



Open Networks Project

Terms and Definitions

17 September 2019

Energy Networks Association

Document Ref: WS2P3JUL18

Restriction: Published

Document Control

Version Control

Version	Issue Date	Author	Comments
1.1	25 th July 2018	ENA	Document finalised following review at Workstream 2 meeting.
2.1	17 th September 2019	ENA	Updated to align with definitions from the Charging Futures SCR Glossary.

Table of Contents

Introduction and Scope	1
Industry Codes and Sources of Detailed Definitions.....	1
GB Network Voltage Levels	2
Groups of Definitions.....	2
Terms & Definitions.....	4

Introduction and Scope

This document is an output of the Open Networks project to provide more accessible definitions for terms that are used in the Open Networks project and related activities. It includes definitions for many of the terms that are being used in areas such as the connection of resources to distribution networks and the provision of services from Distributed Energy Resources (DER) to support transmission and distribution network operation.

This Terms and Definitions document is intended to be a reference document for network company representatives and stakeholders to use to provide clarity when discussing the use of the distribution and transmission networks in Great Britain. It will be maintained and updated by the Open Networks project team for the duration of the project. On completion of the Open Networks project, the document would be maintained and periodically updated by the ENA.

This version (2.1) includes over 200 terms that have been identified by stakeholders, by members of the 2018 Workstream 2 Product 3 team or by members of other Open Networks product teams. It also includes terms identified and used in the Charging Futures work that is part of Ofgem's ongoing Significant Code Review (SCR) into access arrangements and forward looking charges. Updates of this document will be issued as further terms are identified for inclusion or as definitions are updated.

Industry Codes and Sources of Detailed Definitions

Many of the Terms and Definitions used at present are already captured in wider industry code and contractual documents. These industry documents are summarised in Table 1. Often the definitions provided in these documents are difficult to interpret quickly as they use legalistic language, are wordy and they refer to other defined terms. This is necessary to provide a precise understanding of code and contractual obligations.

Where this Terms and Definitions document provides briefer plain English definitions for terms that are defined elsewhere in code documents, cross-references are also provided.

Table 1 Wider Industry Code and Contractual Documents

Codes & Contractual Documents	Abbrev	Description
Balancing and Settlement Code	BSC	The BSC covers governance of electricity balancing and settlement in Great Britain.
Common Connection Charging Methodology	CCCM	The CCCM is the methodology used to set charges for connection to distribution networks in Great Britain.
Competition in Connections Code of Practice	CiC COP	The CIC COP governs how Distribution Network Operators provide services to facilitate competition in the provision of connections to electricity distribution networks in Great Britain.
Connection and Use of System Code	CUSC	The CUSC is the contractual framework for connection to, and use of, the transmission system in Great Britain.
Distribution Code	D-Code	The D-Code covers technical aspects relating to the connection to, and use of, distribution networks in Great Britain.
Distribution Connection and Use of System Agreement	DCUSA	The DCUSA is a multi-party contract covering use of electricity distribution networks in Great Britain.
Electricity Safety, Quality and Continuity Regulations	ESQCR	The ESQCR must be met by industry participants to protect the general public and consumers from the dangers of electricity installations.
Grid Code	G-Code	The G-Code covers technical aspects relating to the connection to, and use of, transmission networks in Great Britain.
National Terms of Connection	NTC	The NTC are the terms and conditions covering connection to electricity distribution networks in Great Britain.
National Electricity Transmission System Security and Quality of Supply Standard	NETS SQSS	The NETS SQSS is a set of criteria covering the planning and operation of the transmission network in Great Britain.

*Note: The CUSC is a highly contractual document of over 1,170 pages. Terms and definitions often interact with other multiple terms and conditions link within a topic area. It is therefore not possible to capture all potentially relevant CUSC terms within a document of this nature.

GB Network Voltage Levels

One area where there are different definitions in place across industry documentation, and internationally, is the terminology used to describe transmission and distribution voltage levels. There are several definitions of particular voltage levels in GB industry codes and related documents (e.g. DCUSA, Grid Code, Electricity Safety, Quality and Continuity Regulations).

More widely, the international standard IEC60038 uses the following terminology to describe Alternating Current (AC) voltage ranges but these terms are not adhered to in GB documentation.

IEC60038 Voltage Ranges:

- Low Voltage covers nominal voltages from 50V to 1000V
- Medium Voltage covers nominal voltages above 1kV up to 35kV
- High Voltage covers nominal voltages above 35kV up to 230kV
- Extra High Voltage covers higher voltages

Table 2 summarises the main voltages used on GB networks.

Table 2 Main Voltage Levels used for GB Distribution and Transmission

Voltage	Terminology	Description
400kV	Transmission, Supergrid Voltage	The highest AC voltage used on the GB transmission network. Large-scale generators and supply points are connected at this voltage.
275kV	Transmission, Supergrid Voltage	Much of the early transmission network was constructed at this voltage and there are 275kV substations and lines in urban areas including London. Generators and supply points are connected at this voltage.
132kV	Transmission/ Distribution	Designated as Transmission in Scotland. Designated as Distribution in England and Wales.
66kV	Distribution, EHV	
33kV	Distribution, EHV	
11kV	Distribution, HV	
6.6kV	Distribution, HV	
3.3kV	Distribution, HV	
400V	Distribution, LV	Local street level distribution to domestic/retail properties

Groups of Definitions

The following table of terms and definitions includes a column headed "Area" to indicate in what context the particular term is more likely to appear. These areas include Charging, Connection Capacity, Connection Process, Energy Trading and Settlement, Flexible Connections (curtailed connections), General Contractual Terms, Industry Terms, Legal, Operations and User Commitment. Some of these groupings are further explained below.

Terms relating to Flexible Connections

Flexible Connections is a term used to describe connections where input or output might be curtailed due to network constraints, and solutions have been developed to provide quicker and more efficient connections. Flexible Connections should not be confused with Flexibility Markets and Flexibility Services. With the rapid development of generation and other resources at distribution voltages, existing network capacity is often insufficient for distribution network companies to connect all of these resources in a totally unrestricted way without major network uprating being carried out. As this network uprating can be costly and can take a long time to complete, network companies have explored different approaches with customers to try to make the best use of existing network capacity. Many terms are used in this context.

For example, the inability of a network to enable all resources to operate at the same time leads to **"Constraints"** in network capacity and **"Constrained Connection"** arrangements. The reductions in output that then result for certain customers are referred to as **"Curtailement"** and network companies will often carry out **"Curtailement Assessments"** when they are developing connection arrangements for customers.

Several approaches have been used by distribution network companies to make the best use of existing capacity for customers where network capacity is limited. These have led to new terms being used to describe connection arrangements such as **"Flexible Connections"**, **"Managed Connections"**, **"Timed Connections"** and **"Active Network Management"**.

Other terms including **"Firm"** and **"Unfirm"** (or **"Non-firm"**) are also widely used in a more general way to describe the ongoing certainty of network capacity being available for a particular connection arrangement. And the terms **"N-1"** and **"N-2"** are often used to describe the robustness of a particular connection arrangement to network events that lead to circuits not being in service.

Terms relating User Commitment

User Commitment is the means through which National Grid indemnifies itself against the risk of unnecessary transmission investment in the event that a generator terminates its agreements or makes a change which has a material effect on the required works.

Cancellation Charges are applicable on certain elements of work following the cancellation of, or change to, an agreement which results in a material change to the required works. These are defined further within the Connection and use of System Code (CUSC).

There are a number of related terms defined in the CUSC including: **"Actual Attributable Works Cancellation Charge"**, **"Annual Wider Cancellation Amount Statement"**, **"Attributable Works Cancellation Charge"**, **"Fixed Attributable Works Cancellation Charge"**, **"Notification of Fixed Attributable Works Cancellation Charge"**, **"Pre Trigger Amount"** and **"Wider Cancellation Charge"**.

We have not defined all of these terms in this document however the links below provide useful background and guidance on the topic.

- A Guide to Security Provision:
<https://www.nationalgrid.com/sites/default/files/documents/5652-A Guide to Security Provision.pdf>
- CMP192 Updated Guidance Document:
<https://www.nationalgrid.com/sites/default/files/documents/5638-CMP192 Updated Guidance Document.pdf>

Terms relating to Open Networks Work on DSO Models

Several terms relating to wider Open Networks work have been included. These include terms relating to the Workstream 3 DSO development work including **"Flexibility Market"**, **"Flexibility Service"**, **"Local Market"**, **"Regional Market"** and **"National Market"**.

