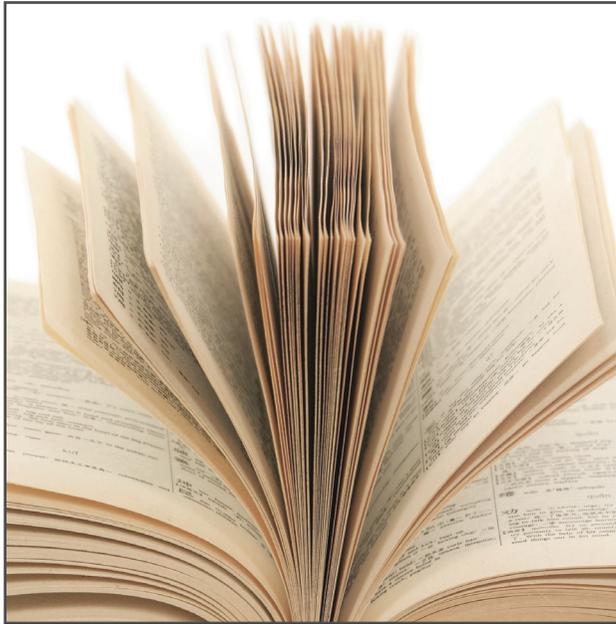


CHAPTER 18 - GLOSSARY AND ACRONYMS

Introduction	385
Acronyms	385
Glossary	387



INTRODUCTION

18.1 This chapter provides a list of common abbreviations and terms used in relation to the environmental assessments undertaken for the proposed development.

Acronyms

AC	Alternating Current	CLVIA	Cumulative Landscape and Visual Impact Assessment
AGLV	Areas of Great Landscape Value	CoP	Conference of the Parties
ALC	Agricultural Land Classification	CROW	Countryside and Rights of Way
AOD	Above Ordnance Datum	CWS	County Wildlife Site
AODN	Above Ordnance Datum Newlyn	DBA	Desk Based Assessment
AONB	Area of Outstanding Natural Beauty	DBEIS	Department for Business Energy and Industrial Strategy
ASMW	Ancient Semi Natural Woodland	DC	Direct Current
ATC	Automatic Traffic Count	DECC	Department of Energy and Climate Change
BAP	Biodiversity Action Plan	DEFRA	Department for Environment, Food and Rural Affairs
BGL	Below Ground Level	DfT	Department of Transport
BGS	British Geological Survey	DMRB	Design Manual for Roads and Bridges
BOAT	Byway Open to All Traffic	DNO	Distribution Network Operator
BOCC	Birds of Conservation Concern	DPD	Development Plan Document
BRE	Building Research Establishment	DTM	Digital Terrain Model
BTO	British Trust for Ornithology	EIA	Environmental Impact Assessment
CBC	Common Bird Census	EOAC	European Ornithological Atlas Committee
CCC	Climate Change Committee	EPS	European Protected Species
CDA	Critical Drainage Area	ES	Environmental Statement
CIEEM	Chartered Institute of Ecology and Environmental Management	ETSU	Energy Technology Support Unit

FRA	Flood Risk Assessment	MHCLG	Ministry of Housing, Communities and Local Government	S.F.	Significant Figures
GLVIA	Guidelines for LVIA	MW	Mega Watt	SIA	Simple Index Approach
GRP	Glass Reinforced Plastic	MWp	Mega Watt Peak	SMR	Sites and Monuments Record
HER	Historical Environmental Records	NBN	National Biodiversity Network	SNH	Scottish Natural Heritage
HSI	Habitat Suitability Index	NCR	National Cycle Route	SPA	Special Protection Area
HMSO	Her Majesty's Stationery Office	NERC	Natural Environment Research Council	SPL	Sound Power Level
HLC	Historic Landscape Characteristics	NHLE	National Heritage List for England	SSSI	Site of Special Scientific Interest
IEMA	Institute of Environmental Management and Assessment	NMR	National Monuments Record	STA	Solar Trade Association
IPCC	International Panel on Climate Change	NPPF	National Planning Policy Framework	SuDS Manual	Sustainable Drainage Systems Manual
IRZ	Impact Risk Zone	NPPG	National Planning Practice Guidance	SWDS	Surface Water Drainage Strategy
JNCC	Joint Nature Conservation Committee	NPS	National Policy Statement	SWMP	Site Waste Management Plan
kW	Kilo Watt	NPSE	Noise Policy Statement for England	UNESCO	United Nations Educational Scientific and Cultural Organization
kWp	Kilo Watt Peak	NTS	Non Technical Summary	UNFCCC	United Nations Framework Convention on Climate Change
LCT	Landscape Character Types	ODPM	Office of the Deputy Prime Minister	UWS	Unconfirmed Wildlife Sites
LDF	Local Development Framework	PEA	Preliminary Ecological Appraisal	VP	View/Vantage Point
LDN	Local Distribution Network	PRoW	Public Right of Way	WSI	Written Scheme of Investigation
LLFA	Lead Local Flood Authority	PV	Photovoltaic	ZTV	Zone of Theoretical Visibility
LPA	Local Planning Authority	Ramsar	Convention signed in Iran.		
LVIA	Landscape and Visual Impact Assessment	RPG	Registered Parks and Garden		
MAGIC	Multi-Agency Geographical Information for the Countryside	SAC	Special Area of Conservation		
		SAM	Scheduled Ancient Monument		
		SAPs	Species Action Plans		

