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Norwich to Tilbury

Volume 6: Environmental Statement

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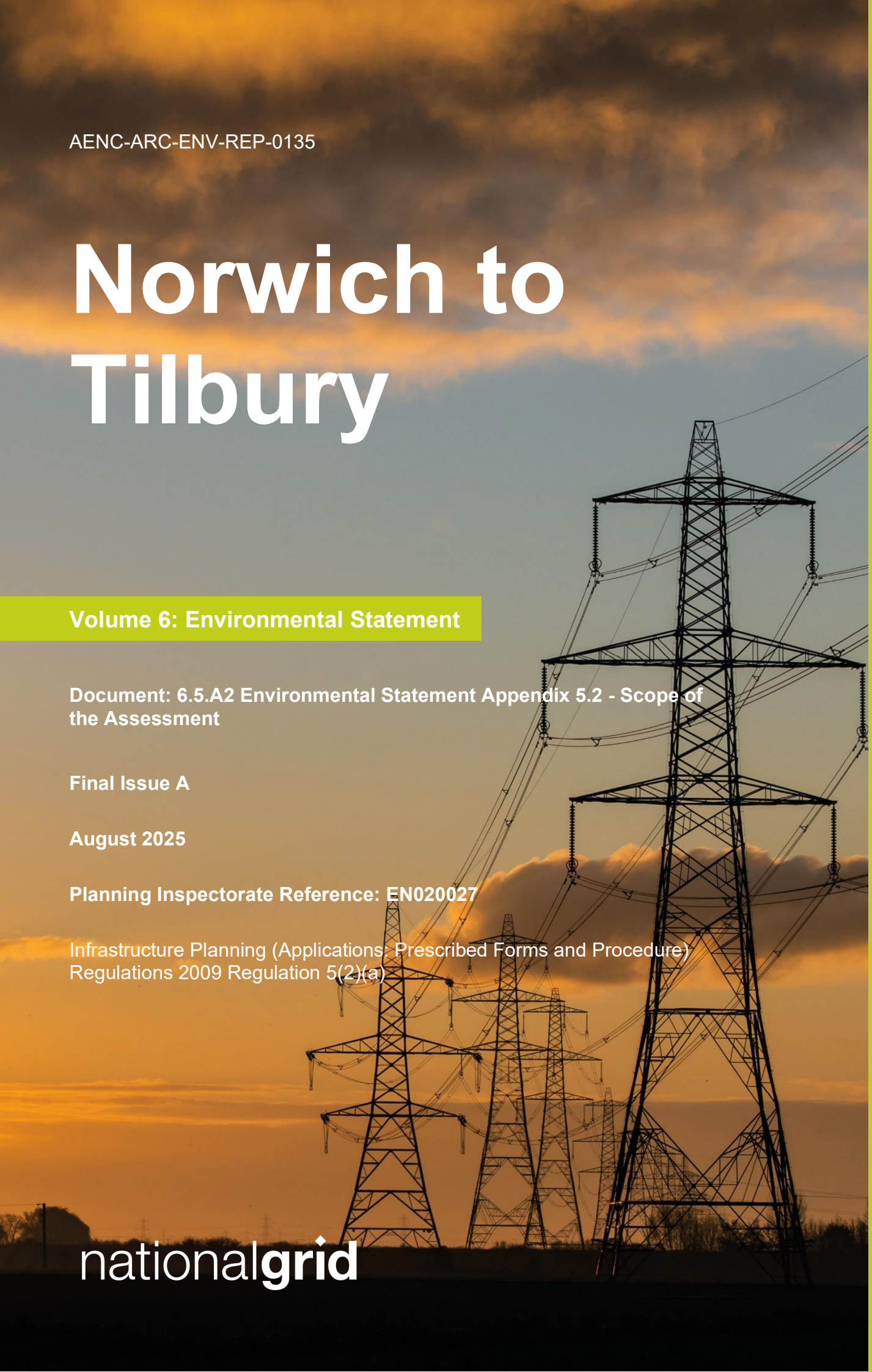

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Contents

5. Scope of the Assessment

5.1 Introduction

5.1.1 This appendix has been produced to support Chapter 5: EIA Approach and Methodology (document reference 6.5), which forms part of the Environmental Statement (ES) (Volume 6 of the Development Consent Order (DCO) application) for Norwich to Tilbury (the 'Project').

