Act** | The Electricity Act 1989 (as amended by the Utilities Act 2000 and the Energy Act 2004). | |
| **Active Power** | The product of voltage and the in-phase component of alternating current measured in units of watts, normally measured in kilowatts (kW) or megawatts (MW). | |
| **Annex 1 Standard** | A electricity industry national standard that implements **Distribution Code r**equirements and which is listed in Annex 1 of the **Distribution Code,** and forms part of the **Distribution Code**. |
| **Annex 2 Standard** | A electricity industry national standard that has a material effect on **Users** but does not implement any **Distribution Code** requirementsand does not form part of the **Distribution Code** technical requirements. |
| **Annual Average Cold Spell (****ACS) Conditions** | A particular combination of weather elements that give rise to a level of **Peak Demand** within afinancial year which has a 50% chance of being exceeded as a result of weather variation alone. | |
| **Apparatus** | All **Equipment** in which electrical conductors are used, supported or of which they may form a part. | |
| **Authorised Electricity Operator or AEO** | Any person (other than the **DNO** in its capacity as an operator of a Distribution System) who is authorised to generate, participate in the transmission of, distribute or supply electricity. | |
| **Authority** | The Gas and Electricity Markets Authority established under Section 1 of the Utilities Act 2000. | |
| **Average Conditions** | That combination of weather elements within a period of time which is the average of the observed values of these weather elements during equivalent periods over many years (Sometimes referred to as normal weather). | |
| **Balancing and Settlement Code (****BSC)** | The code of that title as from time to time amended. | |
| **Balancing Mechanism** | Has the meaning set out in **NGESO**’**s** **Transmission Licence**. | |
| **BM Unit** | Has the meaning set out in the **BSC**, except that for the purposes of the **Distribution Code** the reference to “Party” in the **BSC** shall be a reference to a **User**. | |
| **BM Participant** | A person who is responsible for and controls one or more **BM Units** or where a **CUSC Bilateral Agreement** specifies that a **User** is required to be treated as a **BM Participant** for the purpose of the **Grid Code.** For the avoidance of doubt, it does not imply that they must be active in the **Balancing Mechanism**. | |
| **Black Start** | The procedure necessary for a recovery from a **Total Shutdown** or **Partial Shutdown.** | |
| **Black Start Station** | A **Power Station** which is registered pursuant to a **CUSC Bilateral Agreement** with **NGESO**, as having a Black Start Capability. | |
| **Business Day** | Any day other than a Saturday, a Sunday, Christmas Day, Good Friday, or a day that is a bank holiday within the meaning of the Banking and Financial Dealings Act 1971. | |
| **CENELEC** | European Committee for Electrotechnical Standardisation. | |
| **Citizens Advice (****CA)** | National Association of Citizens Advice Bureaux | |
| **Citizens Advice Scotland (****CAS)** | Scottish Association of Citizens Advice Bureaux | |
| **Civil Emergency Direction** | Directions given by the **Secretary of State** to **AEOs** for the purpose of mitigating the effects of any natural disaster or other emergency which, in the opinion of the **Secretary of State**, is or may be likely to disrupt electricity supplies. | |
| **Committed Project Planning Data** | Data relating to a **User Development** once the offer for a **Connection Agreement** is accepted. | |
| **Connection Agreement** | An agreement between the **DNO** and the **User** or any **Customer** setting out the terms relating to a connection with the **DNO’s Distribution System** (excluding any **CUSC Bilateral Agreement**). | |
| **Connection Point** | An **Entry Point** or an **Exit Point** of the **Distribution System** as the case may be**.** | |
| **Control Centre** | A location used for the purpose of control and operation of all, or of part of a **Distribution System**, **National Electricity Transmission System** or the **System** of a **User.** | |
| **Control Person** | A person who has been nominated by an appropriate officer of the **DNO, Transmission Licensee** or a **User** to be responsible for controlling and co-ordinating safety activities necessary to achieve **Safety From The System.** | |
| **Control Phase** | The period 0-24 hours inclusive ahead of real time operation. The **Control Phase** follows on from the **Programming Phase** and covers the period down to real time. | |
| **CUSC** | Has the meaning set out in **NGESO**’**s** **Transmission Licence** | |
| **CUSC Bilateral Agreement** | An agreement pursuant to the **CUSC Framework Agreement** made between **NGESO** and a **User** of the **National Electricity Transmission System** | |
| **CUSC Disputes Resolution Procedure** | The procedure described in **CUSC** relating to disputes resolution. | |
| **CUSC Framework Agreement** | Has the meaning set out in **NGESO**’**s** **Transmission Licence.** | |
| **Customer** | Any person supplied or entitled to be supplied with electricity at any premises within **Great Britain** but shall not include any **[Authorised Electricity Operator](#AEO)**in its capacity as such. | |
| **Customer With Own Generation or CWOG** | A [**Customer**](#Customer) with one or more **Power Generating Modules** connected to the **Customer’s System**, providing all or part of the **Customer’s** electricity requirements**,** and which may use the **DNO’s Distribution System** for the transport of any surplus of electricity being exported. | |
| **DC Converter** | Any **Apparatus** used to convert alternating current electricity to direct current electricity, or vice versa. A **DC Converter** 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, a **DC Converter** represents the bipolar configuration. | |
