



One Earth Solar Farm

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Glossary of Terms and Abbreviations

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Contents

1. Glossary of Terms	2
2. Abbreviations	20

1. Glossary of Terms

Term	Definition
Abnormal Indivisible Load	Abnormal loads that cannot be divided into two or more loads to be transported by road and are in excess of the limits set out in the Road Vehicles (Construction and Use) Regulations 1986.
Access to Healthy Assets & Hazards Index	A health determinant comprised of four domains: access to retail services, access to health services, the physical environment and air pollution. Using the percentage of the population living in lower-layer super output areas in the worst quintile as the indicator focusses on the people exposed to the most health demoting environments.
Agrivoltaics	The simultaneous use of land for agriculture and solar photovoltaic array electricity generation
Ambient sound level, $L_a = L_{Aeq,T}$	The A-weighted equivalent continuous sound level of the totally encompassing sound for a given situation and time interval, T.
Annual average daily total (AADT) flows	A daily traffic flow (24 hours), expressed as a mean daily flow across all 365 days of the year (AADT) in units of vehicles per hour.
Annual Average Daily Traffic	A measurement of the average number of vehicles on a road over a year.
Applicant	One Earth Solar Farm Limited.
Aquifer	A subsurface layer or layers of rock or other geological strata of sufficient porosity and permeability to allow either a significant flow of groundwater or the abstraction of significant quantities of groundwater (definition taken from gov.uk website).
Archaeological interest	The potential for a heritage asset to hold archaeological interest is defined in NPS EN-1: 'There will be archaeological interest in a heritage asset if it holds, or may potentially hold, evidence of past human activity worthy of expert investigation at some point' (footnote 234).

Term	Definition
Archaeological interest	The potential for a heritage asset to hold archaeological interest is defined in NPS EN-1: <i>‘There will be archaeological interest in a heritage asset if it holds, or may potentially hold, evidence of past human activity worthy of expert investigation at some point’</i> (footnote 234).
ATC	Automatic Traffic Counts
A-weighting	Frequency weighting applied to measured sound in order to account for the relative loudness perceived by the human ear.
Baseline	Refers to existing conditions as represented by latest available survey and other data which is used as a benchmark for making comparisons to assess the impact of development.
Baseline conditions	The environment as it appears (or would appear) immediately prior to the implementation of the proposed development together with any known or foreseeable future changes that will take place before completion of development.
Battery Cells	Contains the electrodes, electrolyte and separator / membrane which allow the battery to store energy when submitted to an electrical current. Can have a range of battery chemistries such as lithium-ion.
Battery Energy Storage System	A containerised utility scale battery system, using lithium-ion technology, for the storage and release of electrical energy to aid in grid scale demand matching operations.
Battery Management System	Battery Management System (BMS) provides the control, monitoring and communications for the batteries in BESS as well as controlling any individual module cooling systems.
Battery Module	Consists of several battery cells connected together in series or parallel.
Battery Rack	A collection of battery modules which are combined to create a rack. These racks tend to be modular so one could be used on its own or multiple racks could be combined to create a larger capacity battery.

Term	Definition
Battery Unit	Containerised unit comprising of multiple battery cells, modules, racks, battery management system combining to produce a MWh storage capacity.
BESS Site	The designated area within the Proposed Development that houses the Battery Energy Storage System (BESS), including battery enclosures, inverters, transformers, and control systems.
Biodiversity Net Gain	BNG is a strategy to develop land contribution to the recovery of nature. It is a way for making sure the habitat for wildlife is in a better state than it was before development.
Book of Reference	The Book of Reference presents the interests identified through the Applicant's diligent land referencing enquiries. It lists all the land plots within the project, along with details of the owners, lessees, and occupiers of each plot.
Buried Heritage Assets	Heritage assets, including both Designated Heritage Assets and Non-Designated Heritage Assets (as defined above), that comprise buried remains (i.e. exist below present ground level).
Code of Construction Practice	The code sets out the standards and procedures to which developers and contractors must adhere to when undertaking construction of major projects. This will assist with managing the environmental impacts and will identify the main responsibilities and requirements of developers and contractors.
Community Liaison Group	A Community Liaison Group will be set up in accordance with the relevant DCO requirement prior to construction and will continue through until final decommissioning of the Proposed Development as a formal forum for local issues to be raised.
Community Liaison Officer	A Community Liaison Officer will be appointed as a key role with the responsibility to lead discussions with local communities through the Community Liaison Group. The Community Liaison Officer will act as the primary point of contact should there be any queries or complaints relating to the management of environmental impacts.

