

YG-DCO-006

Yorkshire Green Energy Enablement (GREEN) Project

Volume 1

Document 1.4 Glossary

Final Issue A

November 2022

Planning Inspectorate Reference: EN020024

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(q)

nationalgrid

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Glossary

Glossary of terms used in the Application

Term	Definition
2TW/YR 400kV overhead line	Existing 400kV overhead line running between Norton Substation and Osbaldwick Substation.
Abnormal Indivisible Loads	Large loads to be delivered to the construction site, which by their nature cannot be broken into smaller multiple deliveries.
Above Ordnance Datum	An Ordnance Datum or AOD is a vertical datum used by an ordnance survey as the basis for deriving altitudes on maps. A spot height may be expressed as AOD. Mean sea level is often used for the datum.
Accidents and Safety	In the context of traffic and transport, the risk of accidents occurring due to a change in the character of traffic resulting from the Project.
Acoustic Environment	The sound with contribution from all sources, as modified by the current environment and associated conditions. This is related to the ambient sound, which is the totally encompassing sound in a given situation at a given time, usually composed of sound from many sources near and far.
Acute Health Effect	An adverse health effect that manifests itself immediately or shortly after exposure to a causative factor (e.g. soil contamination). Associated with short-term exposures.
Additional measures	Actions that will require further activity in order to achieve the anticipated outcome. Where additional measures are required, an assessment of the residual effects is subsequently undertaken.
Agricultural Land Classification	A standardised method for classifying agricultural land according to its

Term	Definition
Air Quality Management Areas	<p>versatility, productivity, and workability, based upon inter-related parameters including climate, relief, soil characteristics and drainage. These factors form the basis for classifying agricultural land into one of five grades (with Grade 3 land divided into Subgrades 3a and 3b), ranked from excellent (Grade 1) to very poor (Grade 5). ALC is determined using the MAFF Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land, 1988¹.</p>
Air Quality Objectives	<p>If a local authority finds any places where the Air Quality Objectives (AQO) are not likely to be achieved, it must declare an AQMA there. The area covered can range from one or two streets, to much larger areas. The local authority will put together a plan to improve the air quality – a Local Air Quality Action Plan (AQAP).</p> <p>AQOs are policy targets often expressed as a maximum ambient concentration not to be exceeded, either without exception or with a permitted number of exceedances, over a specified averaging period.</p>
Air Quality Standards	<p>The AQS Regulations report limit values at differing averaging periods for certain pollutants. There are limits provided for the protection of human health for sulphur dioxide (SO₂), nitrogen dioxide (NO₂), Benzene, carbon dioxide (CO₂) and lead (Pb). Target values have been set for the concentration of PM_{2.5}.</p>
Annex 1 Habitat	<p>Annex 1 Habitat refers to a habitat as defined under the EU Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.</p>
Archaeological Interest	<p>A heritage asset with value from the potential to hold evidence about the past</p>

¹ Natural England. (1998). Agricultural Land Classification of England and Wales: Revised criteria for grading the quality of agricultural land (ALC011). [Online].

Term	Definition
Architectural/Artistic Interest	that can be retrieved though specialist investigation.
Area of Outstanding National Beauty	An Area of Outstanding National Beauty (AONB) is land protected by the Countryside and Rights of Way Act 2000 (CROW Act). It protects the land to conserve and enhance its natural beauty.
Artificial ground	Deposits that have accumulated or been placed through human activity.
Associated development	Development which is associated with a Nationally Significant Infrastructure Project (NSIP), as defined in section 115 of the Planning Act 2008 (the Act). It should be subordinate to, and necessary for, the construction and/or the effective operation of the NSIP that is the subject of the Development Consent Order (DCO) application.
Authorised development	“Authorised development” means the development and associated development described in Part 1 of Schedule 1 (authorised development) of the draft Development Consent Order and any other development authorised by the Order, which is development within the meaning of section 32 of the Planning Act 2008.
Background sound/noise level	Known as the LA90, T. this is the noise level exceeded 90% of the time and is therefore used to represent background noise levels in the absence from the noise source being assessed.
Baseline	The situation prevailing before the Project is commenced (the current baseline), and also to the situation that projected in the future without the Project (the projected future baseline).
Bedrock geology	Bedrock geology (also known as ‘solid’ geology) is a term used for the main mass of rocks forming the Earth that are present everywhere, whether exposed at

Term	Definition
Best and Most Versatile agricultural land	the surface in outcrops or concealed beneath superficial deposits or water.
Biodiversity Net Gain	Defined as land of excellent (ALC Grade 1), very good (Grade 2) and good (Subgrade 3a) agricultural quality. BMV agricultural land is afforded a degree of protection against development within planning policy.
Biodiversity Mitigation Strategy	Biodiversity Net Gain (BNG) is a concept that can be simply defined as providing more biodiversity than that which is lost through development. National Grid has made a commitment to delivering a BNG target of 10% above baseline on its development projects (as agreed with Ofgem).
Birds of Conservation Concern	The Biodiversity Mitigation Strategy (BMS) describes the mitigation measures that National Grid will implement during the construction of the Project (and beyond as appropriate), which are required to avoid, reduce and compensate for adverse effects, and to ensure compliance with legislation and best practice, in respect of biodiversity
Bronze Age	Quantitative criteria are used to assess the population status of bird species found in the UK, which are placed on the red, amber or green list, with those on the red list being at most risk.
Cable Sealing End Compound	-2,600BCE to -700BCE
Chronic Health Effect	Electrical infrastructure used as the transition point between overhead lines and underground cables. A compound on the ground acts as the principal transition point.
Circuit	An adverse health effect that occurs as a result of long-term regular or continuous exposure to a causative factor (e.g. soil contamination).
Circuit	A set of wires along which current flows and returns. It is necessary to have a complete circuit for current to flow. In AC transmission circuits, each consists of three phases.