| **DNO’s Distribution System** | The **System** consisting (wholly or mainly) of electric lines owned or operated by the **DNO** and used for the distribution of electricity between the **Grid** **Supply** **Points** or **Power Generating Modules** or other **Entry Points** to the points of delivery to **Customer**s or **Authorised Electricity Operators**, or any **Transmission Licensee** within **Great Britain** and **Offshore** in its capacity as operator of the licensee’s **Transmission System** or the **National Electricity Transmission System** and includes any **Remote Transmission Assets** (owned by a **Transmission Licensee** within **Great Britain**), operated by the **DNO** and any electrical plant and meters and metering equipment owned or operated by the **DNO** in connection with the distribution of electricity, but shall not include any part of the **National Electricity Transmission System** | |
| **Decimal Week** | The week numbering system where week 1 commences in the first week of January on a date as advised by the **DNO**. | |
| **De-energise** | The deliberate movement of any switch or the removal of any fuse or the taking of any other step whereby no electrical current can flow between the **DNO’s Distribution System** and the **User’s Equipment** at the **Connection Point** (and “De-energisation” shall be construed accordingly.) | |
| **Demand** | The demand of MW or MVAr of electricity (ie both [**Active Power**](#ActivePower) and **Reactive Power** respectively) unless otherwise stated. | |
| **Demand Control** | Any or all of the following methods of achieving a **Demand** reduction:  (a) **Customer** voltage reduction initiated by the **DNO** (other than following an instruction from **NGESO**);  (b) **Customer Demand** reduction by disconnectioninitiated by the **DNO** (other than following an instruction from **NGESO**);  (c) **Demand** reduction instructed by **NGESO**;  (d) automatic low frequency **Demand** disconnection;  (e) emergency manual **Demand** disconnection | |
| **Demand Control Notification Level** | The level above which the **DNO** has to notify **NGESO** of its proposed or achieved use of **Demand Control** which is 12 MW in England and Wales and 5 MW in Scotland. | |
| **Demand Facility** | An installation under the control of a **Customer** where electrical energy is consumed and is connected at one or more **Connection Point**s to the **DNO’s Distribution System**. | |
| **Demand Services Provider** | A party who contracts with the **DNO** to provide a demand side service. The party might be a **Customer** contracting bilaterally with the **DNO** for the provision of services, or may be a third party providing an aggregated service from many individual **Customer**s. In the latter case there will be a specific contract for the provision of the services to the **DNO** and will include compliance by that third party with the requirements of DPC9 in relation to each **Demand Unit** included in the aggregated service. | |
| **Demand Unit** | An appliance or a device whose **Active Power Demand** or **Reactive Power** production or consumption is being actively controlled by the **Customer** in whose **Demand Facilit** it is installed and which has been commissioned on or after 18 August 2019 in pursuance of a contract to this end with the **DNO**.  Such an appliance or device commissioned before this date, but which has been materially altered will also be included in this definition.  Where there is more than one **Demand Unit** in a **Demand Facilit**, these **Demand Units** shall together be considered as one **Demand Unit** if they cannot be operated independently from each other.  **Demand Units** of **Customers** where the **Customer** has concluded a final and binding contract for the purchase of a **Demand Unit** before 07 September 2018 are not included the scope of DPC9. The **Customer** must have notified the **DNO** of the conclusion of this final and binding contract by 07 March 2019. | |
| **Detailed Planning Data (****DPD)** | Detailed additional data which the **DNO** requires under the **Distribution Planning and Connection Code** in support of **Standard Planning Data.** | |
| **Distribution Business** | The authorised business of the **DNO** or any affiliate or related undertaking of the **DNO** (whether the business is undertaken by the **DNO** or another licence holder), comprising:  (a) the distribution of electricity through the **[DNO’s Distribution System](#DNOsDistributionSystem)**, including any business in providing connections to such **System**; and  (b) the provision of Distributor Metering and Data Services as defined in the **Distribution** **Licence**. | |
| **Distribution Code** | A code required to be prepared by a **DNO** pursuant to condition 9 (**Distribution** **Code**) of a **Distribution** **Licence** and approved by the [**Authority**](#Authority) as revised from time to time with the approval of, or by the direction of, the **Authority**. | |
| **Distribution Code Compliance Practice** | The process set out in DGC12.5. | |
| **Distribution Code Review Panel or** **Panel** | The standing body established under the **Distribution General Conditions.** | |
| **Distribution Data Registration Code** | That portion of the **Distribution Code** which is identified as the **Distribution Data Registration Code.** | |
| **Distribution General Conditions or DGC** | That portion of the **Distribution Code** which is identified as the **Distribution General Conditions.** | |
| **Distribution Glossary and Definitions** | That portion of the **Distribution Code** which is identified as the **Distribution Glossary and Definitions.** | |
| **Distribution Introduction (DIN)** | That portion of the **Distribution Code** which is identified as the **Distribution** **Introduction**. | |
| **Distribution Licence** | A distribution licence granted under Section 6(1)(c) of the **Act**. | |
| **Distribution Network Operator (****DNO)** | The person or legal entity named in Part 1 of the **Distribution Licence** and any permitted legal assigns or successors in title of the named party. | |