Term	Definition
Construction effects	Used to describe both temporary effects that arise during the construction phases as well as permanent existence effects that arise from the physical existence of development (for example new buildings).
Construction Environmental Management Plan	Subsequently produced following the appointment of the contractor, when the detailed design of the Proposed Development is known, in accordance with a requirement of the DCO prior to commencing construction. It will be a live document and will provide a systematic approach to environmental management so that environmental risks are identified, incorporated in all decision-making and managed appropriately.
Construction Traffic Management Plan	A document that sets out measures on how construction traffic, including site personnel movements, will be safely controlled during a construction period.
Consultation Masterplan	High level block plan used for non-stat consultation.
Crown Plans	The Crown Plans identify land that possesses a Crown interest within the project.
Cumulative Effects	The summation of effects that result from changes caused by a development in conjunction with other reasonably foreseeable development that is either consented but not yet constructed or is in the process of seeking consent.
DCO Application	The application submitted by the Applicant for development consent for the Proposed Development. .
Decibel	The logarithmically scaled measurement unit of sound.
Department for Transport	The UK Government department responsible for transport matters.
Design Flood Event	A flood event of a given annual flood probability, which is defined as the 1 in 100 year river or surface water flood (1 in 200 year event when tidal flooding is concerned), plus an appropriate allowance for climate change. This flood event is used to inform the level of mitigation for proposed development.
Design Manual for Roads and Bridges	A set of documents and design guidelines that contains information about current design standards relating to the design, assessment and operation of roads within the UK.

Term	Definition
Design Principles	High level statements that have guided the design of the Proposed Development and the Outline Design Parameters.
Designated Heritage Assets	As defined in Overarching National Policy Statement for Energy EN-1 ('NPS EN-1', Department for Energy Security and Net Zero, November 2023).
Development High Risk Area (coal mining)	A Development High Risk Area contains one or more recorded coal mining related features at surface or shallow depth, including mine entries; shallow coal workings; recorded coal mining related hazards; recorded mine gas sites; fissures and breaklines and previous surface mining sites.
East BESS Site	BESS Site to the east of the River Trent.
Emergency Response Plan	An Emergency Response Plan detailing the construction, operation and decommissioning phases will be developed in consultation with the local fire and rescue service during the detailed design phase and prior to the construction of the BESS Sites. The plan shall include information that can support operators and firefighters in effectively responding to a fire incident at the BESS Sites. The Emergency Response Plan is not part of the DCO or the BSMP; however, it is a requirement under the NFCC guidance.
Energy Management System	Energy Management System (EMS) monitors and controls the flow of energy within the BESS for efficient operation.
Environmental effect	The consequence of an impact on the environment.
Environmental impact	A physical or measurable change to the environment attributable to the Proposed Development.
Environmental Impact Assessment	The process of evaluating the likely significant environmental effects of a proposed project or development over and above the Baseline.
Environmental measures	Measures which are proposed to prevent, reduce and where possible offset any significant adverse effects (or to avoid, reduce and if possible, remedy identified effects (GLVIA3, 2013 Para 3.37).

Term	Definition
	<ul style="list-style-type: none"> > Environmental Statement: The written output presenting the full findings of the Environmental Impact Assessment. > European Protected Species: Species of plants and animals (other than birds) protected by law throughout the European Union.
Environmental Statement (ES)	A statement that includes the information that is reasonably required to assess the environmental effects of the development and which the applicant can, having regard to current knowledge and methods of assessment, reasonably be required to compile, but that includes at least the information referred to in the EIA Regulations.
European site	European sites are those that are designated through the Habitats Directive and Birds Directive (via national legislation as appropriate). Within England additional sites designated through international convention are given the same protection through policy – overall these are referred to as European sites (GLVIA3, 2013 Para 3.37).
Exceedance (Air Quality)	A period of time when the concentration of a pollutant is greater than the appropriate air quality objective. This applies to specified locations with relevant exposure.
Feature	<p>These are as defined in Regulation 5(2) of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and include population and human health, biodiversity, land, soil, water, air, climate, material assets, cultural heritage and landscape that may be at risk from exposure to pollutants which could potentially arise as a result of a proposed development.</p> <ul style="list-style-type: none"> > Future baseline: Refers to the situation in future years without the proposed development. > Impact: The change resulting from an action.
Fieldwork (Landscape)	Whereby Landscape Architects visit the Site and publicly accessible locations in the surrounding area to determine the existing landscape character and views.
Green Belt	A land-use designation to prevent urban sprawl by keeping land permanently open.

Term	Definition
Grid Connection Corridor	Corridor which represents the maximum extent of land within which the cable route would be located.
Grid Connection Substation	A compound containing electrical equipment to enable connection to the National Grid.
Ground Width	The front of the row to the back of the row measured along the ground, sometimes called the collector width
Groundwater	All water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil (legal definition as referenced on gov.uk website).
Heavy Goods Vehicle	A vehicle that is used to transport goods and materials and has a gross combination mass of more than 3,500 kg.
Hectare (ha)	A unit of area (10,000 m ² / 2.471 acres).
Heritage Significance (Value)	Significance is defined in NPS EN-1 with reference to the National Planning Policy Framework Annex 2 ('NPPF', 2024) as ' <i>The sum of the heritage interests that a heritage asset hold is referred to as its significance. Significance derives not only from a heritage asset's physical presence, but also from its setting</i> ' (paragraph 5.9.3, footnote 230). Heritage interests may be historic, archaeological, architectural or artistic. For the purposes of this assessment, significance is referred to as 'sensitivity' to avoid confusion with EIA terminology of 'significant environmental effect'.
High Marnham 400kV Substation	The proposed substation near Normanton on Trent in Nottinghamshire, owned and operated by National Grid and where the Grid Connection Cable will connect to.
Host Authorities	The Local Planning Authorities involved in the DCO process, including Bassetlaw District Council, West Lindsey District Council, Newark and Sherwood District Council, Nottinghamshire County Council and Lincolnshire County Council
Illustrative Masterplan	An interpretation of what the Proposed Development may look like if built within the controls provided by the Work Areas and Outline Design Parameters but may not be the worst case.