Terms & Definitions

Term	Area	D or T	Plain English Definition	Code Ref
Abnormal Operating Conditions	Operations	D/T	<p>These are operating conditions where a network is altered from its Normal Operating Conditions, to a different 'abnormal' state.</p> <p>Abnormal Operating Conditions could include switching in or out of circuits or network assets as a result of faults or other unplanned activities.</p>	
Act	Legal	D/T	Means the Electricity Act 1989 (as amended).	Legal requirements
Activation (Dispatch)	Industry Term – DSO Models	D/T	The act of instructing a Service Provider to deliver the service contracted.	
Active Network Management (ANM)	Connection Capacity	D	<p>Active Network Management is the use of distributed control systems to continually monitor network limits, along with systems that provide signals to DER to modify outputs in line with these limits.</p> <p>Active Network Management systems are used by DNOs to protect networks that have Constraints.</p>	Also in SCR Charging Futures Glossary
Additional Load	Connection Capacity	D/T	<p>In the context of generation connected to the transmission network; Additional Load represents any electrical energy used within a Site which is not directly related to the production of electrical energy. E.g. a water treatment facility has a diesel generator onsite. The generator requires power to start it up and for its control systems. All other electrical energy demands on the site are classed as Additional Load i.e. heating, lighting, pumps....</p> <p>In the context of a connection to the Distribution Network; Additional Load is the term relating to requiring more electrical energy than the current supply agreement stipulates. E.g. a factory wishes to install a new pump. The new demand of the pump will cause the factory to exceed its current supply agreement. The difference between the new required supply capacity and the existing agreement is the Additional Load.</p>	CUSC
Adoption Agreement	Connection Process	D	If you use an Independent Connections Provider (ICP) to construct the Contestable Work for your connection, you will have to enter into an Adoption Agreement . This covers the arrangements for the Distribution Network Operator (DNO) to take over responsibility for the infrastructure installed by the ICP .	CiC COP
Agreed Export Capacity	Industry Term	D	The maximum amount of power (expressed in kW) that is permitted to flow into the Distribution System through the Connection Point , based on the capability of the network in credible demand and generation scenarios.	EREC G100
Allowed Interruption	Connection Capacity	T	An Allowed Interruption is an interruption relating to some specific circumstances listed within the Connection and Use of System Code (CUSC). Such circumstances include unplanned events (events not on the transmission system), system shutdowns, Disconnection or De-energisation (as allowed under certain parts of the CUSC), operation of System to Generator Operational Intertripping Scheme as well as some other unlikely circumstances.	CUSC
Alternative Switched (Connection)	Connection Capacity	D	A connection via a substation which will typically have two cables supplying it. In the event of a fault on one cable then	

Term	Area	D or T	Plain English Definition	Code Ref
			full supply can be restored by switching to the alternative cable.	
Apparatus	Industry Term	D/T	All equipment in which electrical conductors are used, supported or of which they may form a part.	CUSC
Application Date	Connection Process	D/T	The date upon which all required information is received in respect of an application.	CCCM
Approved Credit Rating	General Contractual Terms	D/T	A credit rating is a system that some organisations use to judge how likely it is individuals or businesses will be given credit by a lender. When carrying out business transactions between two companies; businesses will often check the other party's credit rating. The Approved Credit Rating is a pre-defined credit rating that the company is willing to proceed carrying out business with the other company. E.g. a long term debt rating of not less than BB- by Standard and Poor's Corporation	CUSC
Associated DNO Construction Agreement	Connection Process	T	Where works are required on the National Electricity Transmission System (NETS) as a consequence of the connection of Distributed Generation to a Distribution System , a Construction Agreement is required between NGET and the DNO to cover these works. This agreement will be associated with a Bilateral Connection Agreement under CUSC.	CUSC Section 10.1
Attributable Works	Connection Process	T	User Commitment is the means through which National Grid indemnifies itself against the risk of unnecessary transmission investment in the event that a generator terminates its agreements or makes a change which has a material effect on the required works. Attributable Works define the elements of work for which securities are required to be posted by the generator to cover liabilities for these elements. These are defined further within the Connection and use of System Code.	CUSC
Authorised Persons	General Contractual Terms	D	Persons authorised by a network company to undertake certain work on the Connection Equipment , metering equipment and/or the monitoring equipment.	NTC
Automatic Firm (Connection)	Connection Capacity	D	An Automatic Firm connection is an arrangement which, with the exception of a momentary De-Energisation resulting from the operation of automatic switching following a fault on any of the circuits forming part of the connection arrangement, will maintain the agreed Maximum Import Capacity or Maximum Export Capacity .	
Balancing and Settlement Code (BSC)	Energy Trading & Settlement	D/T	The Balancing and Settlement Code (BSC) covers governance of electricity balancing and settlement in Great Britain. The BSC is a legal document which defines the rules and governance for the Balancing Mechanism and imbalance settlement processes.	Also in SCR Charging Futures Glossary
Balancing Mechanism	Energy Trading & Settlement	D/T	The system of bids and offers relating to the trading of electricity to ensure that supply meets demand in real time, pursuant to the arrangements contained in the Balancing and Settlement Code .	CUSC Section 6 (6.8)
Base Load	Industry Term	D/T	The Base Load is the minimum level of demand on an electrical network over a defined span of time. E.g. Over a period of 5 years a substations demand fluctuates up and down however never falls below 1MW. As such the substation Base Load would be declared as 1MW.	
BEGA	Connection Process	T	A Bilateral Embedded Generation Agreement (BEGA) is an agreement type for embedded generators that require access to the transmission network. A BEGA will provide a	From NG document How to connect to

Term	Area	D or T	Plain English Definition	Code Ref
			generator with Transmission Entry Capacity (TEC) and allow it to operate in the energy balancing market. As a result of these rights, a generator with a BEGA must follow the Balancing and Settlement Code (BSC) and pay TNUoS charges if generation is larger than 100MW.	the National Electricity Transmission System (NETS)
BELLA	Connection Process	T	A Bilateral Embedded Licence exemptible Large power station Agreement (BELLA) is an agreement type for generators that are classed as 'large' and are smaller than 100MW. For this reason, it generally applies only in Scotland because generators smaller than 100MW and larger than 50MW in England and Wales are classed as 'medium'. A BELLA doesn't give a generator explicit access to the transmission network and it won't be able to get a generation licence, meaning that it won't have to pay TNUoS charges. Generators with a BELLA can take part in the balancing mechanism market if they wish to. They also need a contract with National Grid and a corresponding connection agreement with the DNO.	From NG document How to connect to the National Electricity Transmission System (NETS)
Bilateral Agreement	Connection Process	D/T	A Bilateral Agreement is an agreement made between 2 parties. In the context of network use, there are various types of Bilateral Agreement that cover the arrangements between network parties and connected parties. Examples in CUSC include Bilateral Connection Agreements and Bilateral Embedded Generation Agreements.	CUSC Section 1, Also in SCR Charging Futures Glossary
Budget Estimate	Industry Term	D	A Budget Estimate provides an indication of costs and is therefore subject to change. It is not open for acceptance. It can be requested in the early stages of a project, and generally only for larger capital projects. The DNO doesn't require as much information as would normally be available for a formal quote. It is based on a desktop study — the DNO is unlikely to carry out detailed designs or studies.	CCCM
Bulk Supply Point (BSP)	Connection Process	D	A supply point on the DNO Party's Distribution System representing an EHV/EHV transformation level e.g. 132/33kV.	NTC
Cancellation Charge(s)	User Commitment	T	User Commitment is the means through which National Grid indemnifies itself against the risk of unnecessary transmission investment in the event that a generator terminates its agreements or makes a change which has a material effect on the required works. Cancellation Charges are applicable on certain elements of work following the cancellation of, or change to, an agreement which results in a material change to the required works. These are defined further within the Connection and use of System Code (CUSC). There are also a number of related terms defined in the CUSC including: Actual Attributable Works, Annual Wider Cancellation Amount Statement, Attributable Works Cancellation Charge, Fixed Attributable Works Cancellation Charge, Notification of Fixed Attributable Works Cancellation Charge, Pre Trigger Amount and Wider Cancellation Charge .	CUSC
Central Volume Allocation	Energy Trading & Settlement	D/T	This is a means to determine quantities of active energy to be taken into account for the purposes of settlement in respect of Volume Allocation Units. Any Balancing Mechanism Unit that is connected to the transmission network (e.g. a large coal plant or a steel works)	CUSC, BSC