| **Distribution Operating Code (DOC)** | That portion of the **Distribution Code** which is identified as the **Distribution Operating Code.** | |
| **Distribution Planning and Connection Code (DPC)** | That portion of the **Distribution Code** which is identified as the **Distribution Planning and Connection Code.** | |
| **Distribution System** | The electrical network operated by an **Other Authorised Distributor.** | |
| **Distribution Use of System Agreement** | The standard form of agreement of that name, as amended from time to time. | |
| **Earthing Device** | A means of providing a connection between an **Isolated** conductor and earth. | |
| **Effective Date** | The effective date specified in the relevant modification to the **Distribution Code**, which may be after the implementation date of the modification to allow time for **Users** to make any arrangements that may be necessary in order to comply with that modification. | |
| **Electricity Safety, Quality and Continuity Regulations (****ESQCR)** | The statutory instrument entitled The Electricity Safety, Quality and Continuity Regulations 2002 as amended from time to time and including any further statutory instruments issued under the **Act** in relation to the distribution of electricity. | |
| **Embedded** | Having a direct electrical connection to a **Distribution System.** | |
| **Embedded Generator** | A **Generator** including a **Customer With Own Generation** whose **Power Generating Modules** are directly connected to the **DNO’s Distribution System** or to an **Other Authorised Distributor** connected to the [**DNO’s Distribution System**](#DNOsDistributionSystem)**.**  The definition of **Embedded Generator** also includes the **OTSO** in relation to any **Embedded Transmission System** | |
| **Embedded Transmission Licensee** | **Offshore Transmission Licensee** for an **Embedded Transmission System** | |
| **Embedded Transmission System** | An **Offshore Transmission System** directly connected to the **DNO’s Distribution System** or to an **Other Authorised Distributor** connected to the [**DNO’s Distribution System**](#DNOsDistributionSystem)**.** | |
| **Entry Point** | The point at which an **Embedded Generator** or other **Users** connect to the [**DNO’s Distribution System**](#DNOsDistributionSystem)where power flows into the [**DNO’s Distribution System**](#DNOsDistributionSystem) under normal circumstances**.** | |
| **Equipment** | **Plant** and/or **Apparatus.** | |
| **Electricity Supply Industry (ESI)** | Electricity Supply Industry. | |
| **Event** | An unscheduled or unplanned (although it may be anticipated) occurrence on or relating to a **System** including, without limiting that general description, faults, incidents and breakdowns and adverse weather conditions being experienced. It includes an occurrence where the compliance of **Customer’s** **Equipment** with this **Distribution Code** or where relevant the **Grid Code** is or might be compromised. | |
| **Existing Offshore Generators** | A **Generator** with a **Power Station**y located in offshore waters that has an agreement for connection to the **DNO’s Distribution System** via lines of 132kV or above that are wholly or partly in offshore waters. | |
| **Exit Point** | The point of supply from the [**DNO’s Distribution System**](#DNOsDistributionSystem)to a **User** where power flows out from the [**DNO’s Distribution System**](#DNOsDistributionSystem) under normal circumstances**.** | |
| **External Interconnection** | A connection to aparty outside the **Total System.** | |
| **Fault Level** | Prospective current that would flow into a short circuit at a stated point in the **System** and which may be expressed in kA or, if referred to a particular voltage, in MVA. | |
| **Feasibility Project Planning Data** | Data relating to a proposed **User Development** until such time that the **User** applies for a **Connection Agreement**. | |
| **Frequency** | The number of alternating current cycles per second (expressed in Hertz) at which a **System** is running. | |
| **Fuel Security Code** | The document of that title designated as such by the **Secretary of State**, as from time to time amended. | |
| **G59 3/7 Modification** | The modification to the **Distribution Code** to implement Engineering Recommendation G59 Issue 3 Amendment 7,as approved by the **Authority** on 5 August 2019. | |
| **Generator** | A person who generates electricity under licence or exemption under the **Act.**  A person who has connected a **Power Generating Module(s)** in accordance with Item 8 Engineering Recommendation G83/2 (“Recommendations For The Connection of Type Tested Small-Scale Embedded Generators (Up To 16 A Per Phase) in Parallel With Public Low-Voltage Distribution Networks”) or with Item 9 Engineering Recommendation G98 (Requirements for the connection of type-tested micro generators (up to and including 16 A per phase) in parallel with public low voltage distribution networks on or after 27 April 2019) and where this is (are) their only **Power Generating Module(s)**, is not classed as a **Generator** for the purpose of this **Distribution Code.** | |
| **Great Britain or** **GB** | “The landmass of England & Wales and Scotland, including internal waters”. | |
| **Grid Code** | The code which **NGESO** is required to prepare under its **Transmission Licence** and have approved by the **Authority** as from time to time revised with the approval of, or by the direction of, the **Authority**. | |
| **Grid Supply Point** | Any point at which electricity is delivered from the **National Electricity Transmission System** to the [**DNO’s Distribution System**](#DNOsDistributionSystem)**.** | |
| **High Voltage (****HV)** | A voltage exceeding1000 Volts**.** | |
| **High Voltage Customer** | A **Customer** connected to a part of the **Distribution System** which is operating at **HV**. | |