5.1.2 The scope of the assessment presented in Table A5.2.1 has been informed by the Environmental Impact Assessment (EIA) Scoping Report (document reference 6.19) and EIA Scoping Opinion (document reference 6.20) provided by the Planning Inspectorate in 2022 on behalf of the Secretary of State. The scope has also been informed through consultation and engagement with relevant consultees together with changes in guidance and policy. Where the scope has changed from the EIA Scoping Opinion (document reference 6.20), these changes are highlighted in red text.

5.1.3 Table A5.2.1 outlines the aspects of each environmental topic which have been scoped in and out of the assessment within the ES (Volume 6 of the DCO application).

Table A5.2.1 Aspects scoped in and out of the assessment within the Environmental Statement

Environmental Topic	Aspects Scoped In	Aspects Scoped Out
Chapter 6: Agriculture and Soils (document reference 6.6)	• Effects from temporary loss of agricultural land during construction • Effects from permanent loss of agricultural land during operation (and maintenance) • Effects on agricultural holdings /operations during construction • Effects on soil quality associated with ecosystem services during construction	• Effects on agricultural holdings during operation (and maintenance) • Effects on soil quality associated with ecosystem services during operation (and maintenance) • Economic effects on landowners and farmers during construction and operation (and maintenance) • Maintenance or repair works required which would result in disturbance to soils during operation (and maintenance) • Impact on soil ecosystem functions during operation (and maintenance) • Impacts to agricultural operations during operation (and maintenance) • Effects from Electromagnetic Fields (EMF) on land use during operation (and maintenance)
Chapter 7: Air Quality (document reference 6.7)	• Effects from construction dust (scoped in following engagement with stakeholders) • Effects of construction traffic on local air quality receptors (as screening criteria is exceeded) • Effects from construction generators during construction	• Effects of operational vehicle emissions • Effects from diverted traffic during construction
Chapter 8: Ecology and Biodiversity (document reference 6.8)	• Effects on the following international sites designated for biodiversity:	• Effects on all biodiversity receptors less than ‘local’ value during construction and operation (and maintenance)

Environmental Topic	Aspects Scoped In	Aspects Scoped Out
	– Thames Estuary and Marshes Ramsar and Special Protection Area (SPA) (construction and operation (and maintenance)) – Stour and Orwell Estuaries Ramsar and SPA (construction and operation (and maintenance)) – Norfolk Valley Fens Special Area of Conservation (SAC) (construction only) • Effects on national sites designated for biodiversity during construction • Effects on national sites designated for biodiversity during operation (and maintenance) for the following sites: – Mucking Flats and Marshes Site of Special Scientific Interest (SSSI) – South Thames Estuary and Marshes SSSI – National sites which underly European sites (i.e. Stour and Orwell Estuaries Ramsar and SPA, and Thames Estuary and Marshes Ramsar and SPA) • Effects on local (statutory) sites designated for biodiversity during construction • Effects on protected / notable habitat / species during construction: – Ancient woodland – Habitats of Principal Importance in England (HPIE)	• Effects on international sites designated for biodiversity: – Redgrave and South Lopham Fens Ramsar site (construction and operation (and maintenance)) – Waveney and Little Ouse Valley Fens SAC (construction and operation (and maintenance)) – Norfolk Valley Fens SAC (operation (and maintenance)) • Effects on national sites designated for biodiversity during operation (and maintenance), with the exception of: – Mucking Flats and Marshes SSSI – South Thames Estuary and Marshes SSSI – National sites which underly European sites (and maintenance) (i.e. Stour and Orwell Estuaries Ramsar and SPA, and Thames Estuary and Marshes Ramsar and SPA). • Effects on local (statutory) sites designated for biodiversity during operation (and maintenance) • Effects on protected / notable habitat / species during operation (and maintenance): – Ancient woodland

Environmental Topic	Aspects Scoped In	Aspects Scoped Out
	– 'Important' hedgerows – Vascular and non-vascular plants and fungi – Fish, terrestrial invertebrates, reptiles, breeding birds, wintering/passage birds, badger, bats, hazel dormouse, otter, water vole, white-clawed crayfish, amphibians and other species listed under Section 41 of the Natural Environment and Rural Communities Act (2006) • Effects on great crested newt (GCN) during construction and operation (and maintenance) - information presented in the Impact Assessment and Conservation Payment Certificate (IACPC) to include the Project's impact on GCN and the compensation provided to be included in the ES • Effects on wintering/passage birds, bats and other species listed under Section 41 of the Natural Environment and Rural Communities Act (2006)) during operation (and maintenance) • Effects on Groundwater Dependent Terrestrial Ecosystems (GWDTEs) during construction and operation (and maintenance) • Effects from the introduction and/ or spread of Invasive Non-Native Species (INNS) during construction and operation (and maintenance) • Effects on other notable mammals (brown hare hedgehog, and harvest mouse) during construction and operation (and maintenance)	– HPIE – 'Important' hedgerows – Vascular and non-vascular plants and fungi – Fish, terrestrial invertebrates, reptiles, breeding birds, badger, hazel dormouse, otter, water vole, white-clawed crayfish, and amphibians • The following pathways to effect have been scoped out of the ES: – Air quality changes (resulting in habitat loss/ modification): Dust emissions during construction (with the exception of ancient woodland) – Air quality changes (resulting in habitat loss/ modification): Vehicle emissions during operation (and maintenance) – Hydrological changes in surface water during operation (and maintenance).