Term	Definition
Code of Construction Practice	A Code of Construction Practice (CoCP) sets out the requirements, standards and procedures to which a developer and/or contractor must adhere in order to manage the potential environmental effects of construction works.
Conductor	A material that allows electricity to flow through it. This are the wires or cables that for overhead lines and underground cables.
Construction Traffic Management Plan	A Construction Traffic Management Plan (CTMP) sets out the requirements for the management of construction traffic.
Corridor	A broad area, within which a new overhead line could be routed.
Cross-arm	The part of a pylon from which the conductors hang. These support the insulator set which the current carrying conductors are attached to.
Countryside Rights of Way Act 2000	The Countryside Rights of Way Act 2000 (CROW Act) is for the purpose of conserving an area's natural beauty; to make provision with respect to the driving of mechanically propelled vehicles elsewhere than on roads.
Cumulative effects	Cumulative effects arise as a result of the Project in combination with other large-scale existing developments, approved projects or projects in the application process as set out in Section 1 of Planning Inspectorate Advice Note 17 ² Cumulative effects assessment relevant to Nationally Significant Infrastructure Projects.
Decibel	Noise is conventionally measured in decibels (dB). The ratio between the quietest audible sound and the loudest tolerable sound is a million to one in terms of the change in sound pressure. Due to this wide range, a scale based on logarithms is used in noise level

² The Planning Inspectorate (2019) Advice Note 17: Cumulative effects assessment to nationally significant infrastructure projects. Available at: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-17/> (Accessed: 10/10/2022)

Term	Definition
	measurement. The scale used is the dB scale which extends from 0 to 140dB corresponding to the intensity of the sound pressure level.
Demographic	Relating to the structure of populations.
Development Consent Order	The consent for a Nationally Significant Infrastructure Project required under the Planning Act 2008.
Direct effects	Direct effects are those that result directly from the Project.
Distribution Network Operator	Companies that owns and operates the power lines and infrastructure that connect the National Grid network to individual properties
Double tee	A connection from both circuits on either side of the same structure, creating a third and fourth circuit on another structure.
Driver delay	Traffic delays to non-development traffic.
Dust	Generic term used to describe larger non-respirable airborne particulates (typically those which are deposited rapidly and normally associated with soiling / marking of property, cars, vegetation etc.).
Early Medieval	410 to 1066 CE.
East Coast Main Line Railway (ECML)	Electrified railway between London and Edinburgh.
Effects	For the purposes of the EIA, the term 'effects' are the consequences of changes or impacts (e.g. habitat becomes degraded by changes in drainage pattern).
Electricity System Operator (ESO)	National Grid Electricity System Operator Limited (NGESO) controls the movement of electricity around the country, transporting power from generators (such as wind farms) to local distribution network operators, like Northern Powergrid, ensuring that supply meets demand.
Electricity transmission system	The electricity transmission system is made up largely of 400kV, 275kV and

Term	Definition
	<p>132kV assets connecting separately owned generators, interconnectors, large demands fed directly from the transmission system, and distribution systems. The ‘transmission’ classification applies to assets at 132kV or above in Scotland or offshore. In England and Wales, it relates to assets at 275kV and above.</p> <p>The electricity transmission system is designed to make sure there is sufficient transmission capacity to ensure that the system can be operated in an economic and efficient way by the ESO, ensuring power can be moved from where it is generated to demand centres across Britain. This planning and development of the electricity transmission system is governed by the Security and Quality of Supply Standard (SQSS) which ensure that the network is developed and operated securely and is resilient to any foreseeable network faults and disruption.</p>
Electromagnetic fields	<p>Electric fields are created by differences in voltage: the higher the voltage, the stronger will be the resultant field. Magnetic fields are created when electric current flows: the greater the current, the stronger the magnetic field. An electric field will exist even when there is no current flowing. If current does flow, the strength of the magnetic field will vary with power consumption, but the electric field strength will be constant</p>
Embedded environmental measures	<p>Modifications to the location, design or operation of the Project to mitigate against environmental impacts. These can be an inherent part of the project (primary), additional action post-consent (secondary), or actions resulting from processes external to the EIA (tertiary). This includes legislative requirements. Also sometimes referred to as embedded measures.</p>
Environmental Gain	<p>National Grid has defined ‘Environmental Gain’ with Ofgem as being an amalgam of BNG and the status of Natural Capital</p>