| **Implementing Control Person** | Pursuant to DOC8, the person implementing **Safety Precautions** at an Operational Boundary. | |
| **Individual DNO Standard** | A standard adopted by an individual **DNO** andwhich is published as such by an individual **DNO** and that has a material effect on **Users.** |
| **IEC** | International Electrotechnical Commission. | |
| **Independent Distribution Network Operator** | A **DNO** that does not have a Distribution Services Obligation Area in its **Distribution Licence** and is not an ex Public Electricity Supplier | |
| **Industry Codes Technical Group (****ITCG)** | A standing body comprised of representatives of all the **DNO**s to carry out the functions referred to in its own Constitution and Rules | |
| **IP Completion Day** | 31 December 2020 as defined in Section 39 of the European Union (Withdrawal Agreement) Act 2020. | |
| **Isolated** | Disconnected from associated **Plant** and **Apparatus** by an **Isolating Device(s)** in the isolating position or by adequate physical separation or sufficient gap. | |
| **Isolating Device** | A device for rendering **Plant** and **Apparatus** **Isolated.** | |
| **Joint System Incident** | Is an **Event** occurring on the **System** or installation, which, in the opinion of the **DNO**, has or may have a serious and/or widespread effect on the **System** or installation of another. | |
| **Large Power Station** | As defined in the **Grid Code**. | |
| **Legally Binding Decisions of the European Commission and/or the Agency** | Any relevant legally binding decision or decisions of the European Commission and/or the Agency, but a binding decision does not include decision that is not, or so much of a decision as is not, **Retained EU Law**. | |
| **Load Managed Area** | Has the meaning given to that term in the **Distribution Use of System Agreement**. | |
| **Low Voltage or LV** | In relation to alternating current, a voltage exceeding 50 voltsbut not exceeding 1 000 volts**.** | |
| **Manufacturers’ Information** | Information in suitable form provided by a manufacturer in order to demonstrate compliance with one or more of the requirements of the **Distribution Code**. Where equipment certificate(s) as defined in **Retained EU Law** (Commission Regulation (EU) 2016/631, (Network Requirements for Connections of Generators)), or (Commission Regulation (EU) 2016/1388 (Network Code on Demand Connection)) cover all or part of the relevant compliance points, the equipment certificate(s) demonstrate compliance without need for further evidence for those aspects within the scope of the equipment certificate | |
| **Maximum Generation** | The additional output obtainable from a **Power Generating Module** in excess of **Registered Capacity.** | |
| **Medium Power Station** | A **Power Station** which is connected to a **System** notionally connected to a **Grid Supply Point** in **NGET**’s Transmission Area with a **Registered Capacity** of 50 MW or more but less than 100 MW.  For the avoidance of doubt an installation comprising one or more **DC Converters** with an aggregate capacity of between 50 and 100MW will be classed as a Medium Power Station for the purposes of this Distribution Code. | |
| **Meter Operation Code of Practice Agreement** | The agreement of that name, as amended from time to time. | |
| **Meter Operator** | A person, registered with the Registration **Authority**, appointed by either a **Supplier** or **Customer** to provide electricity meter operation services. (This **Distribution Code** does not place any direct obligation on **Meter Operators** other thanthrough theappointment by eithera **Supplier** or a **Customer**.) | |
| **Minimum Generation** | The minimum output which a **Power Generating Module** can reasonably generate as registered under the **Distribution Data Registration Code**, | |
| **National Electricity Transmission System** | The **Onshore Transmission System** and **Offshore Transmission System .** | |
| **National Electricity Transmission System Demand** | As defined in the **Grid Code**. | |
| **NGESO** | National Grid Electricity System Operator Limited. | |
| **NGET** | National Grid Electricity Transmission plc. | |
| **Normal Operating Frequency** | The number of Alternating Current cycles per second, expressed in Hertz at which the **System** normally operates, ie 50 Hertz. | |
| **Offshore** | Means in Offshore Waters, as defined in Section 90(9) of the Energy Act 2004. | |
| **Offshore Transmission Implementation Plan** | As defined in the **Transmission Licence** | |
| **Offshore Transmission System Operator (****OTSO)** | The **NGESO** acting as operator of an **Offshore Transmission System .** | |
| **Offshore Transmission Licensee** | The holder of a licence granted under Section 6 (1)(b) of the **Act** excluding **NGET**,**NGESO**, **SPT** and **SHETL**. | |
| **Offshore Transmission System** | Has the meaning set out in the **Grid Code**. | |
| **Onshore Transmission Licensees** | **NGET**, **SHETL** and **SPT** | |
| **Onshore Transmission System** | Has the meaning set out in the **Grid Code.** | |
| **Operation** | A scheduled or planned action relating to the operation of the **System.** | |
| **Operation Diagrams** | Diagrams which are a schematic representation of the**HV Apparatus** and the connections to all external circuits at a[**Connection Point**](#ConnectionPoint)**,** incorporating its numbering, nomenclature and labelling. | |
| **Operational Boundary** | The boundary between the **Apparatus** operated bythe **DNO** or a **User** and the **Apparatus** operated by **Other Authorised Distributor(s)** or other **User(s)**, as specified in the relevant **Site Responsibility Schedule**. | |
| **Operational Data (****OD)** | Information to be supplied pursuant to the **Distribution Operating Codes** and as set out in the Schedules to the **DDRC**. | |
| **Operational Day** | The period from 0500 hours on one day to 0500 on the following day. | |