Glossary

Term	Definition
Additional Cumulative Effects	Predicted incremental changes to the landscape and visual baseline as a result of a proposed development(s) in the context of operational, and/or permitted developments.
Ancient Woodlands	These are woodlands that have existed since at least the seventeenth century. They are of biodiversity importance due to their longevity, often giving rise to high species diversity.
Anthropogenic Effect	An effect that is derived from human activities.
Aquifer	An aquifer is an underground layer of water-bearing permeable rock or unconsolidated materials (gravel, sand, silt, or clay).
Aspect Area	In LANDMAP each spatial layer is divided up into discrete geographical units (polygons in GIS) referred to as aspect areas. Each aspect area is distinctly defined by its unique landscape characteristics and qualities.
Baseflow	Baseflow is the portion of streamflow that comes from groundwater and not runoff.
Baseline Conditions	The existing (pre-proposed development) environmental conditions against which any future changes can be measured or predicted.
Biodiversity	The number and variety of organisms found within a specified geographic region.
Biodiversity Action Plan	<p>Biodiversity Action Plans (BAPs) stem from the Convention on Biological Diversity, also known as the 'Earth Summit' (1992), which called for the creation and enforcement of national strategies and action plans to conserve, protect and enhance biological diversity.</p> <p>The BAP system in the UK comprises both Habitat Action Plans (HAPs) and Species Action Plans (SAPs). Species and habitats are chosen according to a number of criteria, including threatened status, decline in range/area and endemism. Biodiversity action planning has been applied at both a national and local (LBAP) level. That a BAP has been prepared should simply reflect the fact that the habitat or species concerned is in a sub-optimal state (and hence that action is required).</p>

Term	Definition
Birds of Conservation Concern	<p>The BTO (2002) lists Birds of Conservation Concern (BoCC), which fall into three categories:</p> <ul style="list-style-type: none"> •Red list (species of high concern); •Amber list (species of medium concern); and •Green list (species of lower concern). <p>Species are placed on these lists based, among other criteria, on the percentage decline of breeding or wintering populations in the recent past.</p>
Conservation Area	<p>An area of special architectural or historic interest, in which a local authority must pay special attention to the desirability of preserving or enhancing its character or appearance.</p>
Constraints Map	<p>Map showing the location of important resources and receptors that may form constraints to development.</p>
Combined Cumulative Effects	<p>Predicted changes to the landscape and visual baseline as a result of two or more proposed developments, where the effects are the result of more than one of the proposed developments. Effects that arise as a result of one of the proposed developments only would not be cumulative.</p>
Cumulative Landscape and Visual Impact Assessment (CLVIA)	<p>An assessment of likely significant cumulative effects on landscape and visual amenity arising as a result of a development(s) in the context of existing, permitted and/or other proposed developments, undertaken in accordance with the GLVIA and other emerging guidance on CLVIA.</p>
Cumulative Landscape Effects	<p>There is the potential for cumulative landscape effects where two or more developments would result in:</p> <ul style="list-style-type: none"> Changes to the physical fabric of the landscape; Changes to landscape character; and Changes to the character and integrity of designated landscapes.