Term	Definition
Environmental Impact Assessment (EIA)	(NC). This sees a simple formula being used to calculate overall EG. An Environmental Impact Assessment (EIA) is a tool for systematically examining and assessing the impacts and effects of a development on the environment. The objective of the EIA is to identify any likely significant effects which may arise from the Project on the environment and identify measures to prevent, reduce or offset any significant adverse effects.
Environmental Statement	The outcome of the EIA process is reported within a document called an Environmental Statement.
Equipotential Zones	A protection measure comprising an arrangement of conducting metallic footplates, designed to ensure that dangerous potential differences do not appear across the body of personnel working near ground-based machinery.
Fear and intimidation	In the context of traffic and transport, these may be experienced by people as a result of an increase in traffic volume and its proximity or the lack of protection caused by such factors as narrow pavement widths.
Finds Liaison Officer (FLO)	Works on behalf of the Portable Antiquities Scheme (PAS) which is managed by the British Museum and records archaeological finds discovered by the public. The PAS works with national and local partners and delivers through its network of locally based Finds Liaison Officers, the PAS Central Unit (based at the British Museum), National Finds Advisers, interns and volunteers.
Flood Risk Assessment (FRA)	The Flood Risk Assessment (FRA) will assess the flood risk both to and from the Project and demonstrate how that flood risk will be managed over the Project's lifetime.
Future baseline	This is the theoretical situation that would exist in the absence of the Project. This is based upon extrapolating the current baseline using technical knowledge of

Term	Definition
Future Energy Scenarios	likely changes over the identified period (for example anticipated habitat change over time, climate change projections, traffic and waste volume growth over time, etc.).
Good practice measures	Published annually by the Electricity Systems Officer to indicate future power requirements and where future connections may occur across the network. Actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislative requirements or actions that are considered to be standard practice used to manage commonly occurring environmental effects. These are referred to as 'tertiary measures' in accordance with the IEMA guidelines ³ and would also be embedded within the design of the Project.
Graduated Swathes and Graduated Siting Areas	Indicates the broad areas where the components of the new overhead lines and substation and CSEC siting areas forming part of the Project are likely to be located with the areas considered more likely to be developed shown as a darker colour.
Ground dissolution (of limestone)	A reduction in the solid mass of rock as a result of groundwater dissolving it. This loss of mass can cause ground instability at the surface.
Ground gas	A general term to include all gases occurring and generated within the ground whether originating from Made Ground or from natural soil or rock. Typically used to mean only potentially hazardous ground gases, such as carbon dioxide, methane, hydrogen sulphide, carbon monoxide and radon.
Habitat of Principal Importance	Habitats of Principal Importance (HPI) are covered under Section 41 of the Natural Environment and Rural

³ IEMA. (2016). Environmental Impact Assessment Guide to: Delivering Quality Development. Lincoln: IEMA

Term	Definition
Habitats Regulations Assessment	Communities (NERC) Act 2006 ⁴ . The term is interchangeable with 'UK Priority BAP Habitat', 'Section 41 habitat' and 'NERC s41 habitat'.
Heavy Duty Vehicle / Heavy Goods Vehicle	Goods vehicles + buses >3.5t gross vehicle weight.
Hectare	Unit of area in the metric system equivalent to 10,000 square metres
Heritage significance	The significance of a heritage asset is the product of the value it holds for this and future generations as a result of its historic, archaeological, architectural or artistic interests.

⁴ UK Government. (2006). Natural Environment and Rural Communities Act 2006. [Online]. Available at: <https://www.legislation.gov.uk/ukpga/2006/16/contents> [Accessed: 03/10/2022].

⁵ UK Government. (2017). The Conservation of Habitats and Species Regulations 2017. [Online]. Available at: <https://www.legislation.gov.uk/uksi/2017/1012/contents/made> [Accessed: 03/10/2022].

⁶ UK Government. (2017). The Conservation of Offshore Marine Habitats and Species Regulations 2017. [Online]. Available at: <https://www.legislation.gov.uk/uksi/2017/1013/contents/made> [Accessed: 03/10/2022].

⁷ European Union. (1992). Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. [Online].

Term	Definition
Historic environment record (HER)	These contain details on local archaeological sites and finds, historic buildings and historic landscapes and are regularly updated. This information is usually held in a database with a digital mapping system (Geographic Information System). There are over 80 HERs in England which are maintained and managed by local authorities.
Historical interest	A heritage asset with value from its association with past events or past people; or where a heritage asset is illustrative of a particular asset type, theme, or period.
Holford Rules	The “Holford Rules” are a series of planning guidelines first developed in 1959 by Lord Holford, adviser to the then Central Electricity Generating Board on amenity issues, to guide the routing of overhead lines which should be followed by developers when designing their proposals.
Horizontal Directional Drilling	A construction method used to install the ducts required for the installation of electricity cables underground without the need to construct trenches.
Horlock Rules	The Horlock Rules are a set of guidelines on the design and siting of substations and were established by National Grid in 2009 in pursuance of its duties under Schedule 9 of the Electricity Act 1989.
Impacts	For the purposes of the EIA and this Environmental Statement the term ‘impacts’ is used to describe the changes that arise as a result of the Project (e.g. changes in drainage pattern because of the hole in the ground).
In-combination effects	In-combination effects occur as a result of two or more impacts acting together (i.e. combined), to result in a new or changed effect on a single receptor.
Index of Multiple Deprivation	The Index of Multiple Deprivation (IMD) is the official measure of relative deprivation for small areas (neighbourhoods) in England. The IMD is calculated based on the following factors:

Term	Definition
Indirect and secondary effects	income deprivation, employment, health and disability, education, skills and training, barriers to housing and services, crime and living environment.
Insulator	Indirect and secondary effects are those which are not caused immediately by the Project but arise as a consequence of it. As such they would normally occur later in time or at locations farther away than direct effects. An example would be where water or gas pipes are damaged as a result of the Project, and the consequence of that damage is fire or flood risk to other receptors.
Inter-project effects	Insulators are part of an insulator set which in turn supports the conductors, which carry the electrical power and are at a high voltage, from the pylon steelwork which is taken to be at zero or earth potential (i.e. 0V). Insulators can be made of porcelain or toughened glass.
Interim Report	Arise as a result of the Project in combination with other large-scale developments or projects.
Intra-project effects	Produced to provide a record of archaeological features that have been excavated, showing where these features are and offering preliminary interpretation.
Iron Age	Effects that occur as a result of two or more impacts acting together from the same project (i.e. combined, to result in a new or changed effects on a single receptor).
Kilometre	-800 BCE to 43 CE.
Kilovolts	A unit of linear measurement (1,000 metres).
Landscape Character Area	Kilovolt (kV) is equal to 1,000 volts.
	Discrete geographical areas of a particular landscape type with a broadly consistent character, which might include pattern of topography, land use, vegetation cover, geology, cultural and ecological features, pattern of evolution,

Term	Definition
	visual and perceptual qualities and habitats.
Landscape Character Type	Generic, typically homogenous types of landscape that may occur in different parts of the country. They have similar geology, topography, drainage patterns, vegetation, land use, patterns of settlement and aesthetic character.
Light Duty Vehicle / Light Goods Vehicle	Cars and small vans <3.5t gross vehicle weight.
Limits of Deviation	Identify a maximum distance or measurement of variation within which the permanent works must be constructed. These comprise lateral (i.e., on the ground) and vertical limits (in relation to height).
Listed Building	A building or structure of special historical or architectural/artistic interest. Designated by the Department for Digital, Culture, Media and Sport. All buildings built before 1700 which survive in anything like their original condition are likely to be listed, as are most buildings built between 1700 and 1850.
Local Geological Sites	A non-statutory designation for regionally important geological and geomorphological sites that have been identified as being of importance locally.
Local Wildlife Site	Non-statutory nature conservation sites of local value.
Lower Layer Super Output Area	Lower Layer Super Output Area (LSOAs) are a geographic hierarchy designed to improve the reporting of small area statistics in England and Wales.
Lowest Observed Adverse Effect Level	This is the level above which adverse effects on health and quality of life can be detected.
Made ground	Made ground is land where natural and undisturbed soils have largely been replaced by man-made or artificial materials.
Medieval	1066 to 1540 CE.
Mesolithic	-10,000 to -4,000 BCE.

Term	Definition
Metre	A unit of linear measurement.
Mobile elevating work platforms	A type of equipment that allows working at height comprising a working platform on an extending structure and chassis, with controls for operation.
Modern	1901 to present.
National Cycle Network	The National Cycle Network (NCN) is a UK-wide network of signed paths and routes for walking, cycling, wheeling and exploring outdoors.
National Grid Electricity Transmission ('National Grid')	National Grid operate the national electricity transmission network across Great Britain and own and maintain the network in England and Wales, providing electricity supplies from generating stations to local distribution companies. National Grid Electricity Transmission does not distribute electricity to individual premises.
Nationally Significant Infrastructure Project	A type of project listed in the Planning Act 2008, which must be consented by a Development Consent Order.
Natural capital	The total stock of natural resources and services provided by natural assets which benefit people.
Natural Superficial Deposits	Geologically recent deposits that consist of various sediments (clay, sand, gravel etc.) and sit on top of the bedrock.
Neolithic	-4,000 to -2,200 BCE.
Nitrous Dioxide	Reddish brown gas (in high concentrations), respiratory irritant and precursor to photochemical processes which produce other pollutants, photochemical smog and contribute to global warming.
Nitrous Oxide	Inert product of combustion, which does not contribute to local air pollution.
Non-Road Mobile Machinery	A broad category which includes mobile machines, and transportable industrial equipment or vehicles which are fitted with an internal combustion engine and not intended for transporting goods or passengers on roads.