| **Operational Effect** | Any effect on the **Operation** of the relevant other **System** which causes the **National Electricity Transmission System** or **DNO’s Distribution System**or the **System** of the other **User** or **Users,** as the case may be, to operate (or be at a materially increased risk of operating) differently from the way in which they would or may have operated in the absence of such an effect. | |
| **Operational Planning** | The procedure set out in **Distribution Operating Code** DOC2 comprising, through various timescales, the co-ordination of planned outages of **Users’ Plant** and **Apparatus**. | |
| **Operational Planning Phase** | The period from 8 weeks to 3 years inclusive ahead of real time operation. | |
| **Other Authorised Distributor** | A **User** authorised by Licence or exemption to distribute electricity and having a **User Distribution System** connected to the **[DNO’s Distribution System](#DNOsDistributionSystem).** | |
| **Output Usable or OU** | That portion of **Registered Capacity** which is not unavailable due to a **Planned Outage** or breakdown. | |
| **Ownership Boundary** | The electrical boundary between the **Equipment** owned by one **DNO** or **User** and the **Equipment** owned by another **User**. | |
| **Partial Shutdown** | The same as a **Total Shutdown** except that all generation has ceased in a separated part of the **Total System** and there is no electricity supply from **External Interconnections** or other parts of **Total System** to that part of the **Total System** and, therefore, that part of the **Total System** is shutdownwith the result that it is not possible for that part of the **Total System** to begin to function again without **NGESO’s** directions relating to a **Black Start**. | |
| **Peak Demand** | The highest level of **Demand** recorded/forecast for a 12‑month period, as specified in the relevant sections of the **Distribution** **Code**. | |
| **Phase (Voltage) Unbalance** | The ratio (in percent) between the rms values of the negative sequence component and the positive sequence component of the voltage. | |
| **Planned Outage** | An outage of a **Power Generating Module**, its contsitutent units (eg generating transformer) or parts, or a relevant part of a **User**’s **System** or of part of the **National Electricity Transmission System** or of part of a **Distribution System.** | |
| **Plant** | Fixed and movable items used in the generation and/or supply and/or transmission of electricity other than **Apparatus**. | |
| **Power Factor** | The ratio of [**Active Power**](#ActivePower) to apparent power (apparent power being the product of voltage and alternating current measured in volt-amperes and standard multiples thereof, ie VA, kVA, MVA). | |
| **Power Generating Module** | Any **Apparatus** which produces electricity | |
| **Power Island** | **Power Generating Module**s at an isolated **Power Station**, together with complementary local **Demand.** In Scotland a **Power Island** may include more than one **Power Station**. | |
| **Power Station** | A **Power Generating Facilit**y | |
| **Power Generating Facility** | An installation comprising one or more **Power Generating Module**s (even where sited separately) and/or controlled by the same **Generator** and which may reasonably be considered as being managed as one **Power Generating Facility** | |
| **Preliminary Project Planning Data** | Data relating to a proposed **User Development** at the time the **User** applies for a **Connection Agreement** but before an offer is made. | |
| **Programming Phase** | The period between the **Operational Planning Phase** and the **Control Phase**. It starts at the 8 weeks ahead stage and finishes at 17:00 on the day ahead of real time | |
| **Protection** | The provisions for detecting abnormal conditions in a **System** and initiating fault clearance or actuating signals or indications. | |
| **Qualifying Standard** | Electrical standards in use by **DNO**s and included in the **Distribution Code Review Panel’s** governance procedures, and falling into one of the categories below:   1. **Annex 1 Standard** 2. **Annex 2 Standard** 3. **Individual DNO Standard** |
| **Reactive Power** | The product of voltage and current and the sine of the phase angle between them which is normally measured in kilovar (kVAr) or megavar (MVAr). | | |
| **Registered Capacity** | The normal full load capacity of a **Power Generating Module** as declared by the **Generator** less theMW consumed when producing the same; ie for all **Generators**, including **Customer With Own Generation,** this will relate to the maximum level of **Active Power** deliverable to the **[DNO’s Distribution System](#DNOsDistributionSystem)**.  For **Power Generating Modules** connected to the **DNO’s Distribution System**via an inverter, the inverter rating is deemed to be the **Power Generating Module’s** rating. | | |
| **Registered Data** | Data referred to in the schedules to the **Distribution Data Registration Code.** | | |
| **Remote Transmission Assets.** | Any **Plant** and **Apparatus** or meters owned by **NGET** which:   1. are **Embedded** in the **DNO’s Distribution System** and which are not directly connected by **Plant** and/or **Apparatus** owned by **NGET** to a sub-station owned by **NGET**; and 2. are by agreement between **NGET** and the **DNO** operated under thedirection and control of the **DNO.** | | |
| **Requesting Control Person** | Pursuant to DOC8, the person requesting **Safety Precautions** at an **Operational Boundary**. | | |
| **Retained EU Law**: | As defined in the European Union (Withdrawal) Act 2018 as amended by the European Union (Withdrawal Agreement) Act 2020. | | |
| **Retrospective Modification** | A modification to the **Distribution Code** shall be a **Retrospective Modification**, if the modification is either:   1. Stated to be a **Retrospective Modification** in the relevant Distribution Code Modification Report to the **Authority**; or 2. A **G59/3-7 Modification**. | | |