Term	Definition
Indirect effects	Effects that result indirectly from a proposed development as a consequence of the direct effects, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects. Often used to describe effects on landscape character that are not directly impacted by a proposed development such as effects on perceptual characteristics and qualities of the landscape.
Interconnecting Cable Corridor	The land outside of the Site and the Grid Connection Corridor in which the 400 kV cables linking the solar PV and BESS areas to the Grid Connection Substations will be installed.
Interconnecting Cables	33 kV cables which link the solar PV and BESS areas to the Grid Connection Substations. (This excludes the 400 kV Grid Connection Cable).
L _{A90,T}	The A-weighted sound level exceeded for 90% of the measurement period. Often referred to as the background sound level.
L _{Aeq,T}	A-weighted equivalent continuous sound level over a given time period. It is the sound level of a steady sound that has the same energy as a fluctuating sound over the same time period.
Land Plans	The Land Plans show each plot within the project, numbered uniquely so that the prefix of the plot number relates to the Land Plans sheet. Each plot is coloured to show the type of power that is required (either compulsory acquisition powers, temporary powers or rights acquisition powers).
Landscape	Defined by the European Landscape Convention as “an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors”. ¹

¹ Council of Europe (2007) *The European Landscape Convention*, *The European Landscape Convention*. Available at: <https://www.landscapeinstitute.org/policy/13732-2/> (Accessed: 11 December 2024).

Term	Definition
Landscape Character Area	defined by GLVIA3 ² as “a distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.”
Landscape receptor	GLVIA3 defines landscape receptors as “defined aspects of the landscape resource that have the potential to be affected by a proposal”.
Landscape Sensitivity	GLVIA defines sensitivity as: “A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor.”
Landscape susceptibility	GLVIA 3 defines as “the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.”
Landscape value	GLVIA 3 defines as “The relative value that is attached to different landscapes by society.”
Light Goods Vehicle	A vehicle that is used to transport goods and materials and has a gross combination mass of less than 3,500 kg.
Likely Significant Effects	It is a requirement of Environmental Impact Assessment Regulations to determine the likely significant effects of a proposed development on the environment which should relate to the level of an effect and the type of effect.
Local Wildlife Sites	Non-statutory designations conferred by local planning authorities and given weight through local planning policy. These sites are selected through a selection of criteria (criteria are area dependent) aimed at identifying “substantive nature conservation value”.

² Landscape Institute and IEMA (2013). Guidelines for Landscape and Visual Impact Assessment, Third Edition.

Term	Definition
Magnitude (of change)	A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short term or long term in duration'. Also known as the 'degree' or 'nature' of change.
Main River	Usually larger rivers and streams, designated as such by the Environment Agency. The Environment Agency is responsible for maintenance, improvement and/or construction work on main rivers to manage flood risk.
Mitigation Measures	Actions proposed to avoid, prevent, reduce and where possible offset significant adverse environmental effects arising from the whole or specific elements of a development. Specific environmental measures relevant to the technical aspects have been identified and have been considered as part of the assessments.
National Cycle Network	A UK-wide network of signed paths and routes for walking, wheeling, cycling and exploring outdoors.
National Electricity Transmission System	The system consisting (wholly or mainly) of high voltage electric lines owned or operated by transmission licensees within Great Britain.
National Energy System Operator	National Energy System Operator, which is an independent company that ensures Great Britain's energy supply meets demand. Formerly National Grid Electricity System Operator (NGESO)
National Fire Chiefs Council	The NFCC is a UK organization that provides fire safety guidance, including for grid-scale Battery Energy Storage Systems. They provide guidance on fire prevention, emergency response, site layout, ventilation, and monitoring to reduce fire risks in large-scale BESS.
National Grid Electricity System Operator Limited	NGESO was the system operator for the national electricity system in Great Britain between 1 April 2019 and 1 October 2024, replaced by NESO.
National Grid Electricity Transmission	National Grid Electricity transmission is responsible for owning and maintaining the high voltage electricity network in England and Wales.
National Road Traffic Forecast	Forecasts produced by the DfT to predict further traffic growth.