Term	Definition
Noise and Vibration Management Plan	Noise and Vibration Management Plan (NVMP) incorporates the measures proposed and procedures for the management of noise and vibration arising from the construction of the Project.
Ofgem	The Office of Gas and Electricity Markets, supporting the Gas and Electricity Markets Authority, is the government regulator for the electricity and downstream natural gas markets in Great Britain.
Optical Ground Wire	A type of cable which runs between the tops of the pylons. The conductive part of the cable serves to bond adjacent pylons to earth ground or ground potential, and shields the high-voltage conductors from lightning strikes. The optical fibres within the cable can be used for high-speed transmission of data.
Options appraisal	A robust and transparent process used to compare Project options and to assess the positive and negative effects they may have across a wide range of criteria including environmental, socio-economic, technical and cost factors. The outcome is to identify a Strategic Proposal for the Project.
Options identification and selection	Work undertaken to determine the preferred corridor and preliminary routeing and siting options for the Project. It is intended to demonstrate how National Grid's statutory duties, licence obligations, policy considerations, environmental, socio-economic, technical, cost, and programme issues have been considered and provide information on the approach to the identification and appraisal of route corridors and siting locations.
Order Limits	The extent of the area within which the Project may be carried out.
Outline Soils Management Plan	The Outline Soil Management Plan (OSMP) sets out principles and procedures for general good practice mitigation tailored to specific soil types,

Term	Definition
Overhead line	for the handling, storage and reinstatement of soil to be used for the Project to minimise adverse effects on the nature and quality of the soil resource.
Overhead Line Noise Assessment	Infrastructure carrying electric current, strung from pylon to pylon.
Palaeolithic	An appraisal of the character and significance of overhead line noise as a material outcome of the Project.
Particulate Matter	-1,000 000 to -10,000 BCE.
Pathway (for contamination)	PM is the term used to describe condensed phase (solid or liquid) particles suspended in the atmosphere. Their potential for causing health problems is directly linked to the size of the particles. PM ₁₀ is particulate matter with a diameter of 10 microns or less. PM _{2.5} is particulate matter 2.5 microns or less in diameter.
Pedestrian amenity	A route or means by which a receptor could be, or is, exposed to or affected by a contaminant.
Pedestrian delay	The effect on the relative pleasantness of a pedestrian journey as a result of changes in traffic flow, traffic composition and pavement width / separation from traffic.
Permanent effects	The ability of people to cross roads as a result of changes in traffic volume, composition and speed, the level of pedestrian activity, visibility and general physical conditions.
Phytotoxic	These are effects that will remain even when the Project is complete, although these effects may be caused by environmental changes that are permanent or temporary.
Post-Excavation Assessment (PXA)	Displaying toxicity towards plants.
Post-Excavation Assessment (PXA)	An appraisal of the character and significance of data and material evidence acquired through archaeological excavations.

Term	Definition
Post Medieval	1540 to 1901 CE
Power control devices	Power control devices are designed to increase or decrease the apparent reactance of an overhead line, thereby pushing power away from or pulling more power towards the circuit on which they are installed.
Preliminary Environmental Information Report	A report setting out the findings of the Environmental Impact Assessment and to support consultation on Preliminary Environmental Information as set out in The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ⁸ .
Primary measure	Environmental measures referred to as ‘primary embedded measures’ comprise modifications to the location, design or operation of the Project made during the pre-application phase so are an inherent part of the Project, and do not require additional action to be taken. Examples include locating a pylon so as to avoid an effect on a designated site or sensitive receptor.
Project Need Case	Sets out the reasons why the Project is required.
Public Rights of Way	These are designated routes under the Countryside and Rights of Way Act 2000 ⁹ , which the public can use at any time.
Public Rights of Way Management Plan	Public Rights of Way Management Plan (PRoWMP) sets out National Grid’s approach to managing Public Rights of Way throughout the duration of the Project
Pylon	Overhead line structure used to carry overhead electrical conductors, insulators and fittings.

⁸ UK Government. (2017). The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. [Online]. Available at: <https://www.legislation.gov.uk/uksi/2017/572/contents> [Accessed: 04/10/2022].

⁹ UK Government. (2000). Countryside and Rights of Way Act 2000. [Online]. Available at: <https://www.legislation.gov.uk/ukpga/2000/37/contents> [Accessed: 04/10/2022].

Term	Definition
Radon	A naturally occurring radioactive chemical element, which occurs as a gas.
Ramsar sites	Wetlands of international importance designated under the Ramsar Convention.
Rating (electricity)	This term refers to the maximum amount of power that the equipment within a substation can safely operate in.
Rating level (noise)	The specific sound level, with the addition of character corrections to consider certain acoustic features that could potentially increase the significance of impact. If no acoustic features are present, then the rating level is equal to the specific sound level.
Receptor	A component of the natural or man-made environment such as water or a building that is affected by impacts or changes resulting from a Project.
Reconductoring	The replacement of old conductors (wires), insulators, earthwires, etc on an existing overhead line and may also require pylon steelwork and foundations to be strengthened or replaced.
Registered Battlefield	Register of nationally significant military engagements maintained and designated by Historic England.
Registered Park and Garden	Sites of particular historic significance typically comprising gardens, grounds and other planned open spaces, such as town squares and identified on the Register of historic parks, gardens, grounds, and planned open spaces is maintained and designated by Historic England.
Road links	A linear spatial object that describes the geometry and connectivity of a road network between two points in the network.
Rochdale Envelope	The 'Rochdale Envelope' or 'Design Envelope' is an approach to consenting and Environmental Impact Assessment, named after a UK planning law case,