| **Safety From The System** | That condition which safeguards persons working on or testing **Apparatus** from the dangers which are inherent in working on items of **Apparatus** which are used separately or in combination in any process associated with the generation, transmission or distribution of electricity. | | |
| **Safety Management System** | The procedure adopted by the **DNO** or a **User** to ensure the safe **Operation** of the **System** and the safety of personnel required to work on that **System**. | | |
| **Safety Precautions** | The procedures specified within a **Safety Management System.** | | |
| **Safety Rules** | The rules or procedure of the **DNO** or a **User** to ensure **Safety From The System**. | | |
| **Scheduling** | The procedure for determining intended usage of **Power Generating Module**s**.** | | |
| **Secretary of State** | Has the same meaning as in the **Act**. | | |
| **SHETL** | Scottish Hydro-Electric Transmission Limited | | |
| **Significant Incident** | An **Event** on the **Transmission System** or [**DNO’s Distribution System**](#DNOsDistributionSystem)or in a **User’s System** which has or may have a significant effect on the **System** of others. | | |
| **Site Responsibility Schedule** | A schedule defining the ownership, operation and maintenance responsibility of **Plant** and **Apparatus** at a **Connection Point** of the **DNO**. | | |
| **Small Power Station** | As defined in the **Grid Code**. | | |
| **SPT** | Scottish Power Transmission Limited | | |
| **Standard Planning Data (****SPD)** | General information required by the **DNO** under the **Distribution Planning Code**. | | |
| **Standby** | The supply of electricity by a **Supplier** to a **Customer** on a periodic or intermittent basis to make good any shortfall between the **Customer’s** total supply requirements and that met by his own generation. | | |
| **Superimposed Signals** | Those electrical signals present on a **Distribution System** for the purposes of information transfer. | | |
| **Supplier** | (a) A person supplying electricity under an Electricity Supply Licence; or  (b) A person supplying electricity under exemption under the **Act**; in each case acting in its capacity as a supplier of electricity to **Customers** in **Great Britain** . | | |
| **Supply Agreement** | An agreement for the supply of electricity made between a **Supplier** and a consumer of electricity. | | |
| **System** | An electrical network running at various voltages. | | |
| **System Control** | The administrative and other arrangements established to maintain as far as possible the proper safety and security of the **System**. | | |
| **System Incident Centre** | A centre set up by the **DNO** pursuant to the declaration of a **Joint System Incident**, under DOC 9, to assume control of the incident. | | |
| **System Stability** | The ability of the **System** for a given initial operating condition to regain a state of operating equilibrium after being subjected to a given disturbance, with most **System** variables being within acceptable limits so that practically the whole **System** remains intact. | | |
| **System Test** | That test or tests which involve simulating conditions or the controlled application of irregular, unusual or extreme conditions on the **Total System** or any part of it, but not including routine testing, commissioning or recommissioning tests. | | |
| **Test Coordinator** | A suitably qualified person appointed to coordinate **System Test** pursuant to DOC12. | | |
| **Test Panel** | A panel, the composition of which is detailed in DOC12, and which will be responsible for formulating **System Test** proposals and submitting a test programme. | | |
| **Top - Up** | The supply of electricity by any **Supplier** to the **Customer** on a continuing or regular basis to make good any shortfall between the **Customer’s** total supply requirements and that met from other sources. | | |
| **Total Shutdown** | The situation existing when all generation has ceased and there is no electricity supply from **External Interconnections** and therefore the **Total System** has shutdown with the result that it is not possible for the **Total System** to begin to function again without **NGESO’s** directions relating to a **Black Start** . | | |
| **Total System** | The **National Electricity Transmission System** and all **Systems** of **Users** of this **National Electricity Transmission System** in **Great Britain and Offshore.** | | |
| **Transmission Licence** | The licence granted under Section 6(1)(b) of the **Act**. | | |
| **Transmission Licensee** | Any **Onshore Transmission Licensee**, **Offshore Transmission Licensee** or **NGESO**. | | |
| **Transmission System** | Has the same meaning as the term "licensee's transmission system” in the **Transmission Licence** of a **Transmission Licensee**. | | |
| **U****nmetered Supply** | A supply of electricity to premises which is not, for the purposes of calculating charges for electricity supplied to the **Customer** at such premises, measured by metering equipment. | | |
| **User** | A term used in various sections of the **Distribution Code** to refer to the persons using the **[DNO’s Distribution System](#DNOsDistributionSystem)**, more particularly identified in each section of the **Distribution Code**, including for the avoidance of doubt the **OTSO** for **Embedded Transmission System.** | | |
| **User Development** | Either a **User's Plant** and/or **Apparatus** and/or **System** to be connected to the **DNO’s Distribution System**, or a modification relating to a **User's Plant** and/or **Apparatus** and/or **System** already connected to the **DNO’s Distribution System**, or a proposed new connection or modification to the connection within the **User’s System**. | | |
| **Voltage Reduction** | The method to temporarily control **Demand** by reduction of **System** voltage. | | |
| **Weekly Average Cold Spell (ACS) Condition** | 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.** | | |