Environmental Topic	Aspects Scoped In	Aspects Scoped Out
	• The following pathways to effect have been scoped into the ES: – Collision of nocturnal species with machinery during construction – Disturbance of protected/ notable fauna from lighting during construction – Disturbance of protected/ notable fauna from noise, vibration or visual stimuli during operation (and maintenance) – Hydrological changes in surface water during construction – Habitat loss and fragmentation during construction – Habitat fragmentation or severance during operation (and maintenance) – Air quality changes (resulting in habitat loss/ modification): Dust emissions during construction on ancient woodland – Killing or injury of protected / notable species	
Chapter 9: Contaminated Land, Geology and Hydrogeology (document reference 6.9)	• Effects on sites of geological importance during construction and operation (and maintenance) • Effects on mineral reserves during construction and operation (and maintenance) • Disturbance and mobilisation of existing contamination during construction • Introduction of new contamination at trenchless crossing locations during construction and operation (and maintenance)	• Effects arising from geohazards and ground instability during construction and operation (and maintenance) • Disturbance and mobilisation of existing contamination during operation (and maintenance) • Discovery of unexpected contamination during construction and operation (and maintenance)

Environmental Topic	Aspects Scoped In	Aspects Scoped Out
	• Effects of dewatering during construction • Effects from the connection of aquifer units during construction • Effects on groundwater flow and quality during construction and operation (and maintenance) • Effects on agricultural boreholes used for irrigation systems during construction and operation (and maintenance)	• Introduction of new contamination, in areas other than trenchless crossing locations, during construction and operation (and maintenance) • Effects of dewatering during operation (and maintenance) • Effect of discharge of groundwater during construction and operation (and maintenance) • Effects from the connection of aquifer units during operation (and maintenance)
Chapter 10: Health and Wellbeing (document reference 6.10)	• Effects on health-related environmental change (for example, air quality, noise, traffic and transport health related impacts) during construction and operation (and maintenance) • Effects on mental health and wellbeing • Effects on transport links to healthcare facilities during construction (if significant effects are likely)	• Effects of electric and magnetic fields during construction and operation (and maintenance)
Chapter 11: Historic Environment (document reference 6.11)	• Physical effects on archaeology during construction including from movement of contaminants or pollutants and permanent changes to groundwater flows as a result of underground cabling • Setting and indirect effects on archaeology during construction and operation (and maintenance) • Setting and indirect effects on built heritage during construction and operation (and maintenance)	• Physical effects on archaeology during operation (and maintenance) • Direct physical effects on built heritage during construction and operation (and maintenance) • Effects on inter-tidal and marine archaeology during construction and operation (and maintenance) • Impacts on the setting of built heritage located beyond the 250 m Study Area and

Environmental Topic	Aspects Scoped In	Aspects Scoped Out
	• Indirect physical effects on built heritage as a result of vibration or subsidence during construction and operation (and maintenance) • Physical impacts on designated historic landscapes (comprising registered parks and gardens) and non-designated historic landscapes during construction	outside the Zone of Theoretical Visibility (ZTV)
Chapter 12: Hydrology, Land Drainage and Flood Risk (document reference 6.12)	• Effects on surface water quality during construction • Effects on surface water quality from disturbance and mobilisation of existing contamination during construction • Effects on hydromorphology of watercourses during construction • Effects of flood risk from rivers and the sea during construction and operation (and maintenance) • Effects of flood risk from fluvial/ tidal, pluvial, groundwater flooding) during construction • Effects of flood risk from surface water and effects on the land drainage regime during construction and operation (and maintenance) • Effects of flood risk from groundwater during construction and operation (and maintenance) • Effects on existing water interests (abstractions and discharges) during construction • Effects on retained existing agricultural drainage during construction	• Effects on surface water quality during operation (and maintenance) • Effects on hydromorphology of watercourses during operation (and maintenance) • Effects of flood risk to and from other sources (sewers, reservoirs, artificial waterbodies) during construction and operation (and maintenance) (scoped out as agreed with relevant stakeholders) • Effects on existing water interests (abstractions and discharges) during operation (and maintenance)