Term	Definition
Romano-British	which allows the promoters of projects to broadly define their projects within agreed parameters to retain flexibility of design.
Root Protection Area	A notional area of tree root spread (as calculated per BS5837) considered as the minimum volume necessary to ensure tree health and function.
Section 41 of Natural Environment and Rural Communities Act 2006	Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC Act 2006) lists species of principal importance in England for the purpose of conserving biodiversity.
Schedule 1 Species	Bird species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) ¹⁰ , for which it is an offence to intentionally or recklessly disturb birds and their young at, on or near an 'active' nest.
Scheduled Monument	Nationally important archaeological and heritage assets and sites protected by the Ancient Monuments and Archaeological Areas Act 1979 ¹¹ . Designated by the Department for Digital, Culture, Media and Sport. These can be above or below-ground and do not need to be ancient.
Scoping Opinion	A Scoping Opinion is requested from the Planning Inspectorate on behalf of the SoS, to inform the requirements of EIA process and ultimately the ES which will be submitted as part of the application for development consent. Through the scoping process the views of the statutory consultees and other relevant organisations on the proposed scope of the EIA are sought.
Scoping Red Line Boundary	This was a boundary defined in the earlier stages of the Project at scoping, to represent the likely maximum extent of

¹⁰ UK Government. 1981. Wildlife and Countryside Act 1981. [Online]. Available at: <https://www.legislation.gov.uk/ukpga/1981/69> [Accessed: 04/10/2022].

¹¹ UK Government. (1979). Ancient Monuments and Archaeological Areas Act 1979. [Online]. Available at: <https://www.legislation.gov.uk/ukpga/1979/46> [Accessed: 04/10/2022].

Term	Definition
Security and Quality of Supply Standard	development at that time. Since the issue of the Scoping Opinion and further design development, this boundary has been refined and replaced by the Order Limits.
Setting	The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate an asset, or may be neutral.
Severance	The separation of people from places and other people and places, or impedance of pedestrian access to essential facilities.
Significant Observed Adverse Effect Level	This is the level above which significant adverse effects on health and quality of life occur.
The Site	Term used describe all the land within the Order Limits.
Site of Ecological Importance	An old system of designated sites designated by the local authority (Leeds City Council) on the basis of their wildlife and amenity value which are gradually being reviewed and reassessed against new LWS selection criteria and where they qualify will be replaced by LWS.
Site of Importance for Nature Conservation	Non-statutory nature conservation sites designated by North Yorkshire County Council and York unitary authority. These are equivalent to LWS.
Site of Special Scientific Interest	An area of land designated by Natural England, under the Wildlife and Countryside Act 1981 ¹⁰ , as of special interest by reason of its flora, fauna or geological or physiographical features.

Term	Definition
Siting Area	An area of land within which a new CSEC or substation could be sited.
Source (of contamination)	A substance that is in, on or under the land and that has the potential to cause harm or to cause pollution of Controlled Waters (territorial waters, coastal waters, inland freshwaters and groundwaters (as defined in section 104, Water Resources Act 1991 ¹²)).
Special Areas of Conservation	Protected areas in the UK designated under the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales.
Special Protection Areas	Protected areas for birds in the UK classified under the Wildlife & Countryside Act 1981 (as amended) ¹⁰ and the Conservation of Habitats and Species Regulations 2017 (as amended) ⁵ in England and Wales. Areas classified under regulation 15 of the Conservation of Habitats and Species Regulations 2017 ⁵ which have been identified as being of international importance for the breeding, feeding, wintering or the migration of rare and vulnerable species of birds.
Species of Principal Importance	Covered under Section 41 of the NERC Act 2006. The term is interchangeable with 'UK Priority BAP Species', 'Section 41 species' and 'NERCs41 species'.
Specific sound level	The equivalent continuous A-weighted sound pressure level produced by a specific sound source (i.e. the sound source under assessment in accordance with BS4142:2014) at the assessment location over a given reference time interval, Tr.
Strategic Proposal	The outcome of the strategic options appraisal; the Strategic Proposal is then taken forward to the Options Identification and Selection stage.

¹² UK Government, 1991, Water Resources Act, <https://www.legislation.gov.uk/ukpga/1991/57/contents>

Term	Definition
Strategic Road Network	The Strategic Road Network (SRN) is made up of motorways and trunk roads (the most significant 'A' roads).
Study Area	Area over which data has been collected and a technical assessment in the Environmental Impact Assessment has been undertaken. The extent of the Study Area varies depending on the type of assessment and nature of the Project.
Substation	Electrical equipment in an electric power system through which electrical energy is passed for transmission, transformation, distribution or switching.
Super Grid Transformer	Used at substations along the electricity transmission system to increase or reduce voltage.
Temporary effects	These are effects that are related to environmental changes associated with a particular activity and that will cease when that activity finishes.
Tertiary measures	Measures that would occur with or without input from the EIA feeding into the development process. These include actions that will be undertaken to meet other existing legislative requirements or actions that are considered to be standard practice used to manage commonly occurring environmental effects, for example, standard control measures implemented during construction.
Transboundary effects	Transboundary effects are those effects that would affect the environment in another state within the European Economic Area (EEA).
Tree Preservation Order	A statutory designation protecting trees, administered by the relevant local planning authority.
Underground Cable	An insulated conductor carrying electric current designed for underground installation.
United Kingdom Institute for Conservation (UKIC)	Now known as ICON (Institute for Conservation) which is a professional body raising the standards of