**DISTRIBUTION** **OPERATING CODE 6**

# DOC6 Demand CONTROL

DOC6.1 **Introduction**

DOC6.1.1 This **Distribution Operating Code** DOC6 is concerned with the provisions to be made by the **DNO** and **Users** with **Systems** connected to the **DNO’s Distribution System** in certain circumstances, to permit reductions in **Demand** in the event of insufficient output from **Power Generating Module**s**,** and transfers from **External Interconnections** being available to meet **Demand** or to avoid disconnection of **Customers** or in the event of breakdown and/or operating problems (such as in respect of **System Frequency**, **System** voltage levels or **System** thermal overloads) on any part of the **National Electricity Transmission System** and/or the **DNO’s Distribution System**.

DOC6.1.2 This **Distribution Operating Code** deals with the following methods of **Demand Control**:-

1. **Customer Voltage Reduction**, initiated by the **DNO** (other than following an instruction from **NGESO**);
2. **Customer Demand** reduction by disconnection initiated by the **DNO** (other than following an instruction from **NGESO**);
3. **Customer Demand** reduction instructed by **NGESO**;
4. Automatic low frequency **Demand** disconnection; or
5. Emergency manual **Demand** disconnection.

The term “**Demand Control**” is used to describe any or all of these methods of achieving a **Demand** reduction.

Data relating to **Demand Control** should be expressed in MW.

DOC6.1.3 The situation where it is necessary to reduce **Demand** due to Civil Emergencies is dealt with in **Distribution Operating Code**, DOC9.

The Electricity Supply Emergency Code issued by the lead government department for energy emergencies (as amended from time to time) provides that in certain circumstances consumers are given a certain degree of “protection” when rota disconnections are implemented pursuant to a direction under the Energy Act 1976. No such protection can be given under the **Grid Code** or this section of the **Distribution Code** except:

1. In relation to **Customer Demand** reduction by disconnection initiated by the **DNO** in accordance with DOC6.1.2 (b); and
2. In relation to those **Demand** disconnection stages referenced in DOC6.4.3 (a), DOC6.4.3 (b)(ii) and DOC6.4.5.

In which case protection may be given, where technically feasible, to pre-designated protected sites, although, even in these situations, protection cannot be guaranteed. The list of pre-designated protected sites is compiled and kept up to date by **DNOs** in accordance with the terms set out in the Electricity Supply Emergency Code.

DOC6.1.4 Connections between any **Power Station** comprising **Power Generating Module(s)** which comprise or contain **BM Units** which are active (ie submitting bid-offer data) in the **Balancing Mechanism** and a **DNO’s Distribution System** will not, as far as is possible, be disconnected by a **DNO** pursuant to the provisions of DOC6 insofar as that would interrupt supplies.

(a) For the purpose of operation of the **Power Station** (including start-up and shutting down).

(b) For the purposes of keeping the **Power Station** in a state that it could be started-up when it is off–load for ordinary operational reasons.

(c) For the purpose of compliance with the requirements of a Nuclear Site Licence.

**Demand Control** pursuant to this **DOC6** therefore applies subject to this exception.

DOC6.1.5 The control of **Demand Control** between the **DNO’s Distribution System** andthe **National Electricity Transmission System** will be carried out in accordance with Operating Code of the **Grid Code** and is outwith the scope of this **Distribution Operating Code**.

DOC6.2 **Objective**

To establish procedures to enable the **DNO**, following an instruction of **NGESO** or otherwise, to achieve reduction in **Demand** that will either avoid or relieve operating problems on the **National Electricity Transmission System** and/or the **DNO’s Distribution System**, in whole or in part in a manner that does not discriminate against or unduly prefer any one or any group of **Suppliers** or their **Customers** or **Other Authorised Distributors** in accordance with the **Distribution Licence**.

DOC6.3 **Scope**

This **Distribution Operating Code** will apply to the **DNO** and to **Users** which in this **Distribution Operating Code** means:

(a) **Customers** (it is not intended that the **Distribution Code** shall apply to small **Customers** individually).

(b) **Embedded Generators**.

(c) **Other Authorised Distributor** connected to the **DNO’s Distribution System**.

DOC6.3.2 Implementation of **Demand Control** by the **DNO** may affect all **Suppliers’ Customers** and where applicable, contractual arrangements between **Suppliers** and their **Customers** may need to reflect this.

DOC6.4 **Operational System Load Reduction Arrangements**

DOC6.4.1 The **DNO** will arrange within its **DNO’s Distribution System** a scheme to reduce load in a controlled manner by reducing voltage and/or by disconnecting **Customers** and/or **Users**.

DOC6.4.2 A **System** of warnings will be contained within the load reduction arrangements to give notice, wherever practical, of impending implementation.

DOC6.4.3 The **DNO** will arrange to have available within the **DNO’s Distribution System**, four or five stages of **Demand Control**.

1. Where four stages are made available they shall comprise four **Demand** disconnection stages each of which can reasonably be expected to deliver between four and six percent **Demand** reduction.
2. Where five stages are made available they shall comprise:
3. Two **Voltage Reduction** stages between two and four percent, each of which can reasonably be expected to deliver around 1.5 percent **Demand** reduction; and
4. Three **Demand** disconnection stages, each of which can reasonably be expected to deliver between four and six percent **Demand** reduction.

As stated in DOC6.1.3, protection may be given, where technically feasible, in relation to those **Demand** disconnection stages referred to in DOC6.4.3 and DOC 6.4.5, although, even in these situations protection cannot be guaranteed.

DOC6.4.4 The groups will be arranged so that disconnection can take place uniformly across the **DNO’s Distribution System**, and as far as practicable uniformly between **Grid Supply Points**.

DOC6.4.5 The **DNO** will arrange to have available a scheme to implement a further four stages of **Demand Control**, each of which can reasonably be expected to deliver between 4% and 6% **Demand** reduction, upon receipt of a suitable warning from **NGESO** which will be issued by 1600 hrs on the previous day.

The **DNO** will arrange to have available a scheme to implement further twelve stages of **Demand Control**, each of which can reasonably be expected to deliver between 4% and 6% **Demand** reduction.

