



Network Development Plan

2022
Glossary

Version Control

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Glossary

Acronym/ Initialism	Term	Definition
AAAC	All Aluminium Alloy Conductor (AAAC)	Cable type used on the network.
ABI	Air Break Isolator	Isolator used on the overhead line network. Also known as Air Break Switch Disconnectors (ABSD's),
ACSR	Aluminium-conductor steel-reinforced	Cable type used on the network.
ANM	Active Network Management	The Energy Networks Association Active Network Management Good Practice Guide [22] summarises ANM as: <i>Using flexible network customers autonomously and in real-time to increase the utilisation of network assets without breaching operational limits, thereby reducing the need for reinforcement, speeding up connections and reducing costs.</i>
BSP	Bulk Supply Point	A substation comprising one or more Grid Transformers and associated switchgear.
CEP	Clean Energy Package	European legislation for a unified energy strategy for delivering the Paris agreement.
CEM	Common Evaluation Methodology	A methodology developed under the Open Networks project to compare options and identify low regret pathways.
CT	Consumer Transformation	Mid-level ambition DFES scenario that forecasts the volumes and regional distribution of low carbon technology uptake in our region. This uses stakeholder-informed bottom up analysis to align with national industry developed future energy scenarios.
CT	Current Transformer	A type of transformer that is used to multiply or reduce an alternating current.
CIs	Customers Interruptions	The proportion of total customers whose supplies have been interrupted in a year.
CMLs	Customer Minutes Lost	A measure of the duration of interruptions to supply per year.
DT	Definite Time	Operating time characteristic of a protection relay.
–	Demand	The consumption of electrical energy.
DSR	Demand Side Response	Ofgem led tariffs and schemes, which incentivise customers to change their electricity usage habits.
DOC	Directional Overcurrent	A type of protection used that operates when subject to power flow above a certain magnitude in a specified direction.
DG	Distributed Generation	Generation connected to a distribution network. Sometimes known as Embedded Generation.
DNO	Distribution Network Operator	A company licenced by Ofgem to distribute electricity in the United Kingdom who has a defined Distribution Services Area.

DNOA	Distribution Network Options Assessment	A document published twice a year by WPD providing transparency in the investment decision making process.
DSO	Distribution System Operator	A department within WPD that creates an efficient and more flexible electricity network to meet future energy demands as well as co-ordinating transmission and distribution services at a local level with other network and system operators.
–	Electric Vehicle	A vehicle that uses electric motors as its method of propulsion.
ESA	Electricity Supply Area	Each ESA represents a block of demand and generation as visible from the Subtransmission network. Each is one of: - The geographical area supplied by a Bulk Supply Point (or group or part thereof) providing supplies at a voltage below 66 kV; - The geographical area supplied by a Primary Substation supplied at 66 kV (or group or part thereof); - A customer directly supplied at 132 kV or 66 kV (or by a dedicated BSP or 66 kV Primary Substation) .
EREC	Engineering Recommendation	A document published by the Energy Networks Association.
EPR	Ethylene Propylene Rubber	Cable type used on the network.
EHV	Extra High Voltage	Voltages over 20 kV up to, but not including, 132 kV.
FCO	First Circuit Outage	P2/7 defines a First Circuit Outage as: <i>...a fault or an arranged Circuit outage...</i> Also referred to as N-1 in some contexts.
FES	Future Energy Scenarios	A set of scenarios developed by National Grid to represent credible future paths for the energy development of the United Kingdom.
GIS	Gas-Insulated Switchgear	Switchgear with gas used as the insulating and current-breaking medium.
–	Generation	The production of electrical energy.
GB	Great Britain	A geographical, social and economic grouping of countries that contains England, Scotland and Wales.
GSP	Grid Supply Point	A substation comprising one or more Super Grid Transformers and associated switchgear.
GT	Grid Transformer	The transformers used at a Bulk Supply Point.
–	Group Load	The demand and generation of each GSP, BSP and Primary substation group.
HDC	Hard Drawn Copper	Overhead line type used on the network.
–	Heat Pump	Extracts heat from surroundings, which can then be used to produce hot water or space heating. There are a number of types of heat pumps; the common air source heat pumps absorb heat from the outside air.
HV	High Voltage	A nominal voltage of more than 1,000 volts but not more than 22,000 volts.