Term	Definition
Updated Project Design (UPD)	conservation practice through Accreditation, a Code of Conduct, Professional Standards and Complaints Procedure.
Vibration	Vibration is an oscillatory motion. The magnitude of vibration can be defined in terms of displacement, i.e. how far from the equilibrium something moves, velocity (how fast something moves), or acceleration (the rate of change of velocity).
Visual effect	The change in the appearance of the landscape or townscape as a result of the development. This can be positive or negative.
World Heritage Site	A natural or man-made site, area, or structure recognised as being of outstanding international importance and therefore as deserving special protection. Sites are nominated to and designated by the World Heritage Convention.
XC/XCP 275kV overhead line	Existing 275kV overhead line running between Monk Fryston and Poppleton.
XD/PHG 275kV Tadcaster Tee to Knaresborough overhead line	Existing 275kV overhead line running between Tadcaster Tee and Knaresborough.
Yorkshire Green Energy Enablement (GREEN) Project (the Project, also known as Yorkshire GREEN)	The Project is required to reinforce the north to south boundary flow by 2027 enabling National Grid to meet future system demands.
YN overhead line	Proposed overhead line connecting Overton Substation and the existing YR 400kV overhead line
Zone of Influence	An identified geographical area around the Project where there is a potential for impacts to occur.
Zone of Theoretical Visibility	The likely (or theoretical) extent of visibility of a development, usually shown on a map.

Abbreviations used in the Application

Abbreviation	Definition
AADT	Annual Average Daily Traffic
AEP	Annual Exceedance Probability
AIDB	Ainsty Internal Drainage Board
AIL	Abnormal Indivisible Load
ALC	Agricultural Land Classification
AOD	Above Ordnance Datum
AONB	Area of Natural Beauty
AQAP	Air Quality Action Plan
AQEG	Air Quality Expert Group
AQMA	Air Quality Management Area
AQO	Air Quality Objectives
AQS	Air Quality Standards
ASR	Annual Status Report
ATV	All Terrain Vehicle(s)
BGS	British Geological Survey
BHS	British Horse Society
BMS	Biodiversity Mitigation Strategy
BMV	Best and Most Versatile
BNG	Biodiversity Net Gain
BNL	Basic Noise Level
CAR-SOIL	Control of Asbestos Regulations 2012 (applied to contaminated Soil)
CAZ	Clean Air Zone
CC	City Council + Climate Change
CCG	Clinical Commissioning Group
CDM	Construction (Design and Management)
CEA	Cumulative Effects Assessment
CIEEM	Chartered Institute of Ecology and Environmental Management

Abbreviation	Definition
CIRIA	Construction Industry Research Information Association
CO	Conservation Objective
CO	Carbon Monoxide
CoCP	Code of Construction Practice
COMAH	Control of Major Accident Hazards
CPRS	Corridor and Preliminary Routing and Siting Study
CPRS	Corridor and Preliminary Routing and Siting Study
CRT	Canal and Rivers Trust
CRTN	Calculation for Road Traffic Noise
CSEC	Cable Sealing End Compound(s)
CTMP	Construction Traffic Management Plan
CYC	City of York Council
DBA	Desk Based Assessment
DCO	Development Consent Order
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DLL	District Level Licencing
DMP	Drainage Management Plan
DMRB	Design Manual for Roads and Bridges
DMS	Delivery Management System
DNO	Distribution Network Operator
DPD	Development Plan Document
EA	Environment Agency
ECML	East Coast Mainline
EG	Environmental Gain
EIA	Environmental Impact Assessment

Abbreviation	Definition
ELC	European Landscape Convention
ELF EMFs	Extremely Low Frequency Electric and Magnetic Fields
EM	Electro-magnetic
EMF	Electric and Magnetic Fields
EPA	Environmental Protection Act 1990
EPS	European Protected Species
ES	Environmental Statement
ESA	Employment and Support Allowance
ESDAL	Electronic Service Delivery for Abnormal Loads
EU	European Union
FEED	Front-End Engineering Design
FIDB	Foss Internal Drainage Board
FRA	Flood Risk Assessment
FY	Future Year
GCN	Great Crested Newts
GEART	Guidelines for Environmental Assessment of Road Traffic
GI	Ground Investigations
GLVIA	Guidelines for Landscape and Visual Impact Assessment
GP	General Practitioner
GPA	Good Practice Advice
GPP	Guidance for Pollution Prevention Notes
GPS	Global Positioning System
HBC	Harrogate Borough Council
HDC	Hambleton District Council
HDD	Horizontal Directional Drilling
HDV	Heavy Duty Vehicle
HE	Historic England
HER	Historic Environment Record