Term	Definition
Nationally Significant Infrastructure Project	Major infrastructure development in England and Wales which are consented by DCO.
Non-Designated Heritage Assets	As defined in Planning Practice Guidance: Historic Environment, 2019 (Paragraph: 039, Reference ID: 18a-039-20190723, Revision date: 23 07 2019).
Non-host landscapes	Geographic areas of land which do not cover the Order Limits.
Objectives (Air Quality)	A nationally defined set of health-based concentrations for nine pollutants, seven of which are incorporated in Regulations, setting out the extent to which the standards should be achieved by a defined date. There are also vegetation-based objectives for sulphur dioxide and nitrogen oxides.
One Earth Solar Farm Ltd	One Earth Solar Farm Ltd is the joint venture of Padero Solaer Ltd (trading as PS Renewables) and Ørsted Onshore UK Ltd.
Order Limits	The maximum extent of land required temporarily and / or permanently for the construction, operation and decommissioning of the Proposed Development.
Ordinary Watercourse	Any watercourse that is not defined as a Main River. Works proposed within or near Ordinary Watercourses require consent from the Lead Local Flood Authority or Internal Drainage Board.
Ordnance Survey	The national mapping agency for Great Britain. Excludes Northern Ireland.
Outline Battery Safety Management Plan	Provides an outline from which a detailed Battery Safety Management Plan will be developed to mitigate any safety risks with battery energy storage systems.
Outline Construction Environmental Management Plan	Provides an outline from which a detailed Construction Environmental Management Plan will be developed to avoid, minimise or mitigate any construction effects on the environment.
Outline Decommissioning Environmental Management Plan	Provides an outline from which a detailed Decommissioning Environmental Management Plan will be developed to ensure that appropriate environmental management practices are followed during the decommissioning phase of a project.

Term	Definition
Outline Design Parameters	Qualitative or quantitative standards that will be secured for each work area via the Outline Design Parameters [EN010159/APP/5.9]
Outline Operational Environmental Management Plan	Provides an outline from which a detailed Operational Environmental Management Plan will be developed to ensure that appropriate environmental management practices are followed during the operational phase of a project.
Particulate matter	Microscopic portions of solid matter suspended in air. PM10 -microscopic particles with an aerodynamic diameter of 10 microns or less. PM2.5 - microscopic particles with an aerodynamic diameter of 2.5 microns or less.
Peak particle velocity	A measure of the magnitude of vibration, representing the greatest instantaneous particle velocity in a given time period. Measured in mm/s.
Personal Injury Accident	A recorded accident that results in damage or injury and that is collated by the Police in the UK.
Photomontage	An image which overlays the Proposed Development onto an existing photograph so as to aid in understanding how the Proposed Development may be perceived. The process is undertaken in a verifiable way, so as to ensure the accuracy of the Proposed Development within the photograph.
Pitch	Distance between the front of one row to the front of one row behind. For example, the ground width + spacing between rows.
Planning Inspectorate	Deals with planning appeals, national infrastructure planning applications, examinations of local plans and other planning-related and specialist casework in England and Wales.
Power Conversion System	Container often including the transformer, inverter, switchgear, cabling. Converts DC power to AC power for connection to surrounding electrical network.
Pre-application Land and Rights Negotiations Tracker	This tracker identifies the powers sought over plots of land by reference to the colours shown on the Land Plans. This is broken down by land interest.

Term	Definition
Preliminary Environmental Information Report (PEIR)	The report setting out the preliminary Environmental Impact Assessment of the Proposed Development for the purposes of consultation.
Proposed Development	The development for which a Development Consent Order is sought and which is described in Schedule 1 to the Draft DCO [EN010159/APP/3.1] (described in the DCO as the “authorised development”) and in more detail in ES Volume 1, Chapter 5: Description of the Proposed Development [EN010159/APP/6.5]
Ramsar site	Areas designated by the UK Government under the International Ramsar Convention (the Convention on Wetlands of International Importance) 1971.
Rating level, $L_{A,T,r}$	The specific sound level plus any adjustment for the characteristic features of the sound.
Residual Effects	Those effects of a development that cannot be mitigated following implementation of mitigation proposals.
Return Period	An average time or an estimated average time between events.
Rochdale Envelope	The Rochdale Envelope is a recognised approach where aspects of the project design are not fully resolved however can be accommodated within maximum parameters and limits. This allows for the application to assess the reasonable worst-case scenario.
Scheduled Monument	An ancient monument or archaeological deposits designated by the Secretary of State as a ‘Scheduled Ancient Monument’ and protected under the Ancient Monuments and Archaeological Areas Act 1979.
Scoping Opinion	The opinion adopted by the Secretary of State for the Proposed Development on 22 December 2023
Scoping Report	The report submitted to the Secretary of State on 13 th November 2023 by the Applicant in support of a request for a scoping opinion in connection with the Proposed Development.
Sensitivity	A term applied to specific receptors, combining judgements of the susceptibility of the receptor or feature to the specific type of change or development proposed and the value related to that receptor or feature.

Term	Definition
Setting	The setting of a heritage asset is defined in NPS EN-1 as <i>'The setting of a heritage asset is the surroundings in which it 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 and may affect the ability to appreciate that significance or may be neutral...'</i> (footnote 231).
Significance	A measure of the importance of the environmental effect, defined by criteria specific to the environmental aspect.
Significant effect	It is a requirement of the EIA Regulations to determine the likely significant effects of a development on the environment which should relate to the level of an effect and the type of effect. Where possible significant effects should be mitigated. The significance of an effect gives an indication as to the degree of importance (based on the magnitude of the effect and the sensitivity of the receptor) that should be attached to the impact described.
Site	The extent of the development site as defined by the Order Limits.
Site of Special Scientific Interest (SSSI)	A site statutorily designated at the national level under the Wildlife and Countryside Act 1981 (as amended) They are a series of sites that are designated to protect the best examples of significant natural habitats and populations of species.
Solar Array	Multiple solar tables.
Solar Module	A singular solar panel.
Solar PV	Solar photovoltaic.
Solar Table	Multiple solar modules connected together.