HSL	-	Cable type used on the network.
H-Type	-	Cable type used on the network.
LIFO	Last In First Out	ANM logic where most recently connected ANM customers are the first have their output altered.
LW or LTW	Leading the Way	The most ambitious DFES scenario that forecasts the volumes and regional distribution of low carbon technology uptake in our region. This uses stakeholder-informed bottom up analysis to align with national industry developed future energy scenarios.
LTDS	Long Term Development Statement	An annually published document that sets out the use and likely development of the distribution network and the DNO's plans for modifying the distribution system for the following two years.
–	Loose Couple	Interconnection at a lower voltage level which could cause circulating current at a higher voltage. Typically found at lower voltage busbars of Primary substations or BSPs.
–	National Grid	The Transmission Network Operator in England and Wales.
NG ESO	National Grid Electricity System Operator	National Grid Electricity System Operator is the electricity system operator for Great Britain.
NGET	National Grid Electricity Transmission	National Grid Electricity Transmission owns the electricity transmission network in England and Wales.
NDP	Network Development Plans	A plan published every two years as required by SLC 25B to provide stakeholders with transparency on network constraints and needs for flexibility.
NDR	Network Development Report	A component of the NDP that provides readers with valuable additional information on potential development projects.
NHR	Network Headroom Report	Annually published dataset to indicate where it is anticipated that there will be network capacity to accommodate future connections and where flexibility services may be required.
Ofgem	Office of Gas and Electricity Markets	Ofgem is responsible for regulating the gas and electricity markets in the United Kingdom to ensure customers' needs are protected and promotes market competition.
–	Primary Distribution	The sections of an electrical distribution network which provide the interface between transmission and Primary or Secondary Distribution. In WPD's network, the 33 kV circuits and Primary Substations are considered Primary Distribution.
–	Primary Substation	A substation comprising one or more primary transformers and associated switchgear.
–	Primary Transformer	A transformer that steps voltage down from 66 or 33 kV to 11 or 6.6 kV.

RVC	Rapid Voltage Change	A power quality issue related to voltage disturbance.
RDP	Regional Development Programme	A joint study between National Grid and WPD on possible 132 kV reinforcement options in the South West.
RAS	Remedial Action Scheme	Add-on module supplied by Siemens for PSS/E power system analysis software that enabled simulation of Corrective Action, control room actions in reaction to specific network conditions.
SCO	Second Circuit Outage	P2/7 defines a Second Circuit Outage as: <i>...a fault following an arranged Circuit outage...</i> Also referred to as N-1-1 or N-2 in some contexts.
SQC	Sequential Control	Method of managing the network without the need for manual intervention from a Control Engineer.
SoW	Statement of Works	The process under which DNOs request that National Grid assesses the potential impact of the connection of DG upon the National Electricity Transmission System.
SP	Steady Progression	The least ambitious DFES scenario that forecasts the volumes and regional distribution of low carbon technology uptake in our region. This uses stakeholder-informed bottom up analysis to align with national industry developed future energy scenarios.
–	Subtransmission	The sections of an electrical distribution network which provide the interface between transmission and primary or Secondary Distribution. In WPD's network the GSPs, 132 kV circuits and BSPs are considered Subtransmission.
SGT	Super Grid Transformer	Transformers used at a Grid Supply Point.
ST	System Transformation	Mid-level ambition DFES scenario that forecasts the volumes and regional distribution of low carbon technology uptake in our region. This uses stakeholder-informed bottom up analysis to align with national industry developed future energy scenarios.
TANM	Transmission Active Network Management	The process of a Transmission operator using flexible network customers autonomously and in real-time to increase the utilisation of network assets without breaching operational limits.
UK	United Kingdom	A geographical, social and economic grouping of countries that contains England, Scotland, Wales and Northern Ireland.
WPD	Western Power Distribution	A DNO that is licenced by Ofgem to distributed electricity in the East Midlands, West Midlands, South West, and South Wales regions of United Kingdom.
WPD BV or BV	WPD Best View	An amalgamation of the other four scenarios which covers the most likely growth pathway that WPD expect to materialise.
XLPE	Cross-Linked Polyethylene	Cable type used on the network.

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