Abbreviation	Definition
HGV	Heavy Good Vehicle
HIA	Health Impact Assessment
HND	Holistic Networks Design
HPI	Habitat of Principal Importance
HRA	Habitats Regulation Assessment
HSA	Hydrological Study Area
HSE	Health and Safety Executive
HSI	Habitat Suitability Index
HUDU	Healthy Urban Development Unit
IAQM	Institute of Air Quality Management
ICNIRP	International Commission on Non-Ionizing Radiation Protection
IDB	Internal Drainage Board
IMD	Indices of Multiple Deprivation
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
JSNA	Joint Strategic Needs Assessment
KUOIDB	Kyle Upper Ouse Internal Drainage Board
LAQM	Local Air Quality Management
LCA	Landscape Character Areas
LCC	Leeds City Council
LCRM	Land Contamination Risk Management
LCT	Landscape Character Type
LDV	Light Duty Vehicle
LGV	Light Goods Vehicle
LILA	Locally Important Landscape Area
LLFA	Lead Local Flood Authorities
LNR	Local Nature Reserve
LOAEL	Lowest Observed Adverse Effect Level

Abbreviation	Definition
LoD	Limits of Deviation
LRN	Local Road Network
LV	Light Vehicle(s)
LVIA	Landscape and Visual Assessment
L_w	Guaranteed maximum sound power level
LWS	Local Wildlife Site
MAFF	Ministry for Agriculture, Fisheries and Food
MAGIC	Multi-Agency Geographic Information for the Countryside
MOD	Ministry of Defence
NLA	National Landscape Charter
NLCA	National Landscape Character Assessment
NCA	National Charter Areas
NCN	National Cycle Network
NDHA	Non-Designated Heritage Assets
NE	Natural England
NERC	Natural Environment and Rural Communities Act 2006 (As amended)
NEYEDC	North and East Yorkshire Ecological Data Centre
NGESO	National Grid Energy System Operator
NGET	National Grid Electricity Transmission
NGN	Northern Gas Network
NH	National Highways
NHLE	National Heritage List for England
NHS	National Health Service
NIHHS	Installations Handling Hazardous Substances (Amendment) Regulations 2002
NMP	National Mapping Programme
NO ₂	Nitrogen Dioxide

Abbreviation	Definition
NOA	Network Options Assessment
NOEL	No Observed Effect Level
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NPS (EN-1)	National Policy Statement for Energy
NPS (EN-5)	National Policy Statement for Electricity Networks Infrastructure
NPSE	National Policy Statement for Noise
NRMM	Non-Road Mobile Machinery
NSER	No Significant Effects Report
NSIP	Nationally Significant Infrastructure Project
NSL	National Speed Limit
NSR	Noise Sensitive Receptors
NT	National Trust
NTEM	National Trip End Model
NR	Network Rail
NVC	National Vegetation Classification
NYCC	North Yorkshire Country Council
OAL	Open Access Land
OHL	Overhead Line
ONS	Office of National Statistics
OPGW	Optical Ground Wire
ORPA	Other Route with Public Access
OS	Ordnance Survey
PEIR	Preliminary Environmental Information Report
PIA	Personal Injury Accident
PINS	Planning Inspectorate
PM ₁₀	Particulate Matter (aerodynamic diameter) of 10µm

Abbreviation	Definition
PM _{2.5}	Particulate Matter (aerodynamic diameter) of 2.5µm
PPC	Pollution Prevention Control
PPE	Personal Protective Equipment
PPG	Pollution Prevention Guidance
PPG-N	Planning Policy Guidance - Noise
PRoW	Public Right of Way
PRoWMP	Public Right of Way Management Plan
RAMS	Risk Assessment Methods Statement
RBMP	River Basin Management Plan
RIGS	Regionally Important Geological Sites
RNAG	Reason for Not Achieving Good status
RoFSW	Risk of Flooding from Surface Water
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAGE	Stakeholder Advisory Group on ELF EMF
SDC	Selby District Council
SEI	Sites of Environmental Interest
SEO	Statement of Environmental Opportunity
SFRA	Strategic Flood Risk Assessment
SGI	Sites of Geological Interest
SGT	Super Grid Transformers
SINC	Site of Important Nature Conservation
SLA	Special Landscape Area
SO ₂	Sulphur Dioxide
SOAEL	Significant Observed Adverse Effect Level
SoS	Secretary of State
SOR	Strategic Options Report
SPA	Swept Path Assessment
SPI	Species of Principle Importance

Abbreviation	Definition
SPR	Strategic Proposal Report
SPZ	Source Protection Zones
SRN	Strategic Road Network
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage System
TCC	Temporary Construction Compound
TCO	Transport Coordination Officer
TSRGD	Traffic Sign Regulations and General Directions
TRO	Traffic Regulation Order
TRU	Trans-Pennine Route Upgrade
UKBAP	UK Biodiversity Action Plan
UXO	Unexploded Ordnance
WFD	Water Framework Directive
WHO	World Health Organization
WIMS	Water Quality Archive
WSI	Written Scheme Investigation
WWTW	Waste-Water Treatment Works
YOR	York
YWT	Yorkshire Wildlife Trust
ZOI	Zone of Influence
ZTV	Zone of Theoretical Visibility

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