Term	Definition
Source Protection Zones	Zones which show the level of risk to a source of water from contamination. An Inner zone (SPZ 1) is defined as a zone with a 50 day travel time of pollutant to source (50 meters default minimum radius). An Outer zone (SPZ 2) is defined as a zone with a 400 day travel time of pollutant to source (250m or 500m minimum radius around the source depending on the amount of water taken). A Total catchment (SPZ 3) is the area around a supply source within which all the groundwater ends up at the abstraction point.
Special Area of Conservation	International designation implemented under the Habitats Regulations for the protection of habitats and (non-bird) species. Sites designated to protect habitats and species on Annexes I and II of the Habitats Directive. Sufficient habitat to maintain favourable conservation status of the particular feature in each member state needs to be identified and designated.
Special Category Land Plans	The Special Category Land Plans identify any special category land within the project.
Special Protection Area	Sites designated under the Birds Directive (EU Directive (79/409/EEC) transposed by The Wildlife and Countryside Act 1981 (as amended)) to protect habitats of migratory birds and certain threatened birds.
Specific sound level, $L_s = L_{Aeq,Tr}$	The A-weighted equivalent continuous sound pressure level produced by the specific sound source at the reference location over a reference time interval, T.
Standardised Admission Ratio	A statistical measure to compare the hospital admission rate in a specific population to a standard population. In this chapter, England is used as the standard population and has a Standardised Admission Ratio of 100, indicating that the observed number of admissions is exactly what would be expected based on the standard population. A ratio greater than 100 suggests that the observed rate in the study population is higher than expected, while a ratio less than 100 suggests lower rates than expected.

Term	Definition
Standardised Incidence Ratio	A statistical measure used to determine if the occurrence of cancer in a relatively small population is high or low to compare the incidence rate in a standard population. England has a Standardised Incidence Ratio of 100, indicating that the observed incidence of cancer is exactly what would be expected based on the standard population. A ratio greater than 100 suggests that the observed rate in the study population is higher than expected, while a ratio less than 100 suggests lower rates than expected.
Standardised Mortality Ratio	A statistical measure to compare the mortality rate in a specific population to a standard population. England has a Standardised Mortality Ratio of 100, indicating that the observed number of deaths is exactly what would be expected based on the standard population. A ratio greater than 100 suggests that the observed rate in the study population is higher than expected, while a ratio less than 100 suggests lower rates than expected.
Standards (Air Quality)	A nationally defined set of concentrations for nine pollutants below which health effects do not occur or are minimal.
Statement of Reasons	The Statement of Reasons outlines the justification for the compulsory acquisition of land. It explains why the land is needed for the proposed development, how the acquisition aligns with legal requirements, and how it serves the public interest. The document also addresses considerations related to human rights, ensuring that the acquisition process respects the rights of affected parties.
Study area	Defined area surrounding the scheme in which data is collected and analysed in order to set the site into its environmental context. As further explained in specific technical aspect chapters.
Substation	Substations combine multiple feeds from the solar or BESS PCS and step up the voltage level. For example, a 33/400kV substation takes multiple 33kV feeds and combines them together then steps them up to 400kV.
Summer Views	Viewpoint photography taken when deciduous vegetation is in leaf, such that the extent of visibility may be reduced due to trees on leaves and bushes.
Surface Runoff	Peak rate of runoff for a specific return period due to rainfall falling on a given area of vegetated land.

Term	Definition
Switchgear	Switchgear is an integral part of an electric power system. It includes fuses, switches, relays, isolators, circuit breaker, potential and current transformer, indicating device, lightning arresters, etc. that protects electrical hardware from faulty conditions.
Temporal scope	The temporal scope covers the time period over which changes to the environment and the resultant effects are predicted to occur and are typically defined as either being temporary or permanent.
Temporary or permanent effects	Effects may be considered as temporary or permanent. In the case of solar energy development, the application is for a 60 year period after which the assessment assumes that decommissioning will occur and that the site will be restored. For these reasons the development is referred to as long term and reversible.
Trackout	Movement of mud and soil out of the site by construction vehicles.
Transformers	Transformers control the voltage of the electricity generated across the site before it reaches the electrical infrastructure.
Viewpoint	Representative and typical views experienced by visual receptors obtained from publicly accessible locations.
Visual Receptor	GLVIA3 as <i>“individuals and/or defined groups of people who have the potential to be affected by a proposal”</i> .
Visual Sensitivity	GLVIA defines sensitivity as: <i>“A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor.”</i>
Visual Susceptibility	The occupation or activity of people experiencing the view at particular locations and the extent to which their attention or interest may therefore be focussed on the views and the visual amenity they experience at particular locations.
Visual Value	Value attached by society to a view, e.g. via planning designations, mapping, guidebooks or references in art.
West BESS Site	BESS Site to the west of the River Trent.