Term	Area	D or T	Plain English Definition	Code Ref
			is registered for Central Volume Allocation (CVA) . BM Units connected to distribution networks (e.g. a Supplier's customers in that area or an Embedded Generator) are normally registered for Supplier Volume Allocation (SVA).	
Charging Futures	Connection Capacity	D/T	Charging Futures is a programme to coordinate significant charging reform (on electricity access and charging arrangements), in a way where every stakeholder can equally contribute to change.	Also in SCR Charging Futures Glossary
Commercial Boundary	Connection Process	D/T	Normally, this is the boundary between a network company and a user at the higher voltage terminal of the generator step-up transformer.	CUSC
Commercial Services Agreement	Energy Trading & Settlement	D/T	An agreement with NGET to govern the provision of and payment for one or more system services.	CUSC
Communications Outages	Operations	D/T	These are instances when due to planned or unplanned circumstances there is a loss of supply or significant reduction in the reliability relating to communications between equipment or sites. E.g. during a storm a radio transmitter becomes damaged resulting in the loss of communications to a Generator Site.	
Company's Equipment	General Contractual Terms	D	Company's Equipment means any electrical assets, which are owned/operated and maintained by the network company, and which have been installed to provide an electrical connection between the Distribution System and a customer to import and/or export electricity.	NTC
Company's Premises	General Contractual Terms	D	A specific reference in the National Terms of Connection . Land or buildings owned by the network company.	NTC
Competition in Connections (CIC)	Connection Process	D	Most of the work to connect new customers to the existing Distribution System (such as housing developments, retail parks or generation connections) can be carried out by either the distributor or an accredited Independent Connections Provider (ICP) . Once completed the new assets will be adopted by a licensed distributor.	CCCM
Complex-Site	Energy Trading & Settlement	D	A term used in metering where energy volumes for a particular site are not simply derived from normal meter readings. A Complex Site is used in BSC documentation to describe a site where the total import volumes or export volumes for a site are derived from the use of a mathematic rule consisting of either: <ul style="list-style-type: none"> the aggregation of raw metered volumes recorded by multiple Settlement Meters on the site; or the netting of metered volumes within a site recorded by non-boundary point metering from the metering equipment recording metered volumes at the point of connection to the distributor. <p>The aggregation rule is captured on a complex site supplementary information form to enable the data collector to correctly interpret the metered data for the site and ensure that this is converted and submitted into correct settlement values.</p>	
Connect	Connection Process	D/T	The installation of the required distribution (or transmission) plant and apparatus such that following energisation, electricity may be imported to, and/or exported from, the customer's installation at the Connection Point .	NTC
Connect and Manage	Connection Process	T	The Connect and Manage transmission access regime was introduced by the government in August 2010 and implemented on 11 February 2011. Its aim was to improve access to the electricity transmission network for generators by offering generation customers connection dates ahead of	CUSC Section 1, Also in SCR Charging

Term	Area	D or T	Plain English Definition	Code Ref
			<p>the completion of any wider transmission system reinforcements which may be needed. Any resultant constraint management costs are socialised via BSUoS charges.</p> <p>This is part of the arrangements used to manage transmission constraints whereby a customer is permitted to connect to an area of the network ahead of the completion of reinforcement. The connection will then be managed to control the identified constraint(s) until such a time as the reinforcement is completed or the constraint is no longer applicable. Prior to the connection being made there may still be a requirement for Enabling Works.</p>	Futures Glossary
Connected Installation	Industry Term	D	This could be a Customer Installation , a Generator Installation or a User Installation (as the case may be).	DCUSA
Connected Planning Data	Connection Process	D/T	This is data required pursuant to the Grid Code Planning Code which network companies will use in planning network use. The Connected Planning Data replaces data containing estimated values assumed for planning purposes by validated actual values and updated estimates for the future and by updated forecasts for forecast data items.	CUSC
Connection	Connection Process	D/T	Connection is a term covering a direct connection to an electricity transmission or distribution system. It refers to a network extension and the assets that will connect the network extension to the distribution or transmission system.	CUSC
Connection Agreement	Connection Process	D/T	At distribution, this is an agreement between a customer and a distribution or transmission network company detailing terms and conditions for connecting to and remaining connected to the relevant network.	ENA
Connection Assets	Connection Process	D	<p>Refers to new distribution assets for a new or modified connection to a customer. When a customer applies to be connected to a distribution system, then the assets that get installed are the minimum necessary to cater for the applicant's requirement.</p> <p>These assets which are provided for the sole use of connecting the user are referred to as Connection Assets and will typically comprise a combination of electrical plant, switchgear, cables and overhead lines. For DNO connections the costs of these assets are charged in full to the customer. These are distinct from Reinforcement assets that are only funded in part by the connection customer via apportionment rules.</p>	DCUSA
Connection Charges	Connection Process	D/T	<p>At transmission, Connection Charges cover the provision of electrical plant, lines and ancillary meters to construct entry and exit points on the National Electricity Transmission System. They also cover charges in respect of maintenance and repair where these costs are not recoverable as Use of System Charges, including all charges provided for in the statement of connection charging methodology (such as Termination Amounts and one-off charges)</p> <p>At distribution level, the full cost of new sole use Connection Assets are charged to the connectee. In addition, the connectee pays for a share of the Reinforcement costs under pre-determined apportionment rules.</p> <p>Connection Charges are paid for by network users and charged by the network operator (transmission or distribution, depending on where the new user connects).</p>	Also in SCR Charging Futures Glossary

Term	Area	D or T	Plain English Definition	Code Ref
			(Shallow, Shallowish and Deep are conceptual terms to describe different principles or approaches for charging for new connections.)	
Common Connection Charging Methodology (and Statement)	Connection Process	D/T	These are the principles and methods by which Connection Charges are determined.	CUSC Section 14 DCUSA CCCM
Connection Conditions or "CC"	Connection Process	D/T	Connection Conditions are that portion of the Grid Code which identify the minimum technical, design and operational criteria which must be complied with by NGET at connection sites and by the generation and demand customers connected to, or seeking connection to, the transmission network. Larger generators or DC Converters that are connected to, or seeking connection to, Distribution Networks must also meet Connection Conditions .	CUSC
Connection Entry Capacity	Connection Capacity	D/T	An agreed level of electrical energy generated into the network by a Customer. This agreed capacity will be recorded within the Connection Agreement .	CUSC Section 2
Connection Equipment	Connection Process	D	A specific, rather than general term, used in the National Terms of Connection . In this context Connection Equipment refers to the network company's equipment which has been installed to provide a connection at the Connection Point .	NTC
Connection Offer	Connection Process	D	This is a formal offer from a network company containing the terms, conditions and charges to make a connection. A Connection Offer is issued either to a customer or to the Independent Connection Provider (ICP) where applicable.	ENA
Connection Point	Connection Process	D	As distinct from a Point of Connection . This is located at the Entry Point or an Exit Point of the distribution or transmission system. In distribution this is normally at the physical boundary of the Distributor's assets and the customer's electrical equipment. The Metering Point is normally located here too. Related terms include Meter, Metering Point, MPAN, Point of Supply, Entry Point and Exit Point .	D-Code
Connection Site	Connection Process	D/T	Connection Sites are locations described in the relevant Bilateral Agreements at which a User's equipment and connection assets are situated. If two or more transmission system users own or operate plant and apparatus connected at a location, that location is treated as two or more Connection Sites .	CUSC Section 2
Connection Works	Connection Process	D	Connection Works are the works that are required to be undertaken to provide a Connection and includes determination of the Point of Connection .	CiC COP
Connections Activities	Connection Process	D	These are all the elements of work that are required to be carried out by either the distributor or an Independent Connections Provider (ICP) to provide the Connection .	CiC COP

Term	Area	D or T	Plain English Definition	Code Ref
Constrained Connection	Connection Capacity	D	<p>A Constrained Connection (or curtailed connection) is a Connection where Curtailement may be applied to the import and/or export capability of a site. Typically, this is offered to customers to avoid more extensive network reinforcement and it relies on restricting the capacity of the connection under certain network operating conditions to avoid creating conditions outside of the network assets operating limits.</p> <p>This restriction may be imposed on a simple time of day/year basis, or through the use of a more dynamic Active Network Management scheme.</p>	
Constraint Managed Zones	Connection Capacity	D	These are areas where peaks in demand or distributed generation are managed without needing to reinforce the network.	
Constraints (on a network)	Connection Capacity	D/T	Constraints are a term used for restrictions on the ability of a network to transport energy. For example, due to thermal or voltage limitations. An electricity network is constrained when the required capacity to transport desired electricity flows is higher than the actual capacity on the network. Can also be referred to as network congestion.	Also in SCR Charging Futures Glossary
Construction Agreement	Connection Process	D/T	<p>This is the agreement in place to cover construction of the works required for a Connection.</p> <p>Each customer who wishes to construct or modify a direct connection to the transmission system, or to commence or modify use of certain types of power station, requires a Construction Agreement for any construction works that are required for that connection or modification. Distribution companies connecting certain types of power station to their networks also require a Construction Agreement.</p>	CUSC Section 1
Consumer's Installation	General Contractual Terms	D/T	This refers to the electric lines situated upon the consumer's side of the supply terminals together with any equipment permanently connected or intended to be permanently connected thereto on that side.	ESQCR
Contestable Work	Connection Process	D	This comprises Connection Works that are identified by a DNO in its Connection Charging Methodology as able to be carried out by an Independent Connections Provider (ICP) . In effect, this work is open to competition.	CiC COP
Convertible Quotation	Connection Process	D	<p>A Connection Offer that separately identifies the charges for Non-Contestable Works and Contestable Works and can be accepted by:</p> <ul style="list-style-type: none"> • the recipient in its entirety; or • the recipient, or the recipient's duly appointed agent acting on his behalf, in relation only to that part of the quotation relating to the charges for Non-Contestable Works. <p>A customer may wish to request this type of quotation if they are looking to compare the price of the Network Operator carrying out the work to an Independent Connections Provider (ICP). Some DNOs refer to this type of offer as a dual offer and most offer a Convertible Quotation as standard</p>	CiC COP
Coordinate (between network parties)	Industry Term – DSO Models	D/T	Coordinate in this context is the negotiation and agreement between parties in order that actions and activities on one network does not cause issues on others.	
Curtailement	Connection Capacity	D/T	Curtailement refers to a user's ability to import or export from the network being restricted i.e. the user's access to the network is said to be curtailed.	Also in SCR Charging Futures Glossary