DOC6.4.6 **Embedded Generators**, **Suppliers**, **Customers** and **Other Authorised Distributors** connected to the **DNO’s Distribution System** will need to be considered in the preparation of **DNO’s** **Demand Control** schemes.

DOC6.4.7 The **DNO** shall issue instructions to such **Users** of the **DNO’s Distribution System** who are required to disconnect or reconnect and the **User** shall carry out the instructions without delay.

DOC6.4.8 Once a disconnection has been applied at the instruction of the **DNO**, the **User** shall not reconnect until the **DNO** instructs the **User** to do so in accordance with this **Distribution Operating Code.**

DOC6.4.9 The **Users** shall abide by the instructions of the **DNO** with regard to reconnection under this **Distribution Operating Code** without delay.

DOC6.4.10 Where disconnection is envisaged by the **DNO** to be prolonged, the **DNO** may utilise disconnection rotas where 5 per cent groups are interchanged to ensure (so far as practicable) equitable treatment of **Customers**, provided that the proportion of total **Demand** disconnected at all times does not change.

DOC6.5 **Automatic Low Frequency Demand Disconnection**

DOC6.5.1 The **DNO** shall provide automatic low frequency disconnection in stages by tripping relays to disconnect at least 40% of the **DNO’s Distribution System Peak Demand** in Scotland and 60% of the **DNO’s Distribution System Peak Demand** in England and Wales (based on the winter peak value), in order to seek to limit the consequences of the loss of a major source of generation or an **Event** on the **National Electricity Transmission System** which leaves part of the **Total System** with a generation deficit.

DOC6.5.2 The **Demand** subject to automatic low frequency disconnection shall be split into discrete blocks. The number, location and size of the blocks and the associated low frequency settings will be as specified by the **DNO.** The intention is that the distribution of the blocks will be such as to give a reasonably uniformapplication throughout the **DNO’s Distribution System**, but may take into account any operational requirements and the essential nature of certain **Demand.**

DOC6.5.3 Where conditions are such that, following automatic low frequency disconnection, it is not possible to restore all or a great proportion of those **Customers** so disconnected within a reasonable period of time, the **DNO** may instruct, at any time, further manual load disconnection and instruct a portion of the **Customers** which were disconnected by automatic low frequency disconnection to be restored in order that any further fall in **Frequency** will be contained by operation of automatic low frequency disconnection.

DOC6.5.4 Once an automatic low frequency disconnection has taken place, it shall not be reconnected until the **DNO** instructs to do so in accordance with this **Distribution Operating Code**.

DOC6.5.5 Each **Supplier** and **Other Authorised Distributor** shall abide by the instructions of the **DNO** with regard to reconnection under this **Distribution Operating** **Code** without delay.

DOC6.5.6 In addition, **Embedded Generators** may wish to disconnect, automatically or manually, their plant from the **System** to which it is connected at certain frequency levels. Any such disconnection will be agreed with the **DNO** on connection to the **DNO’s Distribution System** in accordance with the **Distribution Planning and Connection Code**.

DOC6.6 **Emergency Manual Disconnection of Demand**

DOC6.6.1 The **DNO** shall make such arrangements as are necessary to enable it to disconnect **Customers** under emergency conditions irrespective of frequency.

DOC6.6.2 The **DNO** shall annually, by the end of September, prepare schedules with details, on a **Grid Supply Point** basis and including arrangements with **Users**, of the percentage block of **Demand** at that **Grid Supply Point** available for manual disconnection, the method of disconnection to be used and the timescale of the implementation of disconnection of each block.

DOC6.6.3 The scheme will be designed to be called into operation irrespective of **System Frequency**, and to be implemented in predetermined timescales to disconnect **Demand** progressively.

DOC6.6.4 **Customers** and **Other Authorised Distributors** may be required to provide manual disconnection facilities. Where required by the **DNO** to disconnect load, each **Customer** or **Other Authorised Distributor** shall abide by the instructions of the **DNO** with regard to disconnection under this **Distribution Operating Code** without delay and the instructed disconnection must be completed without undue delay.

DOC6.6.5 Once a disconnection has been applied at the instruction of the **DNO** reconnection shall not be applied until the **DNO** instructs it to be done in accordance with this **Distribution Operating Code**.

DOC6.6.6 Each **Customer** and **Other Authorised Distributor** shall abide by the instructions of the **DNO** with regard to reconnection under this **Distribution Operating** **Code** without delay.

DOC6.7 **Co-ordination of Actions**

DOC6.7.1 Where **Demand Control** is exercised by the **DNO** in order to safeguard the **DNO’s Distribution System** the **DNO** will liaise with and inform **Users** accordingly so far as is practical.

DOC6.7.2 Where **Demand Control** is exercised by the **DNO** on instruction or request from **NGESO** in order to safeguard the **Total System** then the **DNO** is required to respond to these requests promptly but will liaise with and inform other **Users** so far as is practical.

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| --- | --- | --- |
| 54 | TBC | Update to DOC6 to allow protection for sites when implementing demand disconnection where technically feasible.  Amendments to clauses:   * DOC6.1.2 * DOC6.1.3 * DOC6.4.3 |
|  | TBC | Minor updates to DOC 6.1.3 and DOC 6.4.3 consequent on Modification GC0162 which clariies the timing of demand disconnection levels beyond 20%. |

END