Term	Definition
Wider determinants of health	Biological, behavioural, socio-economic, cultural or environmental factors which contribute to the health status of individuals or populations.
Winter Views	viewpoint photography taken when deciduous vegetation is not in leaf, such that the extent of visibility is at its most within the year.
Zone of Influence	The area surrounding a proposed development which could result in likely significant effects.
Zone of Theoretical Visibility	GLVIA defines as “A map, usually digitally produced, showing areas of land within which a development is theoretically visible.”

2. Abbreviations

Acronym	Definition
AAC	Areas of Archaeological Constraint
AADT	Annual Average Daily Traffic
AAWT	Annual Average Weekday Traffic
AC	Alternating Current
ACM	Asbestos Containing Material
ACoW	Archaeological Clerk of Works
ADMS-Roads	Atmospheric Dispersion Modelling System model for Roads
ADS	Archaeological Data Service
AEP	Annual Exceedance Probability
AGL	Above ground level
AHAH	Access to Healthy Assets & Hazards
AIL	Abnormal Indivisible Load
ALC	Agricultural Land Classification
AMCT	Annual Mean Concentration Target
AMS	Arboricultural Method Statement
AOD	Above Ordnance Datum
APFP	Applications: Prescribed Forms and Procedure
AQAL	Air Quality Assessment Level
AQC	Air Quality Consultants Ltd
AQMA	Air Quality Management Area
ATC	Automatic Traffic Count
ATI	Ancient Tree Inventory
AURN	Automatic Urban and Rural Network

Acronym	Definition
BCA	Bilateral Connection Agreement
BCT	Bat Conservation Trust
BDC	Bassetlaw District Council
BESS	Battery Energy Storage System
BGL	Below ground level
BGS	British Geological Survey
BMS	Battery Management System
BMV	Best and most versatile
BNG	Biodiversity Net Gain
BNL	Basic Noise Level
BoCC	Birds of Conservation Concern
BoP	Balance of Plant
BPM	Best Practicable Means
BRAG	Black, Red, Amber, Green Assessment Methodology
BRES	Business Register and Employment Survey
BS	British Standards
BS EN	British Standards European Norm
BTO	British Trust for Ornithology
CA	Conservation Area
CASE	Culture and Sport Evidence
CBC	Common Bird Census
CCC	Climate Change Committee

Acronym	Definition
CCGT	Combined Cycle Gas Turbine
CCR	Climate Change Resilience
CCS	Carbon Capture and Storage
CCS	Considerate Constructors Scheme
CCTV	Closed-Circuit Television
CDM	Construction (Design & Management) Regulations
CdTe	Cadmium telleride
CEBR	Centre for Economics and Business Research
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CEMP	Construction Environmental Management Plan
CEZ	Construction Exclusion Zone
CfD	Contracts for Difference
CFD	Computational Fluid Dynamics
CH ₄	Methane
CIEEM	Chartered Institute of Ecology and Environmental Management
CIFA	Chartered Institute of Archaeologists
CIGS	Copper Indium Gallium Selenide
CIRIA	Construction Industry Research and Information Association
CL:AIRE	Contaminated Land: Applications in Real Environments
CLOCS	Construction Logistics and Community Safety
CNP	Critical National Priority
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent

Acronym	Definition
CoCP	Code of Construction Practice
COSHH	Control of Substances Hazardous to Health
CRT	Canals & River Trust
CSM	Conceptual site model
CTMP	Construction Traffic Management Plan
CUSC	Connection and Use of System Code
DAD	Design Approach Document
DAS	Discretionary Advice Service
DBA	Desk Based Assessment
DC	Direct Current
DCO	Development Consent Order
DECC	Department of Energy & Climate Change
DEFRA	Department of Food, Fisheries and Rural Affairs
DEMP	Decommissioning Environmental Management Plan
DESNZ	Department for Energy Security and Net Zero
DfT	Department for Transport
DHA	Designated Heritage Asset
DLUHC	Department for Levelling Up, Housing and Communities
DMP	Dust Management Plan
DMRB	Design Manual for Roads and Bridges
DNO	Distribution Network Operator
DNV	Det Norske Veritas
DRA	Design Risk Assessment
DTMP	Decommissioning Traffic Management Plan

Acronym	Definition
EA	Environment Agency
EclA	Ecological Impact Assessment
EcoCoW	Ecological Clerk of Works
ECow	Environmental Clerk of Works
EFT	Emission Factor Toolkit
EHA	English Heritage Archive
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EMFs	Electric and magnetic fields
EMS	Energy Management System
EN	European Norm
EPS	European Protected Species
EPUK	Environmental Protection UK
ERP	Emergency Response Plan
ERP	Emergency Response Plan
ES	Environmental Statement
ESS	Energy Storage System
E-Stop	Emergency Stop
EU	European Union
EV	Electric Vehicle
FACP	Fire Alarm Control Panel
FAT	Factory Acceptance Testing
FES	Future Energy Scenarios
FRA	Flood Risk Assessment
FRAP	Flood Risk Activity Permit