Term	Area	D or T	Plain English Definition	Code Ref
			The term is usually applicable to generator export but it can also be applied to demand from large industrial sites. Typically, Curtailment is a temporary reduction in the allowed exports from a generator, below a customer's agreed export capacity. Curtailment is activated in response to a notification or signal that the generator is required to curtail its output.	
Curtailment Assessment	Connection Capacity	D	A Curtailment Assessment is an estimate of the expected Curtailment over time, expressed in terms of MWh or the fraction of expected un-curtailed output. Often, this is based on simulation of Active Network Management (ANM) operation across representative time-frames.	
Customer	General Contractual Terms	D	Customer is a general term used by network companies in connection agreements. It often refers to any person supplied or entitled to be supplied with electricity at any premises within Great Britain.	D-Code
Customer Installation	General Contractual Terms	D	In the context of a specific reference in the National Terms of Connection this refers to any structures, equipment, lines, appliances or devices (not being the Company's Equipment) used, or to be used, at the customer's premises (whether or not owned or used by the Customer).	NTC
De-energisation	Operations	D	This is 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 transmission or distribution system and the customer's installation.	NTC
Demand Control	Operations	D	Demand Control refers to the adjustment of customer demand (up or down) to meet wider system needs. The term is often used to encompass different methods of achieving demand reduction including Customer voltage reduction, Customer demand reduction by disconnection, automatic low frequency demand disconnection and emergency manual demand disconnection.	D-Code
Design Variation	Connection Process	T	This is a term used to describe a transmission connection design that doesn't meet the full deterministic criteria of the NETS SQSS. Where a customer has opted to be connected using this type of connection design, they may not be entitled to compensation payments in the event of the connection capacity being constrained.	CUSC
Developer Capacity	Connection Capacity	T	This is the MW capacity figure specified on an agreement between NGET and a directly connected distribution system as a consequence of a request for a Statement of Work.	CUSC
DG Party	Industry Term	D	A DG Party is a person, company, or entity that holds a generation licence (or is exempt from requiring one) and has one or more generating stations connected to the distribution or transmission network. The term covers the majority of all generator installations connected to the distribution or transmission network with the exception of DNOs, IDNOs, and TOs who have installed generation for network restoration.	DCUSA
DGNU Payment	Connection Capacity	D	This is the mechanism (the Distributed Generation Network Unavailability Payment) created to make compensation payments for network outages experienced by customers with distributed generation.	NTC
Disconnect (or Disconnection)	Connection Process	D/T	This means to permanently de-energise an Exit / Entry Point by the permanent physical disconnection or removal of equipment.	CCCM / CUSC

Term	Area	D or T	Plain English Definition	Code Ref
Disconnection Notice	Connection Process	D	This is a notice sent by a Customer to the network company requesting that the it disconnects one or more Connection Points .	NTC
Distributed Generation (DG)	Industry Term	D/T	Also called DG, embedded generation, and distribution-connected generation. These are generators connected to the distribution system, rather than the transmission system. Small and Medium sized DG (sub-100MW) do not pay transmission charges and can receive Embedded Benefits. Large-sized DG (over 100MW) do pay transmission charges and do not receive Embedded Benefits.	CUSC, Also in SCR Charging Futures Glossary
Distributed Generation Connections Guide	Connection Process	D	This is the guide produced by distribution licensees to provide guidance on the connection process for Distributed Generation .	CCCM
Distribution	Operations	D	Local transportation of electrical energy, typically to customers (demand, generators or storage) across the networks off DNOs, IDNOs or private networks.	
Distribution Agreement	Connection Process	D/T	This is a Connection Agreement between a customer and a DNO. This term is used in CUSC to distinguish it from the Connection Agreement between National Grid and a DNO.	CUSC
Distribution Connection Agreement	Connection Process	D/T	This is an agreement between the owner or operator of a distribution system and an owner of a power station to be connected that distribution system.	CUSC
Distribution Licence	Industry Term	D	License conditions place obligations on distributors on how they must operate their businesses. The distribution licence is governed the regulator, Ofgem.	Ofgem
Distribution Network	Industry Term	D/T	In England and Wales this is the wires, cables and other network infrastructure that typically operate at 132kV and below, while in Scotland it is the infrastructure that operate below 132kV. Distribution Networks carry electricity from the transmission system and Distributed Generation to industrial, commercial and domestic users.	Also in SCR Charging Futures Glossary
Distribution Network Operator (DNO)	Industry Term	D/T	DNOs own, operate and maintain the distribution networks. They do not sell electricity to consumers, this is done by the electricity suppliers. There are 14 licensed DNOs in Britain, and each is responsible for a regional distribution services area.	Also in SCR Charging Futures Glossary
Distribution Services Area	Industry Term	D	In relation to an electricity distributor, the area (if any) specified as such under its electricity distribution licence.	CiC COP
Distribution Services Provider	Industry Term	D	Distribution Service Providers refers to the distribution network companies that are the former regional electricity companies and who cover 14 separate geographical regions of Great Britain. A Distribution Service Provider has specific distribution licence obligations compared to other distribution network companies.	CiC COP
Distribution System	Industry Term	D	A Distribution System is a system consisting (wholly or mainly) of electric lines owned or operated by an Electricity Distributor that is used for the distribution of electricity. This can be used to describe something slightly different to the Distribution Network in that it describes more than the physical assets, incorporating also the operation of the system. In England and Wales, the distribution system uses lines with a voltage less than or equal to 132 kV. In Scotland and Northern Ireland this is 33 kV and below.	CiC COP
Distribution System Operator (DSO)	Industry Term	D/T	A Distribution System Operator (DSO) has a role to monitor, control and actively manage the power flows on the	Open Networks

Term	Area	D or T	Plain English Definition	Code Ref
			<p>distribution system to maintain a safe, secure and reliable electricity supply.</p> <p>As a neutral facilitator of an open and accessible market for network services, a DSO will enable competitive access to markets and the optimal use of DER on distribution networks to deliver security, sustainability and affordability in the support of whole system optimisation. A DSO enables customers to be producers, consumers and storers of energy, enabling customer access to networks and markets, customer choice and great customer service.</p>	
Distributor	Industry Term	D	<p>A Distributor (normally a DNO or an IDNO) owns or operates a network for the distribution of electricity. There is a legal definition in the ESQCR. The term Distributor is normally used to refer to those distributors that have distribution licences i.e. DNOs and IDNOs. It should be noted that the owners of private networks with electricity's supplier's metered customers on them may also be considered to be distributors. Licenced Distributors are required to be party to industry codes.</p>	ESQCR
ECCR	Charging	D	<p>ECCR refers to the Electricity (Connection Charges) Regulations legislation.</p> <p>Also known as 'Second Comer' regulations, the ECCR applies to situations where a customer pays a DNO for a new or modified connection and a subsequent customer's new or modified connection utilises the assets installed for the first customer. When this happens the second customer may be additionally charged a proportion of the costs paid by either the first customer or the DNO to reflect the second customer's requested use. These additional charges may be refunded to the first customer or retained by the DNO.</p> <p>If these regulations apply to an applicant, then the quotation letter will specify which version of the legislation is applicable (2002/2017).</p>	CCCM
ECCR Prescribed Period	Charging	D	<p>When applying ECCR the ECCR Prescribed Period refers to a designated period for which all new Connected Installations must contribute to the Reinforcement or Extension costs for an area of network which has been reinforced or extended. The relevant period is outlined within the ECCR, being either (a) five years, for Connections made prior to 6 April 2017; or (b) ten years, for Connections made on or after 6 April 2017.</p> <p>The prescribed period starts from the completion date of the first connection.</p> <p>E.g. Customer 1 pays full cost to lay a new cable for their Connection. Three years later a second Customer wishes to connect to the same cable. Because the Reinforcement or Extension was only completed three years previously this falls within the ECCR Prescribed Period and as such the second Customer must contribute to the original cable laying costs. Customer 2's contribution is refunded to Customer 1.</p> <p>The first customer will only be eligible to receive any ECCR payment (reimbursement payment) if they still own or occupy the relevant premises at the time of the completion of the second connection.</p>	CCCM
Embedded	Industry Term	D/T	<p>Embedded means that a customer is not connected to the transmission network but has a direct connection to a</p>	CUSC

