

Glossary

RIIO-ED2 Business Plan Commitments Report

Electricity Distribution

nationalgrid

Glossary

A

Application Programming Interface (API)

An Application Programming Interface (API) is a set of rules, protocols and tools that allows different software applications to communicate and exchange data or services. An API provides a standard way to make requests for data and to receive responses, offering a seamless mechanism for data exchange.

Area of Outstanding Natural Beauty (AONB)

AONBs are now known as National Landscapes. National Landscapes are legally protected landscapes, designated as such to conserve and enhance their special natural beauty, wildlife, cultural heritage and the communities within them.

Automation

Computer controlled decision making linked to remotely controlled devices which allows electricity supplies to be quickly rerouted without the need to send a person to the site.

B

Biodiversity

The total range of the variety of life on earth and how they fit together. It means having as wide a range of different species in an ecosystem as it can support, recognising the environmental benefits this can achieve.

Broad Measure of Customer Satisfaction (BMCS)

An incentive scheme made up of a customer satisfaction survey, an assessment of how complaints are dealt with and a review of stakeholder engagement. It is designed to drive improvements in the quality of the overall customer experience by capturing and measuring customers' experiences of contact with their DNO across the range of services and activities the DNOs provide.

Business Carbon Footprint (BCF)

A calculation which represents the effect our work has on the environment. BCF is measured and reported using equivalent tonnes of carbon dioxide to express the impact of energy usage in offices, emissions from vehicles and the release of greenhouse gases. BCF is used to encourage DNOs to consider the direct carbon impact of conducting their operations and to be proactive in the reduction of emissions.

C

Call Back Assist

A customer service feature that allows customers to retain their place in a queue at busy times and receive a call back when an advisor becomes available.

Capacity

The amount of power that can be distributed through an asset or the network.

Capital Expenditure (Capex)

Expenditure on investment in long-lived distribution assets, such as underground cables, overhead electricity lines and substations.

Centre for Sustainable Energy (CSE)

An independent national charity that helps people and organisations from the public, private and voluntary sectors meet the twin challenges of rising energy costs and climate change.

Clean Power

Clean Power refers to electricity generated with minimal to zero greenhouse gas emissions. Clean Power 2030 is a UK government action plan to rapidly transition the nation's electricity system to a low carbon model by 2030.

Community Energy Groups

Community-led organisations involved in renewable generation, energy efficiency, flexibility, local supply, and wider decarbonisation activities.

Connected Data Portal

NGED's online platform providing access to network data, operational information and open datasets for customers and stakeholders.

Connections Reform

Connections Reform is a National Energy Systems Operator (NESO) led reform of the electricity network connections process in Great Britain. Approved by Ofgem, Connections Reform is focused on changing the order of projects in the connections queue with the aim of clearing a backlog of unviable developments.

Customer Effort Score (CES)

A measure of how easy it is for customers to interact with NGED and achieve the outcome they need.

Customer Interruptions (CIs)

The number of customers whose supplies have been interrupted per 100 customers per year over all incidents, where an interruption of supply lasts for three minutes or longer, excluding re-interruptions to the supply of customers previously interrupted during the same incident.

Customer Minutes Lost (CMLs)

The average duration of interruptions to supply per year per customer, where an interruption of supply to customer(s) lasts for three minutes or longer.

D

DESNZ

Department for Energy Security and Net Zero.

Demand Turn Up

A service where large energy users or generators are paid to increase their electricity consumption or decrease their power generation when there is excess energy on the system – typically overnight and weekend afternoons.

Dispatch Events

A dispatch event is when procured flexibility services are activated.

Distributed Energy Resources (DER)

Smaller power sources embedded in the distribution network that can be used to provide the power to meet demand.

Distribution Future Energy Scenarios (DFES)

Annual forecasts developed by NGED's DSO describing potential future electricity demand, generation, and low carbon technology uptake to support network planning and investment decisions.

Distribution Network Operators (DNOs)

A DNO is a holder of an electricity distribution licence. There are 14 DNOs which are owned by six different ownership groups. NGED holds licences for four DNOs.

Distribution System Operator (DSO)

It is anticipated that changes to the energy sector will require Distribution Network Operators to evolve from a traditional, passive role of network management to a Distribution System Operator with full operational responsibility for forecasting energy production and demand along with identifying which parts of the network require extra capacity and seeking the provision of that capacity through new flexibility services or traditional network reinforcement.

E

ED2 Monitoring Group (ED2MG)

An independent stakeholder group established to review NGED's progress against RIIO-ED2 Business Plan commitments, provide challenge and scrutiny, and ensure stakeholder views continue to influence delivery throughout the price control period.

Electricity System Operator

Now known as the National Energy System Operator.

Energy Local Model

A community energy model that enables local electricity consumers to benefit from locally generated renewable electricity by matching demand with local generation output.