Acronym	Definition
FRS	Fire and Rescue Service
FTE	Full Time Equivalent
GHG	Greenhouse Gases
GLNP	Greater Lincolnshire Nature Partnership
GLVIA3	Guidelines for Landscape and Visual Impact Assessment, Third Edition
GPP	Guidance for Pollution Prevention
GSP	Grid Supply Point
GVA	Gross Value Added
GWh	Gigawatt hour
GWP	Global Warming Potential
ha	Hectares
HAR	Hydrogen Allocation Round
HAZID	Hazard Identification Study
HCA	Homes and Communities Agency
HDD	Horizontal Directional Drilling
HDV	Heavy Duty Vehicles (>3.5 tonnes)
HE	Historic England
HER	Historic Environment Record
HFCs	Hydrofluorocarbons
HGV	Heavy Goods Vehicle
HIS	Habitat Suitability Index
HLC	Historic Landscape Characterization
HMA	Hazard Mitigation Analysis
HMI	Human Machine Interface

Acronym	Definition
HMSO	His Majesty's Stationery Office
HPI	Habitat of Principal Importance
HRA	Habitat Regulations Assessment
HV	High voltage
HVAC	Heating, Ventilation and Air Conditioning
IAQM	Institute of Air Quality Management
IBC	Intermediate Bulk Containers
ICCI	In-Combination Climate Change Impact
ICNIRP	International Commission on Non-Ionizing Radiation Protection
IDB	Internal Drainage Board
IEC	International Electrotechnical Commission
IEMA	Institute of Environmental Management and Assessment
ILP	Institute of Lighting Professionals
IMD	Indices of Multiple Deprivation
INNS	Invasive non-native species
IPCC	Intergovernmental Panel on Climate Change
IR	Infrared
IRENA	International Renewable Energy Agency
IRZs	Impact Risk Zones
ITP	Inspection Test Plan
IUCN	International Union for Conservation of Nature
JAQU	Joint Air Quality Unit
JNCC	Joint Nature Conservation Committee
km	Kilometres
kph	Kilometres Per hour

Acronym	Definition
kWh	Kilowatt hour
LAQM	Local Air Quality Management
LB	Listed Building
LBAP	Local Biodiversity Action Plan
LCA	Landscape Character Area
LCC	Lincolnshire County Council
LCOE	Levelised Cost of Energy
LCoW	Landscape Clerk of Works
LDV	Light Duty Vehicles (<3.5 tonnes)
LEMP	Landscape and Ecology Management Plan
LFP	Lithium Iron Phosphate
LGP	Low ground pressure
LGV	Light Goods Vehicle
LiDAR	Light Detection and Ranging (an aerial flown survey of the ground)
Li-Ion	Lithium-Ion
LLB	Locally Listed Building
LLB	Locally Listed Building
LLFA	Lead Local Flood Authority
LNR	Local Nature Reserve
LOAEL	Lowest Observed Adverse Effect Level
LPA	Local Planning Authority
LPS	Loss Prevention Standard
LSOA	Lower-layer Super Output Area
LT	Landscape Type
LULUCF	Land Use, Land-use Change and Forestry

Acronym	Definition
LVCA	Local Village Character Area
LVIA	Landscape and visual impact assessment
LWS	Local Wildlife Site
LWT	Lincolnshire Wildlife Trust
m	Metre
Magic	Multi-Agency Geographic Information Centre
MCS	Microgeneration Certification Scheme
MHCLG	Ministry of Housing, Communities and Local Government
MMP	Materials Management Plan
MSA	Minerals Safeguarding Assessment
MSDS	Material Safety Data Sheets
MTCO ₂ e	Megatonne of carbon dioxide equivalent
MVPT	Medium Voltage Power Transformer
MW	Megawatt
MWh	Megawatt hour
NBGRC	Nottinghamshire Biological and Geological Records Centre
NCC	Nottinghamshire County Council
NCN	National Cycle Network
NCR	National Cycle Network Route
NDC	Nationally Determined Contributions
NDHA	Non-Designated Heritage Asset
NE	Natural England
NERC	Natural Environment and Rural Communities
NESO	National Energy System Operator
NETS	National Electricity Transmission System

Acronym	Definition
NF ₃	Nitrogen Trifluoride
NFCC	National Fire Chiefs Council
NFPA	National Fire Protection Agency
NG	National Grid
NGCC	Natural Gas Combined Cycle
NGESO	National Grid Electricity System Operator Limited
NGET	National Grid Electricity Transmission
NHLE	National Heritage List for England
NIC	National Infrastructure Commission
NJUG	National Joint Utilities Group
NMU	Non-motorised user
NNR	National Nature Reserve
NO	Nitric oxide
NO ₂	Nitrogen dioxide
NOA	Network Options Assessment
NOEL	No Observed Effect Level
NO _x	Nitrogen oxides (taken to be NO ₂ + NO)
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NRMM	Non-road Mobile Machinery
NRTF	National Road Traffic Forecast
NSDC	Newark and Sherwood District Council
NSIP	Nationally Significant Infrastructure Project
NSR	Noise Sensitive Receptors
NTS	Non-Technical Summary