Environmental Topic	Aspects Scoped In	Aspects Scoped Out
Chapter 13: Landscape and Visual (document reference 6.13)	• Effects on designated landscapes – Dedham Vale National Landscape (an Area of Outstanding Natural Beaty (AONB)) during construction and operation (and maintenance) • Effects on designated landscapes, landscape character and visual amenity at night during construction and operation (and maintenance) • Effects on landscape character during construction and operation (and maintenance) • Effects on visual receptors at representative viewpoints during construction and operation (and maintenance) • Effects on visual receptors at settlements / communities / groups of properties during construction and operation (and maintenance) • Effects on receptors travelling on roads during construction and operation (and maintenance) • Effects on recreational receptors, including users of Public Rights of Way (PRoWs) and long-distance routes and visitor attractions during construction and operation (and maintenance) • Effects on some private views for individual properties during construction and operation (and maintenance) to be considered in a Residential Visual Amenity Assessment (RVAA) (scoped in following engagement with stakeholders)	• Effects on visual receptors outside of the ZTV during construction and operation (and maintenance) • Visual effects on rail travellers during construction and operation (and maintenance)
Chapter 14: Noise and Vibration (document reference 6.14)	• Effects from noise and vibration during construction • Effects from traffic noise during construction	• Effects of vibration from construction traffic on the public highway during construction • Effects of noise from overhead lines (and fittings (e.g. insulators, dampers, spacers

Environmental Topic	Aspects Scoped In	Aspects Scoped Out
	• Effects from vibration on structures during construction • Effects of noise from substations during operation (and maintenance) • Effects of vibration during operation (and maintenance) • Effects of noise and vibration associated with substantial maintenance activities during operation	and clamps)), Cable Sealing End (CSE) compounds and underground cables during operation • Effects of noise and vibration associated with routine maintenance activities during operation
Chapter 15: Socio-Economics, Recreation and Tourism (document reference 6.15)	• Effects on the local economy and employment during construction • Effects on access to community facilities during construction and operation (and maintenance) • Effects on businesses where visual impact is likely to be an economic consideration during construction and operation (and maintenance) • Effects on tourism, recreational assets and open space during construction and operation (and maintenance) • Pressures on local visitor accommodation during construction • Effects on severance and sterilisation of land in the context of its potential for future development during construction and operation (and maintenance) • Effects on property values during operation (and maintenance)	• Effects on the local economy and employment during operation (and maintenance) • Financial effects on individual businesses during construction and operation (and maintenance) • Effects on property values during construction • Effects on local visitor accommodation during operation (and maintenance)
Chapter 16: Traffic and Transport (document reference 6.16)	• Effects of traffic and transport during construction • Impacts from management of waste	• Effects of traffic and transport during operation (and maintenance)

Environmental Topic	Aspects Scoped In	Aspects Scoped Out
	• Effects of Abnormal Indivisible Loads (AIL) during construction • Cumulative effects associated with access to Norwich Main Substation	
Chapter 17: Cumulative Effects (document reference 6.17)	• Intra-project cumulative effects during construction and operation (and maintenance) • Inter-project cumulative effects during construction and operation (and maintenance)	• No matters are proposed to be scoped out

5.1.4 In accordance with the EIA Scoping Report (document reference 6.19) and the EIA Scoping Opinion (document reference 6.20) the following topics have also been scoped out either as a separate ES chapter or because they are covered within other ES chapters:

- Major accidents and disasters – where appropriate, an assessment of the likely risks to the Project in relation to potential areas of vulnerability is included within separate topic chapters. For example, any flood risk concerns are considered within Chapter 12: Hydrology, Land Drainage and Flood Risk (document reference 6.12) and addressed as part of the Flood Risk Assessment (document reference 7.9)
- Material assets (and waste) - further information regarding materials and waste likely to be caused as a result of the Project is included within Chapter 4: Project Description (document reference 6.4)
- Climate - in terms of vulnerability to climate change National Grid has previously investigated whether climate change might require overhead lines to be redesigned but found there not to be a need. Flooding is, however, considered as part of the Flood Risk Assessment (document reference 7.9). Details of the likely construction materials are included within Chapter 4: Project Description (document reference 6.4) together with a simple estimate of the Greenhouse Gas emissions associated with the construction phase of the Project and potential opportunities to save carbon (see Appendix 4.1: Greenhouse Gas Assessment (document reference 6.4.A1))
- Decommissioning - a high-level summary of potential effects as a result of decommissioning for each environmental topic, is provided within Chapter 4: Project Description (document reference 6.4).