Term	Area	D or T	Plain English Definition	Code Ref
			Distribution System or to another system to which Customers and/or Power Stations are connected.	
Embedded Generator	Industry Term	D/T	In practice, an Embedded Generator has the same meaning as Distributed Generation (DG) .	Also in SCR Charging Futures Glossary
Emergency Conditions	Industry Term	D/T	Emergency Conditions denote conditions when normal operating arrangements are suspended. Emergency Conditions might arise where the condition of an energy system poses an immediate threat of injury or damage, or during a natural disaster or other emergency, or there is an actual or threatened emergency affecting energy supplies.	
Enabling Works	Connection Process	T	Under the Connect and Manage methodology, as defined within CUSC, generation projects are allowed to connect to the transmission system in advance of the completion of the wider transmission reinforcement works. Under Connect and Manage , the works that are required to be completed prior to a generator connecting are classed as Enabling Works .	CUSC Section 13
Energisation	Operations	D/T	This is the process which allows electricity to flow between the distribution or transmission network to, or from, the customers' premises. For a domestic dwelling this will be achieved by the insertion of a fuse at the metering position whereas larger connections will involve the closing of switch or circuit breaker.	NTC
Engineering Recommendations (EREC)	Industry Term	D/T	These are the technical standards developed by the Energy Network Association. Engineering Recommendations (EREC) are often referred to in industry codes and compliance with certain of these recommendations are often requirements for connection to electricity networks.	ENA
Enhanced Scheme	Connection Process	D	When applying for a new connection, the network operator will provide an offer for the Minimum Cost Scheme , however there are circumstances where the network operator may elect to build a different or Enhanced Scheme , usually to provide other benefits to the general network. Where this is the case, the connectee is charged the lower of the connection charges applicable to the Minimum Scheme or the Enhanced Scheme .	CCCM
Entry Point	Industry Term	D/T	This is the point at which a generator or other users connect to the transmission or distribution system and where power flows into the relevant system under normal circumstances. Refer also Meter, Metering Point, MPAN, Point of Supply, Connection Point (Exit Point) .	D-Code
Exempt Generator	Connection Process	D/T	An Exempt Generator is any generator who, under the terms of the Electricity (Class Exemptions from the Requirement for a Licence) Order 2001, is not obliged to hold a generation licence. One class of Exempt Generator covers generators with a capacity of less than 100MW who do not provide power of more than 50MW. Other classes include certain off-shore generators and certain generators who were connected before 30 th September 2000.	CUSC
Existing Capacity	Connection Capacity	D	For existing customers their Existing Capacity will be either:- a) the Maximum Capacity used in the calculation of their use of system charges; or b) for Customers who are not charged for use of system on the basis of their Maximum Capacity the lower of • No. of phases x nominal phase-neutral voltage (kV) x fuse rating (A); and • The rating of the service equipment.	CCCM
Existing Network	Industry Term	D/T	The electricity network in its current form.	CCCM

Term	Area	D or T	Plain English Definition	Code Ref
Exit Point	Industry Term	D/T	An Exit Point is the point of supply from transmission or distribution system to a User where power flows out from the transmission or distribution system under normal circumstances. Refer also Meter, Metering Point, MPAN, Point of Supply, Connection Point (or Entry Point) .	D-Code
Export Limited Connection	Connection Capacity	D/T	A connection where the Power Station Capacity is greater than the Agreed Export Capacity at that Connection Point and the export from that Power Station is limited to the Agreed Export Capacity . This is often the case where there is demand and generation connected on the customer's side of the Connection Point .	
Extension Assets	Connection Process	D	These are assets which connect the existing distribution network to a customer's premises and will be charged to the applicant in full.	CCCM
Fault Level	Industry Term	D/T	The Fault Level is the maximum prospective current or power that will flow into a short circuit at a point on the network, usually expressed in MVA or kA.	CCCM
Feasibility Study	Industry Term	D	A Feasibility Study may be requested by a customer or project developer to better understand the costs and benefit of differing connection arrangements or capacities, before subsequently making a formal application. It is generally utilised for more complex connections, to consider a number of options for connection and provides estimated costs for each option as appropriate. Costs are purely indicative and are not a binding offer and as such cannot be accepted. The price in any formal Connection Offer may therefore differ from that given in the Feasibility Study .	CCCM
Firm (Connection)	Connection Capacity	D/T	The term Firm is used to describe a connection that remains available in a first fault scenario. A clear example of a Firm connection is a connection of 2 or more circuits to maintain availability in the event of one circuit not being available (Single circuit connections are a clear example of an Un-Firm / Non-firm connection whereby the connection becomes unavailable after a fault and remains unavailable for the duration of the fault repair). A Firm arrangement is one which, in the event of a fault on, or the taking out of commission for maintenance or other purposes, any one circuit forming part of the connection arrangement, ensures continued availability of the agreed Maximum Import Capacity or Maximum Export Capacity (assuming that the wider network assets that the connection is connected to are intact and operating normally).	
Firmness	Connection Capacity	D/T	This is the extent to which a user's access to the network can be restricted and, in the case of transmission connections, their eligibility for compensation if it is restricted.	Also in SCR Charging Futures Glossary
First Circuit Outage	Operations	D/T	This refers to an operational state of the network where a single item of equipment is out-of-service due to a fault, or due to a planned outage/reconfiguration to enable repairs or maintenance activities.	
Flexibility	System Services	D/T	Flexibility refers to the ability of users on a network to quickly change their operations (e.g. modifying generation and/or consumption patterns) in reaction to an external signal (e.g. change in price) in order to provide system services, such as supporting system balancing and network constraint management. Sources of Flexibility are typically demand side response, storage, and dispatchable generation.	Also in SCR Charging Futures Glossary

Term	Area	D or T	Plain English Definition	Code Ref
Flexibility Market	Industry Term – DSO Models	D/T	The arena of commercial dealings between buyers and sellers of Flexibility Services .	Also in SCR Charging Futures Glossary
Flexibility Service	Industry Term – DSO Models	D/T	The offer of modifying generation and/or consumption patterns in reaction to an external signal (such as a change in price) to provide a service within the energy system.	Also in SCR Charging Futures Glossary
Flexible Connection(s)	Connection Capacity	D	<p>Flexible Connections are Non-firm, connection arrangements whereby a customer’s export or import is managed (often through real-time control) based upon contracted and agreed principles of available capacity. Flexible Connections typically allow quicker and cheaper connection to the network but have no defined cap on the extent to which a user’s access can be interrupted.</p> <p>Timed Connections and connections utilising Active Network Management arrangements are examples of Flexible Connections. Occasionally, Flexible Connections are also referred to as Managed Connections.</p> <p>Flexible Connections refer to connection capacity and should not be confused with Flexibility Markets and Flexibility Services.</p>	Also in SCR Charging Futures Glossary
Flexible Resources		D/T	Flexible Resources , typically distributed generation, storage or demand response, are connected to the electricity network, and are flexible in how they operate and impact the network.	Also in SCR Charging Futures Glossary
GB Transmission System	Industry Term	D/T	<p>The system consisting of high voltage electric wires owned or operated by transmission licensees within Great Britain.</p> <p>This term is referred to in the CCCM and is similar to the term National Electricity Transmission System or “NETS” which is defined in CUSC.</p>	CCCM, Also in SCR Charging Futures Glossary
Generator	Industry Term	D/T	This is a person/entity that generates electricity under licence or exemption under the Electricity Act.	D-Code
Generator Installation	Industry Term	D	This refers to any structure, equipment, lines, appliances or devices used or to be used by a Generator and connected or to be connected directly or indirectly to a Distribution System .	DCUSA
Grid Supply Point" ("GSP")	Industry Term	D/T	This is a point of delivery from or to the National Electricity Transmission System to a distribution system or to a non-embedded demand customer.	CUSC / D-Code
Guaranteed Standards of Performance	General Contractual Terms	D	As part of a network operator’s licence they are obligated to provide a minimum standard of service. This is backed by a guarantee and set out in the Electricity (Standards of Performance) Regulations 2005. Failure to deliver these standards of service can result in penalties to network operators and in the most severe form result in the loss of licence.	CCCM
Independent Connection Provider (ICP)	Industry Term	D	An Independent Connection Provider (ICP) is an organisation, other than the DNO in whose Distribution Service Region the connection is situated, accredited to undertake Contestable Works in relation to the provision of a Connection to the DNO’s Distribution System.	CiC COP, Also in SCR Charging Futures Glossary
Independent Distribution Network Operator (IDNO)	Industry Term	D	This means an Electricity Distributor that is not a Distribution Services Provider (or, if it is, is operating in relation to that part of its Distribution System that is outside its Distribution Services Area)	CiC COP, Also in SCR Charging