Employee Resource Groups (ERGs)

Voluntary, employee-led groups that develop programmes of activity to further our Diversity, Equity and Inclusion goals. Groups help build awareness and understanding of inclusion and diversity.

Exceptional events

Events beyond the control of the DNO that impact on network performance, this could include instances of severe weather or significant one off events. Exceptional events can be exempted from calculations of network performance when strict criteria are met and verified by Ofgem.

F

Flexible Connections

Standard connections allow customers to import or export up to the full rated capacity noted in their connection agreement at all times of normal network operation. The customer is free to use the capacity assigned at any level they choose without further involvement from the network operator. However, where there is insufficient capacity, and costly and/or time consuming reinforcement is required, NGED has developed a range of 'flexible' connections which enable more active management of capacity to limit export and load at times of peak demand, which enables new connections to be made without the need for network reinforcement.

Flexibility Markets

Market mechanisms used by NGED to procure services that increase, reduce, or shift electricity demand or generation to support efficient operation of the network.

FlexUp

A Demand Turn Up flexibility service developed by NGED that encourages additional electricity consumption during periods of high renewable generation, helping reduce renewable energy curtailment.

Fluvial flooding

Flooding related to river or coastal sites.

Fuel poverty

Fuel poverty describes circumstances where customers struggle to afford electricity and to effectively heat their properties. Whilst NGED is not directly responsible for dealing with fuel poverty we refer customers to a network of expert partners for further advice and assistance.

G

Gate 1 Offer

A connections offer issued as part of Connections Reform that provides customers with an indicative connection position before progression to a confirmed connection agreement.

Gate 2 Offer

A formal connections offer issued under the Connections Reform process that confirms a customer's connection date, connection point and queue position, subject to qualifying criteria.

Grid Supply Point (GSP)

A connection point at which the Transmission system is connected to a Distribution system. Voltage is stepped down from 400kV to 132kV.

H

Heat Pump

Systems which capture heat energy from the ground, bodies of water or air. They can be used for space heating, water heating, heat recovery and cooling in a range of buildings. A supply of electricity is required to power the heat pump system.

I

Innovation projects

Projects that seek to find new and better ways of working. Projects can focus on network performance and efficiency, low carbon networks, smart grids and meters, reducing

impact on the environment, developing customer service and helping vulnerable customers.

Interruption Incentive Scheme (IIS)

The Interruption Incentive Scheme is a financial incentive mechanism that provides annual rewards or penalties based on a DNO's performance against its targets for the number of customers interrupted per 100 customers (CI) and the number of customer minutes lost per customer (CML).

L

Load

The amount of power flowing through an asset or a network. This may also be referred to as demand. Maximum demand is compared to capacity to determine if the network needs to be reinforced.

Local Area Energy Plan (LAEP)

A strategic plan developed by local authorities and stakeholders that identifies the actions required to transition a local area's energy system to support decarbonisation and net zero ambitions.

Local Area Energy Planner Plus (LAEP+)

An online mapping and modelling platform developed through an NGED innovation project that allows local authorities and network operators to assess energy use, identify decarbonisation opportunities and support local energy planning.

Low Carbon Technology (LCT)

This is the collective term for devices that reduce the amount of carbon being used for heating, transport and generation. It includes electric vehicles, heat pumps and solar generation.

M

Major Connections Annual Report (MCAR)

An annual report that provides information on NGED's performance in relation to major electricity connections, stakeholder engagement and improvements to connections services.

Market Gateway

NGED's digital flexibility platform that enables customers and service providers to register flexibility assets, participate in flexibility markets and access flexibility services.

Medically Dependent Customers

Customers who rely on electricity as a result of a health condition.

N

National Energy System Operator (NESO)

Formerly the Electricity System Operator. NESO is an independent, public corporation responsible for planning Great Britain's electricity and gas networks, operating the electricity system, and creating insights and recommendations for the future whole energy system.

National Grid Electricity Distribution (NGED)

The name of the electricity distribution network operator that holds four distribution licences for West Midlands, East Midlands, South Wales and South West. NGED is the new name for the company formally known as Western Power Distribution (WPD).

Network Asset Risk Metrics (NARMs)

A common electricity industry methodology used to assess network risk by considering both asset condition and the impact that asset failure would have on customers and the network.

Net zero

The UK's Climate Change Act (2008) sets out how the UK tackles climate change. The act says that by 2050 the UK Government must reduce greenhouse gas emissions by at least 100% compared with 1990 levels.

Network & Information Systems Regulations (NIS Regulations)

Provide legal measures to boost the level of security (both cyber and physical resilience) of network and information systems for the provision of essential services and digital services.

Nominal Prices

The nominal value of something is its current price.

O

Office of Gas and Electricity Markets (Ofgem)

Ofgem is responsible for regulating the gas and electricity markets and network monopolies in the UK to ensure customers' needs are protected.