Abbreviations

Abbreviation	Full Reference
AIL	Abnormal Indivisible Loads
AONB	Area of Outstanding Natural Beauty
CSE	Cable Sealing End
DCO	Development Consent Order
EIA	Environmental Impact Assessment
EMF	Electric and Magnetic Fields
FSA	Flood Storage Area
GCN	Great Crested Newt
GDWTE	Groundwater Dependent Terrestrial Ecosystems
HPIE	Habitats of Principal Importance in England
IACPC	Impact Assessment and Conservation Payment Certificate
INNS	Invasive Non-Native Species
PRoW	Public Rights of Way
RVAA	Residential Visual Amenity Assessment
SAC	Special Area of Conservation
SLA	Special Landscape Areas
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
ZTV	Zone of Theoretical Visibility

Glossary

Term	Description
Abnormal Indivisible Loads	A large load which cannot 'without undue expense or risk of damage' be divided into two or more smaller loads for the purposes of being transported by road, and which exceeds limits set out in terms of weight (>44 tonnes), length (>18.65m), and width (>2.9m)
Ancient woodland	Land that has been continually wooded since at least 1600 in England. Regarded as 'irreplaceable habitat' in national planning guidance. Ancient woodland greater than 2ha is recorded on the Natural England Ancient Woodland Inventory
Biodiversity	The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems
Biodiversity Net Gain	Approach for developments ensure habitats for wildlife are left in a measurably better state than they were before the development
Cable Sealing End	Structures used to transfer transmission circuits between underground cables and overhead lines
Contaminated Land	Land where a substance or contaminant which is in or under the land which has the potential to cause significant harm or the significant possibility of significant harm to human health, property or protected species or significant pollution or the significant possibility of significant pollution to controlled waters
Dewatering	The removal of groundwater (e.g. by pumping) to keep a below-ground works area dry
Development Consent Order	A statutory instrument which grants consents and other rights to build a Nationally Significant Infrastructure Project, as defined by the Planning Act 2008
Electric and Magnetic Fields	All equipment that generates, distributes or uses electricity produces Electric and Magnetic Fields (EMF), and EMFs also occur naturally. Electric fields are created by differences in voltage: the higher the voltage, the stronger the resultant field. Magnetic fields are created when electric current flows: the greater the current, the stronger the magnetic field
Environmental Impact Assessment (EIA)	An assessment of the likely effects of a development project on the environment, which is reported in an Environmental Statement that is publicised and consulted on and taken into account in the decision on whether a project should proceed
Environmental Statement	The main output from the EIA process, an ES is the report required to accompany an application for development consent (under the Infrastructure Planning (EIA) Regulations 2017) to inform public and

Term	Description
	stakeholder consultation and the decision on whether a project should be allowed to proceed. The EIA Regulations set out specific requirements for the contents of an ES for Nationally Significant Infrastructure Projects
Environmental Topic	A subject area covered within the EIA, for example landscape and visual or biodiversity
Habitats of Principal Importance in England	Habitats identified under Section 41 of the Natural Environment and Rural communities (NERC) Act 2006 as being of high importance for biodiversity conservation in England
'Important' hedgerows	Hedgerows that meet specific ecological, historical or landscape criteria as defined under the Hedgerows Regulation 1997
Listed Building	A measure of a building's special architectural and historic interest. There are three categories of listed buildings, Grade I, II* and II depending on the level of interest
National Landscape (an Area of Outstanding Natural Beauty)	Formally designated under the National Parks and Access to the Countryside Act of 1949 to protect areas of the countryside of high scenic quality that cannot be selected for National Park status due to their lack of opportunities for outdoor recreation (an essential objective of National Parks). Since November 2023 all AONBs are referred to as National Landscapes
Public Right of Way	A footpath, bridleway or byway accessible to all members of the public
Substation	Substations are used to control the flow of power through the electricity system. They are also used to change (or transform) the voltage from a higher to lower voltage to allow it to be transmitted to local homes and businesses.

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National Grid plc
National Grid House,
Warwick Technology Park,
Gallows Hill, Warwick.
CV34 6DA United Kingdom

Registered in England and Wales
No. 4031152
nationalgrid.com