Term	Area	D or T	Plain English Definition	Code Ref
				Futures Glossary
Indicative Maximum Generation Capability	Connection Capacity	D/T	This is a customer's best estimate of its maximum generation.	CUSC Section 4
Interactive Connection Applications	Connection Process	D/T	<p>These arise where there are two or more applications for connection which would make use of the same part of the existing or committed network or otherwise would have a material operational effect on that network such there is a material impact on the terms and conditions of any Connection Offer made in respect of such connections.</p> <p>Interactivity at transmission level occurs where a customer Connection Offer would affect the terms of an outstanding unsigned customer offer, which is reliant upon the completion of the same transmission reinforcement works.</p>	CCCM
Interactive Connection Offers	Connection Process	D/T	<p>There are occasions where network companies receive two or more connection applications that will make use of the same part of the Existing Network and where not all the applicants can be connected. The resulting connection offers are referred to as Interactive Connection Offers.</p> <p>A queue of customers is then formed and the network company will connect as many customers as are technically feasible. Unsuccessful applicants will have their Connection Offers withdrawn and additional design work will be required.</p>	CCCM
Interactivity Queue	Connection Process	D/T	It is possible for a number of Connection Offers to have an impact on a common part of the network. Where this part of the network is not capable of allowing all the connections to occur (without reinforcement), the offers become interactive and join an Interactivity Queue . The queue order provides the contractual priority of the offers which will enter an interactivity process to allow time for each party to consider their offer before acceptance, which will be treated in queue order.	CCCM
Intertrip	Connection Capacity	D/T	A system or process to disconnect a generator or demand from the network in very short timescales when a specific event occurs.	
Intertripping scheme (categories 1 to 4)	Connection Capacity	D/T	<p>Intertripping is used as a method of reducing generation capacity to the network, preventing inadvertent back feeding to the network or preventing system overloading. This prevents abnormal system conditions occurring following power system fault(s) such as: over voltage, thermal overload, system instability, etc....</p> <p>There are four categories of intertripping scheme defined in the CUSC. These differ in the intended application.</p> <ul style="list-style-type: none"> - Category 1 schemes are often used as part of a variation to a standard connection design under the NETS SQSS. - Category 2 schemes are often used to control loading on local circuits when other local circuits are out of service. - Category 3 schemes are used as an alternative to network reinforcement to alleviate loading on a third party system. - Category 4 schemes are used to enable the disconnection of the Connection Site from the transmission or distribution system in a controlled and efficient manner. 	CUSC
Land Rights	General Contractual Terms	D	All such rights in, under or over land as are necessary for the construction, installation, operation, repair, maintenance, renewal or use of the Contestable Work or Non-Contestable Work .	CCCM

Term	Area	D or T	Plain English Definition	Code Ref
LIFO	Connection Capacity	D	<p>LIFO ("Last In First Out") is a means of allocating network capacity where a network constraint is resolved by curtailing all participating users in the order in which they applied for connection to the network.</p> <p>The term LIFO Stack refers to the ordered list of participating Users. In the context of a multi-customer ANM scheme, a customer recently joining a scheme will be subject to more Curtailment than other customers in the scheme who were connected in the scheme earlier.</p>	Also in SCR Charging Futures Glossary
Local Market	Industry Term – DSO Models	D/T	The market(s) for services at local/distribution level e.g. management of constraints on a distribution network.	
LV Sub	Industry Term	D	A connection to a site with Distributor owned voltage transformation where the customer is metered at or very close to the lower voltage of the transformer at LV.	
Managed Connections	Connection Capacity	D	Please see Flexible Connections term.	
Maximum Export Capacity	Connection Capacity	D/T	In respect of a Connection Point (or the Connection Points collectively), the Maximum Export Capacity is the maximum amount of electricity (expressed in kW or kVA) which is permitted by the network company to flow into the Distribution System .	NTC
Maximum Import Capacity	Connection Capacity	D/T	In respect of a Connection Point (or the Connection Points collectively), the Maximum Import Capacity is the maximum amount of electricity (expressed in kW or kVA) which is permitted by the Company to flow from the Distribution System .	NTC
Meter	Industry Term	D/T	<p>This is a device that measures the amount of energy passing through a given point.</p> <p>Refer also Metering Point, MPAN, Point of Supply, Connection Point (or Entry / Exit Point).</p>	NTC, Also in SCR Charging Futures Glossary
Meter Operator	Industry Term	D/T	This is a person who installs, maintains or removes metering equipment used for measuring the flow of energy to or from a network at or near the supply terminals.	ESQCR
Meter Point Administration Number (MPAN)	Industry Term	D	This is a 21 digit reference to uniquely identify network exit and entry points, such as individual domestic residences. Refer also Meter, Metering Point, Point of Supply, Connection Point (or Entry / Exit Point) .	CCCM
Metering Point	Industry Term	D/T	<p>This is the point, determined according to the principles and guidance given at Schedule 9 of the Master Registration Agreement, at which a supply to (export) or from (import) a distribution system is measured. The measurements are used to ascertain a Supplier/DG Party's liabilities under the Balancing and Settlement Code.</p> <p>The term can also refer to the point where metering equipment has been removed, or was intended to be measured.</p> <p>For an Unmetered Supply, a Metering Point can be the point where a supply is deemed to be measured.</p> <p>Refer also Meter, MPAN, Point of Supply, Connection Point (or Entry / Exit Point).</p>	DCUSA, Also in SCR Charging Futures Glossary
Minimum Scheme	Connection Process	D	In the context of a new distribution connection, the Minimum Scheme is the network design with the lowest	CCCM,

Term	Area	D or T	Plain English Definition	Code Ref
			overall cost which meets all technical, regulatory and safety requirements in order to provide the capacity required by the applicant.	Also in SCR Charging Futures Glossary
MITS (Main Interconnected Transmission System)	Connection Process	D/T	<p>The MITS (Main Interconnected Transmission System) refers to the bulk of the GB transmission system.</p> <p>The MITS includes:</p> <ul style="list-style-type: none"> - All the 400kV and 275kV elements of the onshore transmission system; - 132kV elements in Scotland operated in parallel with the remainder of the transmission system; - Any elements of offshore transmission systems operated in parallel with the remainder of the transmission system. <p>It doesn't include generation circuits, transformer connections to lower voltage systems, interconnections to external systems, and any offshore transmission systems radially connected to the onshore transmission system.</p>	
MITS Connection Works	Connection Process	D/T	MITS Connection Works are the transmission works (inclusive of substation works) that are required from the Connection Site to connect to a MITS Substation .	CUSC
MITS Substation	Connection Process	D/T	In the context of the definition of MITS Connection Works , a MITS Substation is a transmission substation with more than 4 main system circuits connecting at that substation. These are identified in NGET's Seven Year Statement.	CUSC
Modification	Connection Process	D	<p>The refers to any actual or proposed replacement, renovation, modification, alteration or construction to a Customer's plant or apparatus, or the manner of its operation, which materially effects another party.</p> <p>Example 1: A Customer has an existing Connection to the Distribution Network. Due to a requirement for additional capacity it is required to increase the size of the Connection and as such a Modification to the existing equipment supplying the Customer is required.</p> <p>Example 2: A Customer has accepted a Connection Offer for a new Connection. Due to a change in the site layout they request a change to the cable route this results in a Modification to the quotation.</p>	NTC, Also in SCR Charging Futures Glossary
Mutually Exclusive Offers	Connection Process	D/T	This occurs in situations where multiple offers have been issued for a similar connection to the same customer and are mutually exclusive. Only one of these Mutually Exclusive Offers can be accepted and upon acceptance of one, the other(s) will immediately be withdrawn.	
N-1	Connection Capacity	D/T	N-1 means that is network is planned and operated such that the loss of any one element (e.g. a circuit on an overhead line route, a transformer, an underground cable) still allows the network to operate securely and to continue serving demand.	
N-2	Connection Capacity	D/T	N-2 means that is network is planned and operated such that the credible loss of any two elements (e.g. two circuits on an overhead line route, an underground cable and a separate overhead line circuit) still allows the network to operate securely and to continue serving demand.	
National Terms of Connection (NTC)	Connection Process	D	The National Terms of Connection set out the terms and conditions that Distribution Network Operators require users to accept in return for maintaining the connection of the premises to its network.	Also in SCR Charging Futures Glossary