Acronym	Definition
NVC	National Vegetation Classification
NZS	Net Zero Strategy
oBSMP	Outline Battery Safety Management Plan
oCEMP	Outline Construction Environmental Management Plan
oCTMP	Outline Construction Traffic Management Plan
oDEMP	Outline Decommissioning Environmental Management Plan
oDPS	Outline Design Principles Statement
OEM	Original Equipment Manufacturer
OEMP	Operational Environmental Management Plan
OEP	Office for Environmental Protection
OHID	Office for Health Improvement and Disparities
OLEMP	Outline Landscape and Ecology Management Plan
OLEV	Office for Low Emission Vehicles
ONR	Office for Nuclear Regulation
oOEMP	Outline Operational Environmental Management Plan
oOTMP	Outline Operation and Maintenance Traffic Management Plan
oPRoW MP	Outline Public Rights of Way Management Plan
OS	Ordnance Survey
oSMP	Outline Soil Management Plan
OSSCEMP	Outline Skills, Supply Chain and Employment Management Plan
oSTP	Outline Staff Travel Plan
oSWMP	Outline Site Waste Management Plan
OWSI	Overarching Written Statement of Investigation
PA 2008	Planning Act 2008

Acronym	Definition
PAS	Portable Antiquity Scheme
PCS	Power Conversion System
PEIR	Preliminary Environmental Information Report
PERT	Population Exposure Reduction Target
PHAST	Process Hazards Analysis Software Tool
PIA	Personal Injury Accident
PID	Passive Infrared Detector
PINS	Planning Inspectorate
PIR	Passive Infra-Red
PM ₁₀	Small airborne particles, more specifically particulate matter less than 10 micrometres in aerodynamic diameter.
PM _{2.5}	Small airborne particles less than 2.5 micrometres in aerodynamic diameter.
PP	Protective Provisions
PPE	Personal Protective Equipment
PPG	Planning Practice Guidance
PPG	Pollution Prevention Guidance
ppSPA	Prospective Potential Special Protection Area
PRA	Preliminary Risk Assessment
PRoW	Public Right of Way
PRoW MP	Public Right of Way Management Plan
pSAC	Possible Species Area of Conservation
pSPA	Potential Special Protection Area
PTW	Permit To Work
PV	Photovoltaic
PZ	Policy Zone

Acronym	Definition
RACIM	Responsible, Accountable, Consulted, Informed and Monitor
RAMS	Risk Assessment Method Statement
RCP	Representative Concentration Pathway
REPD	Renewable Energy Planning Database
RICS	Royal Institution of Chartered Surveyors
RPA	Root Protection Area
RPG	Registered Park and Garden
RRO	Regulatory Reform Order
SAC	Special Area of Conservation
SAR	Standardised Admission Ratio
SAT	Site Acceptance Testing
SAT	Single Access Tracker
SF6	Sulphur Hexafluoride
SFRA	Strategic Flood Risk Assessment
SM	Scheduled Monument
SMART	Specific, Measurable, Attainable, Realistic and Timely
SMP	Soil Management Plan
SMR	Standardised Mortality Ratio
SMR	Small Modular Reactor
SMTT	Society of Motor Manufacturers
SOAEL	Significant Observed Adverse Effect Level
SoC	State of Charge
SoCG	Statement of Common Ground
SOE	Significance of Effect

Acronym	Definition
SoH	State of Health
SP	Settlement Period
SPA	Special Protection Area
SPD	Supplementary Planning Document
SPG	Supplementary Planning Guidance
SPI	Species of Principal Importance
SPZ	Source Protection Zone
SQEP	Suitably Qualified and Experienced Persons
SRN	Strategic Road Network
SSR	Site Selection Report
SSSI	Site of Special Scientific Interest
STP	Staff Travel Plan
SuDS	Sustainable Drainage Systems
SWMP	Site Waste Management Plan
T&D	Transmission and Distribution
TCO _{2e}	Tonne of carbon dioxide equivalent
TCPA	Town and Country Planning Act
TEC	Transmission Entry Capacity
ToUTS	Time of Use Tariffs
TPP	Tree Protection Plan
TSO	Transmission System Operator
TTM	Temporary Traffic Management
UAEL	Unacceptable Adverse Effect Level
UK	United Kingdom

Acronym	Definition
UKCP18	UK Climate Projections 2018
UL	Underwriters Laboratories
UNFCCC	United Nations Framework Convention on Climate Change
UPG	Unregistered Park and Garden
VESDA	Very Early Smoke Detection by Aspiration
WCA	Wildlife and Countryside Act
WFD	Water Framework Directive
WHIASU	Wales Health Impact Assessment Support Unit
WLDC	West Lindsey District Council
WMO	World Meteorological Organisation
WMP	Water Management Plan
WSI	Written Scheme of Investigation
ZEV	Zero Emission Vehicle
ZoI	Zone of Influence
ZTV	Zone of Theoretical Visibility
µg/m ³	Microgrammes per cubic metre



one earth
solar farm