P

Perfluorocarbon Tracer (PFT)

A chemical that is injected into fluid filled cables, used to speed up the location of leaks.

Pluvial flooding

Flooding related to excessive rainwater (flash flooding).

Power Up

Our referral service which arranges for a partner organisation to provide help for customers who are struggling to pay for energy.

Price Control

NGED is a regional monopoly – our customers are such because of where they live and work. NGED is therefore regulated by Ofgem to make sure that we provide a high level of service for the money we are allowed to charge. The money we can earn is set for a specific period of time and determined through a process that assesses proposed activities and associated costs. The process results in determining the financial mechanisms that determine what costs can be recovered from customers. The RIIO-ED2 price control covers the period from 1 April 2023 to 31 March 2028.

Priority Services Register (PSR)

A database that records details about customers in vulnerable circumstances so that we can provide additional support if needed.

R

Regional Energy Strategic Plan (RESP)

A National Energy System Operator (NESO) initiative intended to support coordinated planning and development of regional energy systems across Great Britain.

Reinforcement

The provision of more network capacity by installing more assets or installing higher rated assets

Resilience

The ability of the network to withstand, adapt to and recover from disruptive events such as storms, flooding and other major incidents, while maintaining critical services.

Revenue = Incentives + Innovation + Outputs (RIIO)

The current regulatory framework, introduced for electricity distribution in 2015/16. It places emphasis on incentives to drive the innovation needed to deliver a sustainable energy network at value for money to existing and future consumers.

RIIO Electricity Distribution 1 (RIIO-ED1)

The eight-year price control period that runs from 1 April 2015 to 31 March 2023. It is the first electricity distribution price control that uses the RIIO framework for setting allowances.

RIIO Electricity Distribution 2 (RIIO-ED2)

The five-year electricity distribution price control period that runs from 1 April 2023 to 31 March 2028. Ofgem has determined that the RIIO-ED2 price control will be five years in length.

S

Science-based targets (SBTs).

The Science Based Targets initiative (SBTi) is a corporate climate action organisation that

provides standards, tools and guidance which allow companies to set greenhouse gas emissions reduction targets in line with what is needed to keep global heating below catastrophic levels and reach net zero by 2050 at the latest. Targets are considered 'science-based' if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to 1.5 ºC above pre-industrial levels.

Solar Photovoltaic (Solar PV)

Technology that directly converts sunlight into electricity.

Substation

A part of the distribution network that transforms voltage and allows the re-routing of power by switching the configuration. It contains transformers, switchgear and equipment that protects the network components by interrupting supplies when there is a fault. Substations vary in size from bulk supply points that supply tens of thousands of customers to pole mounted substations that may supply a single rural property.

Sulphur Hexafluoride (SF_6)

A gas widely used as an insulating medium in transmission and distribution equipment. It has excellent insulating properties but is a potent greenhouse gas. It continues to be used because there are limited alternatives available.

T

Technical Network Losses

The amount of energy that enters an electricity network is more than the amount that is delivered to customers. Losses can occur in a number of ways, including the heating effect of energy passing through cables and wires. Technical network losses are the electricity units lost owing to the physical properties of the network.

Totex

The licensee's total expenditure (with limited exceptions) on regulated business activities. It includes both capital and operating expenditure items that the licensee has control over.

Transmission system

The transmission system is the 400kV and 275kV network used to transport electricity around the country from sources of large scale generation such as power stations and offshore wind farms to substations that feed into DNO electricity networks. The NGED network is connected to the National Grid Electricity Transmission system at a number of grid supply points.

U

Unrestricted Domestic Tariff

The estimated annual cost of electricity distribution to the typical domestic customer, calculated under the Common Distribution Charging Methodology and assuming specific consumption of 3,100kWh. The tariff charge will vary for each licence area depending on customer numbers and the nature of the network.

V

Vulnerable Customers

Vulnerable customers include those customers who are medically dependent upon electricity, have special communication requirements, have other special needs with a dependence upon electricity (e.g. stair lift), are elderly, have a transient vulnerability to a power cut (e.g. such as those who have recently left hospital) or need assistance with energy affordability.

W

Whole System Outcomes

Working with partners across the whole energy system (including Transmission system operators and other distribution network operators). Coordinating activities in order to ensure that networks as a whole are managed efficiently and in the best interest of consumers.

Worst Served Customers

Customers who experience 12 or more higher voltage interruptions over a three-year period, (with a minimum of two interruptions per year).

National Grid Electricity Distribution (East Midlands) plc, No2366923
National Grid Electricity Distribution (West Midlands) plc, No3600574
National Grid Electricity Distribution (South West) plc, No2366894
National Grid Electricity Distribution (South Wales) plc, No2366985
Registered in England and Wales
Registered Office: Avonbank, Feeder Road, Bristol, BS2 0TB

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