Term	Area	D or T	Plain English Definition	Code Ref
National Electricity Registration Scheme (NERS)	Industry Term	D	This is the scheme operated on behalf of the DNOs under which Independent Connection Providers (ICPs) may be assessed, audited, surveyed, etc. leading to the issue and maintenance of accreditation for the carrying out of Contestable Works .	
National Electricity Transmission System or "NETS"	Industry Term	D/T	This is the system consisting of high voltage electric wires owned or operated by transmission licensees within Great Britain and offshore and used for the transmission of electricity from power stations to sub-stations, or between sub-stations, or to or from any external interconnection. This system includes any plant, apparatus or meters that are owned or operated by any transmission licensee, within Great Britain or Offshore, in connection with the transmission of electricity, but does not include Remote Transmission Assets. This term is referred to in the CUSC and is similar to the term GB Transmission System which is defined in the CCCM.	CUSC, Also in SCR Charging Futures Glossary
National Market	Industry Term – DSO Models	D/T	The market(s) for national services which are not location specific e.g. frequency response, reserve, etc.	
NETS SQSS	Industry Term	D/T	This is the National Electricity Transmission System Security and Quality of Supply Standard issued under Standard Condition C17 of the Transmission Licence. It includes the criteria used to plan and operate the National Electricity Transmission System .	CUSC
New Fault Level Capacity	Connection Capacity	D	This is the assessed fault level capacity at the appropriate point on the Distribution System following reinforcement. It is used in the calculation of the apportioned cost chargeable to the customer in the charging methodology statements. The Fault Level Contribution from Connection is defined as the incremental increase in Fault Level caused by the customer. Where a customer applies to connect equipment and the Fault Level will cause the network to be reinforced, the New Fault Level Capacity and Fault Level Contribution from Connection will be used to calculate the proportion of the costs to be paid by the applicant. Where an existing Customer requests a change to a connection then the Fault Level Contribution from Connection is defined as the incremental increase in Fault Level caused by the Customer.	CCCM, Also in SCR Charging Futures Glossary
New Network Capacity	Connection Capacity	D	New Network Capacity is the assessed network capacity following reinforcement. It is used in the calculation of the apportioned cost chargeable to the customer in the charging methodology statements. The new capacity is based on the operator's assessment of the thermal ratings, voltage drop and upstream restrictions and compliance with relevant design, planning and security of supply policies. The equipment ratings to be used are the appropriate operational ratings at the time of the most onerous operational conditions taking account of seasonal ratings and demand.	CCCM, Also in SCR Charging Futures Glossary
Non-Contestable Work	Connection Process	D	Non-Contestable Work is work that can only be undertaken by the host Distribution Network Operator (DNO).	CiC COP,

Term	Area	D or T	Plain English Definition	Code Ref
			It includes those Connection Works that are identified by a DNO in its Connection Charging Methodology and Statement that may only be carried out by the DNO.	Also in SCR Charging Futures Glossary
Normal Operating Conditions	Operations	T	<p>Normal Operating Conditions include a range of conditions under which the system has been designed to operate.</p> <p>Typically, Normal Operating Conditions cover generation variations, load variations and reactive compensation or filter states (e.g. shunt capacitor states), planned outages and arrangements during maintenance and construction work, non-ideal operating conditions and normal contingencies.</p> <p>Abnormal Operating Conditions could include switching in or out of circuits or network assets as a result of faults or other unplanned activities.</p>	
Notification of Restrictions on Availability	Connection Capacity	D/T	This is a notification of outage conditions and/or circuit restrictions as applicable. It is usually associated with a Design Variation . Where a Customer is subject to a Notification of Restrictions on Availability , then the customer is not compensated for being constrained off.	CUSC, Also in SCR Charging Futures Glossary
Operational Intertripping	Connection Capacity	D/T	<p>This is the automatic tripping of circuit breakers to prevent abnormal system conditions occurring, such as over voltage, overload, system instability etc. after the tripping of other circuit breakers following power system fault(s).</p> <p>Operational Intertripping might include generation and demand intertripping schemes.</p>	CUSC
Planning Limits	Industry Term	D/T	This is the result of an assessment of the capacity available to a Distribution Network Operator at a Grid Supply Point (import or export capacity) taking into account the capability of the network, the contracted background and the forecast operation of the network.	
Platform / Platform Market	Industry Term – DSO Models	D/T	A Platform Market is a market where user interactions are mediated by an intermediary, the platform provider, and are subject to network effects. As opposed to a marketplace or trading exchange, a platform intermediary must offer inherent value beyond the simple mediation process for the two sides of the market. This added-value usually comes from ICT and the associated complementary innovation that increases utility and attractiveness of the Platform to all user groups. (Weiller & Pollitt 2003).	
Point of Common Coupling	Industry Term	D/T	This is the point on a distribution network, electrically nearest the Customer Installation , at which other Customers are, or may be, connected. It is often referenced in the assessment of power quality.	Engineering Rec G99
Point of Connection (POC)	Connection Process	D	As distinct from Connection Point . For each proposed new Connection , this is the point (or points) of physical connection between the DNO's existing Distribution System and the new assets for the extended network. I.e. the point on the existing network where the new Connection will be connected, whether connected by the DNO or an Independent Connection Provider . This is not a metering point.	CiC COP
Point of Supply	Industry Term	D	This is the electrical position where the equipment in the customers premises connects to the distribution or transmission network. Usually, the equipment on one side will be owned by the customer and the equipment on the other	ENA DG Connection Guide

Term	Area	D or T	Plain English Definition	Code Ref
			side will be owned by the network operator. The metering is normally located here. Refer also Meter, Metering Point, MPAN, Connection Point (or Entry / Exit Point) .	
Power Ramp Rates	Industry Term	D/T	These are the rates at which a generation or demand site increases or decreases power. Power Ramp Rates are important where rapid changes in power can affect the stability or operation of the electricity network, and therefore will be used in the design of a network. Facilities such as energy storage sites often have capability to increase power export at a rapid rate. This can be a benefit to the system, although needs careful design consideration.	
Power Station Capacity	Industry Term	D	Or Power Generating Facility Capacity. The aggregated capacity of all the generating units associated with a single power station.	EREC G100
Pre-qualification	Industry Term – DSO Models	D/T	Pre-qualification is a process to demonstrate flexibility Service Providers meet the technical requirements of a Flexibility Service and that activation does not cause the system to experience additional Constraints (at both transmission and distribution levels).	
Principles of Access	Connection Capacity	D	Principles of Access are a methodology or rules by which network access is granted and govern when a Curtailed instruction is issued or network capacity released to a User under a Flexible Connection . They are relevant where Non-firm connections are used including Active Network Management (ANM) arrangements.	
Pro Rata	Industry Term	D	In the context of a multi-customer Active Network Management (ANM) scheme, this is an alternative to LIFO for the allocation of Curtailed . In Pro Rata allocation, the Curtailed levels for customers in a scheme are pro-rated based on their agreed capacities rather than on the date of connection. This means that customers receive equal Curtailed as a fraction of their un-curtailed generation.	
Pro Rata Curtailment	Industry Term	D	This is associated with Curtailed in Active Network management schemes. Where a Constraint occurs and it is necessary to constrain Generator output; Curtailed is shared equally among all Generators in proportion to their capacity and contribution to the Constraint . Example 1: Due to Abnormal Operating Conditions or the pre-determined operating limit for the Constraint having been reached it is required to reduce generation output flowing through the network to 15MW. There are three Generators connected to the same point of the network sized 10MW, 5MW, 15MW. A Pro-Rata Disconnection would apply a 50% Curtailed to all Generators reducing their outputs to 5MW, 2.5MW, 7.5MW respectively. Example 2: Same criteria is example 1, however the 5MW Generator is connected in a different area of the network and as such only contributes 1MW of energy to the curtailed section of network. In this scenario to reduce the generation through the curtailed section of network only the 1MW of contribution from the 5MW unit would be pro-rated.	
Protected Import/Export Capacity	Industry Term	D	In the context of Flexible Connections , this is a level of capacity that is not subject to being curtailed where Curtailed becomes necessary. For example, additional	

Term	Area	D or T	Plain English Definition	Code Ref
			generation added to an existing site may be subject to Curtailed , however the original generation on the site remains un-curtailed.	
Re-energisation	Operations	D/T	This is the deliberate movement of any switch or the installation of any fuse or the taking of any other step whereby electrical current can flow between the transmission or distribution system and the customer's installation.	NTC / CUSC
Regional Market	Industry Term – DSO Models	D/T	The market(s) for services at a regional level that may encompass one or more distribution networks and/or an area of the transmission network e.g. management of transmission constraints through the balancing mechanism.	
Registered Capacity	Connection Capacity	D/T	This is the maximum amount of active power deliverable by a power station at the Entry Point as declared by the Generator.	CUSC
Reinforcement	Industry Term	D/T	Reinforcement is defined as the work carried out and the assets installed that add capacity (network or fault level) to the existing shared use Transmission or Distribution System.	CCCM
Relevant Embedded Generator	Industry Term	D/T	This is a generator embedded within a distribution network that is reasonably believed to have a significant system effect on the National Electricity Transmission System . A significant system effect could be a change in power flow or fault level on the transmission system such that the operation of the Relevant Embedded Generator needs to be explicitly considered in the planning and operation.	CUSC
Relevant Section of Network	Operations	D	Relevant Sections of Network (RSNs) are that part or parts of the Distribution System that can be used to supply a customer in both normal and abnormal running arrangements. There may be more than one RSN , e.g. at different voltage levels.	
Request for a Statement of Works	Connection Process	D/T	This is a formal request from a DNO to NGET for an assessment of the impact of relevant distribution connected generation upon the transmission network.	CUSC Section 6
Required Capacity	Connection Capacity	D	This is the Maximum Capacity agreed with a customer. In the case of multiple connections (e.g. a housing development) it may be adjusted after consideration of the effects of diversity. Where an existing customer requests an increase in capacity then it is the increased capacity above their Existing Capacity .	CCCM
Restrictions on Availability	Connection Capacity	D/T	At times there may be restrictions enforced on a connection due to pre-defined criteria. For Transmission Connections these will be set out in the relevant Notification of Restrictions on Availability . These restrictions will be in the form of an outage or reduction in capability.	CUSC
Second Circuit Outage	Operations	D/T	This refers to operational states of the network where two items of equipment are out-of-service simultaneously. This is usually due to the occurrence of a fault at the same time as a planned outage.	
Section 16 (of the Act)	Legal	D	Section 16 of the Act creates an obligation on DNOs to connect customer's premises and IDNO networks i.e. to provide connection offers where requested to do so.	The Act
Section 16A (of the Act)	Legal	D	Section 16A of the Act explains the process for a person who requires a connection and states the minimum information required. It also places an obligation on the distributor to respond as soon as practicable.	The Act
Section 17 (of the Act)	Legal	D	Section 17 of the Act explains the circumstances where the distributor is not required to make a connection. It also explains what the distributor must do before being permitted to disconnect any premises or distribution system.	The Act

Term	Area	D or T	Plain English Definition	Code Ref
Section 19 (of the Act)	Legal	D	Section 19 of the Act allows the distributor to recover any reasonably incurred expenses in providing the connection from the applicant.	The Act
Section 20 (of the Act)	Legal	D	Section 20 of the Act allows the distributor to require reasonable security from the applicant for the cost of the connection. It also explains the circumstances where the distributor will pay interest to the applicant.	The Act
Section 21 (of the Act)	Legal	D	Section 21 of the Act allows the distributor to require the applicant to accept any reasonable additional terms in respect of making the connection.	The Act
Section 22 (of the Act)	Legal	D	Section 22 of the Act the distributor and the applicant to enter into a special agreement with respect to the connection. The rights and liabilities would be subject to the special agreement and not S16 to 21. This does not prevent a person from making an application under S16A.	The Act
Section 23 (of the Act)	Legal	D	Section 23 of the Act explains the circumstances where a person can refer a dispute to the regulator. No dispute can be referred to the Authority more than 12 months after the connection is made.	The Act
Secured Amount	User Commitment	D/T	This is the monetary amount that a Customer is liable to provide security for against the event of termination of a transmission Bilateral Agreement .	CUSC, Also in SCR Charging Futures Glossary
Service Provider	Industry Term – DSO Models	D/T	Those parties able to offer Flexibility Services .	
Settlement	Industry Term – DSO Models	D/T	This is the process of measuring and verifying whether a service has been provided and whether there was an imbalance between the contracted position and the outturn.	
Single Circuit (Connection)	Connection Capacity	D/T	A Single Circuit connection arrangement means that in the event of a fault on that circuit or the distribution system feeding that circuit, or the need to take the circuit out of service for maintenance, the Customer's connection will remain unavailable for the duration of the necessary works.	Also in SCR Charging Futures Glossary
Site	Industry Term	D/T	A Site is Customer or Company premises for which a connection point is made; or for a new connection as defined in the formal connection application site plan.	Also in SCR Charging Futures Glossary
Site Specific Requirements	General Contractual Terms	D/T	These are works deemed necessary by NGET in accordance with the Grid Code at an embedded generation site to enable the connection of that generator as identified through the Statement of Works process.	CUSC, Also in SCR Charging Futures Glossary
Small-Scale Embedded Generation (SSEG)	Industry Term	D	This is defined in EREC G83 as "A Generating Unit together with any associated interface equipment that can be used independently, rated up to and including 16A per phase, single or multiphase 230/400V AC and designed to operate in parallel with a public low voltage Distribution System". I.e. up to 3.68 kW on a single-phase supply and 11.04 kW on a three-phase supply.	ENA
Smart Grid	Industry Term – DSO Models	D/T	This is an electrical grid which includes a variety of operational and energy measures including smart meters, smart appliances, renewable energy resources, and energy efficient resources. Electronic power conditioning and control of the production and distribution of electricity are important aspects of the Smart Grid .	

Term	Area	D or T	Plain English Definition	Code Ref
Station Demand	Industry Term	T	In the context of a generation Site ; the Station Demand is the total site combined electrical demand where the Site is being supplied by an Electricity Transmission System or a Distribution System. I.e. All the site demand presented when the generation is not operating.	CUSC
System Losses	Industry Term	D/T	These are the difference between the energy entering the national electricity system and the net energy exiting the system, split into two categories: 1. Technical Losses, which occur as an innate by product of the operation of the electricity system i.e. heat generated by electrical plant/equipment. 2. Non-Technical Losses, which occur as a result of illegal abstraction, inaccuracies in unmetered supply inventories and metering conveyance errors i.e. unregistered meters and meter tolerances.	
Termination Amount	User Commitment	D/T	The monetary amount a customer is liable for in the event of termination of a transmission bilateral agreement. Note this may exceed the Secured Amount .	CUSC, Also in SCR Charging Futures Glossary
Thermal Rating	Operations	D/T	The current carrying capacity of the cable (or circuit) determined by the heating effect caused by electrical losses.	ENA, Also in SCR Charging Futures Glossary
Timed Connection	Connection Capacity	D	A connection arrangement where connection capacity is subject to restrictions within specific time periods.	
Transmission	Industry Term	D/T	Part of the electricity transmission network transmitting high-voltage electricity from where it is generated to where it is distributed throughout the country. There are 3 Transmission Operators (TOs) permitted to develop, operate and maintain a high voltage system within their own distinct onshore transmission areas.	CUSC, Also in SCR Charging Futures Glossary
Transmission Circuits	Industry Term	D/T	These are onshore or offshore transmission circuits and include the transmission system between two or more circuit-breakers which include, for example, transformers, reactors, cables and overhead lines and DC converters.	CUSC
Transmission Connection Assets	Industry Term	D/T	These are the transmission plant and apparatus necessary to connect to the National Electricity Transmission System at a connection site and which incur connection charges.	CUSC
Transmission Entry Capacity	Connection Capacity	T	This is the maximum capacity that shall be accepted into the NETS from a directly connected power station as specified in the relevant agreement.	CUSC
Transmission Works	Connection Process	D/T	Transmission Works are the works required on the transmission network to either enable a Connection , maintain service performance and standards, or to recover equipment where no longer required. In relation to a particular customer, Transmission Works are specified in Appendix H or identified in the relevant Construction Agreement .	CUSC, Also in SCR Charging Futures Glossary
Un-firm Connections (Non-firm)	Connection Capacity	D/T	As distinct from Firm . Un-firm connections are typically single circuit whereby the connection becomes unavailable in the event of a fault or necessary maintenance. The connection remains unavailable for the duration of the necessary works. Un-firm connections have become commonplace for generator connections on distribution networks to reduce connection charges (due to less assets required than for 2 circuit connections).	

Term	Area	D or T	Plain English Definition	Code Ref
Unmetered Connection	Connection Process	D	This is a connection to the electricity network that is provided without a metering point. A maintained inventory of connected equipment and usage profile will be provided to allow for accurate consumption and maximum capacity charging.	Also in SCR Charging Futures Glossary
User Commitment Methodology	User Commitment	D/T	The User Commitment Methodology are the rules by which parties must underwrite works which they trigger on the transmission system. In the event that the party terminates its Connection Agreement prior to connection (or even if it reduces the capacity at which it eventually connects), it must pay a Cancellation Charge (the liability) to the network operator. They may also be required to provide security to cover a proportion of the liability prior to the start of any works on the connection.	CUSC Section 15, Also in SCR Charging Futures Glossary
Validity Period	Connection Process	D	The Validity Period is the period for which a Connection Offer or POC Offer is open for acceptance.	CCCM
Voltage of Connection	Connection Process	D	This is the voltage at the Point of Connection (POC) between the existing distribution network and the assets used to provide the new connection. This is not necessarily the voltage of supply to the customer. For example, the Point of Connection may be at high voltage, the new connection asset may include a high voltage to low voltage transformer and consequently the voltage of supply to the customer will be at low voltage i.e. metered at low voltage.	CCCM, Also in SCR Charging Futures Glossary
Whole Network	Industry Term	D/T	Whole Network means taking consideration of both transmission and distribution network costs and impacts.	Also in SCR Charging Futures Glossary
Whole System	Industry Term	D/T	In the context of Open Networks, Whole System means making optimal network investment and operational decisions for the whole electricity network, not just transmission or distribution networks in isolation from all the equipment connected to the network. Whole System is being used in different ways across the electricity and wider energy industries at present. Often, in the context of electrical networks, Whole System tends to mean the whole electrical system encompassing both transmission and distribution networks, plus all the equipment connected to the networks including generators, demand devices, reactive compensation, energy storage. Often, in wider debates about the development of the energy system (rather than just the electricity system) Whole System may apply to all aspects of the energy including the whole electricity system, the gas system, fuel transporting and infrastructure, heat networks, and more.	Open Networks, Also in SCR Charging Futures Glossary
Wider Transmission Reinforcement Works	Connection Process	D/T	These are transmission reinforcement works (often remote from the connection) other than the Enabling Works and which are specified in the Construction Agreement . These works are not required to be completed prior to the user's equipment being energised under a Connect and Manage arrangement.	CUSC, Also in SCR Charging Futures Glossary