Term	Definition
Cumulative Visual Effects	<p>There is the potential for cumulative visual effects where two or more developments would be visible:</p> <p style="padding-left: 40px;">In the same sector of the view at a viewpoint location, i.e. with both developments within a field of view of up to 90 degrees, which would enable an observer to see both developments without moving their head (simultaneous visibility);</p> <p style="padding-left: 40px;">In different sectors of the view at a viewpoint location, i.e. with the developments > 90 degrees apart, so that an observer has to move their head in order to see both developments (successive visibility); and</p> <p style="padding-left: 40px;">One at a time at a series of locations along a linear route (sequential visibility).</p>
dB(A)	<p>A measure of the loudness of a sound, given in decibels above the threshold of hearing (i.e. 0dB(A) is the quietest sound heard by the human ear).</p>
Digital Terrain Model (DTM)	<p>A three dimensional map of the landform of a study area, using digital height data, such as the OS Terrain 50 data (with height data at 50m centres) or OS Terrain 10 data (with height data at 10m intervals). Each height datum provides an easting, a northing and an elevation in mAOD.</p>
Effects	<p>Predicted changes in the environmental baseline as a result of the proposed development. Effects can be direct or indirect, secondary, cumulative, short, medium or long-term, permanent or temporary, positive (beneficial), negative (adverse) or a change that cannot be defined as beneficial or adverse.</p>
Electrical Distribution Network	<p>The electricity distribution system owned by the Distribution Network Operator (such as WPD) which incorporates both overhead and underground cables. These connect individual properties and areas to the regional grid at a variety of power levels including 11kV, 33kV and 132kV. The regional grid is distinct from the national grid, which runs at 275kV and 400kV.</p>
Electromagnetic Interference (EMI)	<p>Interference with, or the disturbance of, telecommunication systems, including VHF (very high frequency), UHF (ultra high frequency) and microwave systems.</p>

Term	Definition
El Niño	El Niño is an oscillation of the ocean-atmosphere system in the tropical Pacific having important consequences for weather around the globe. El Niño is characterized by unusually warm ocean temperatures in the Equatorial Pacific.
La Niña	Global climate La Niña impacts tend to be opposite those of El Niño impacts. La Niña is characterized by unusually cold ocean temperatures in the Equatorial Pacific.
Environmental Impact	A change, brought about in the existing environment, which results in an effect, adverse, beneficial, or both. Within this context the environment may include the population, fauna, flora, soil, water, air, climatic factors, material assets including the architectural and archaeological heritage, and landscape.
Environmental Impact Assessment (EIA)	In this context, the process by which the likely significant environmental impacts of a development are identified and evaluated, and by which mitigation measures and residual impacts are proposed. This process is undertaken in accordance with the EIA Regulations 1999 (amended).
Environmental (landscape and visual) baseline	The existing (pre-proposed development) landscape and visual context of a study area, including landscape fabric, landscape character and existing views.
Environmental Statement (ES)	The environmental information provided in association with a planning application that describes the environmental baseline, methodology and findings of the EIA undertaken on the proposals.
Field Pattern	The pattern of hedges, walls, ditches, etc. that define fields in farmed landscapes. (LI/IEMA 2002).
Gigatonne (Gt)	Thousand million tonnes.
Hydrogeology	The study of sub-surface groundwater movement.
Hydrology	The prediction of rainfall and rain water flow rates.
Indirect Impacts	Impacts on the environment, which are not a direct result of the development but are often produced away from it or as a result of a complex pathway. Sometimes referred to as secondary impacts. (LI/IEMA 2002).
Intervisibility	Two points on the ground or two features are described as 'intervisible' when they are visible from each other.
Kilowatt (kW)	A unit of power, equivalent to one thousand Watts.
Kilowatt-hour (kWh)	A Measurement of active energy defined as the amount of energy a Kilowatt source produces in one hour. The kWh is a standard unit of electrical consumption, as metered and shown on electricity bills.
Landcover	The combination of land use and vegetation that cover the land surface.

Term	Definition
Landscape	<p>Landscape results from the way that different aspects of our environment (physical, social, aesthetic and perceptual) interact together and are perceived by us:</p> <ul style="list-style-type: none"> •Physical elements – e.g. geology, landform, soils, flora and fauna; •Social elements – e.g. land use, enclosure patterns, and the patterns, form and scale of settlements and other built development; •Aesthetic factors – e.g. colour, form, visual texture and pattern, sounds, smells and touch; and •Perceptual factors – e.g. memories, associations, stimuli and preferences.
Landscape and Visual Impact Assessment (LVIA)	<p>An assessment of likely significant effects on landscape and visual amenity arising as a result of a development(s), undertaken in accordance with the GLVIA.</p>
Landscape Character	<p>Landscape character arises from a distinct, recognisable and consistent pattern of physical and social elements, aesthetic factors and perceptual aspects in the landscape.</p>
Landscape Character Areas (LCAs)	<p>Single unique areas that are discrete geographical areas containing one or more landscape types.</p>
Landscape Character Types (LCTs)	<p>Generic units of landscape that display a distinct, consistent and recognisable landscape character.</p>
Landscape Elements	<p>Physical components (natural and manmade) of the landscape.</p>
Landscape Fabric	<p>Elements and features that constitute the physical components of the landscape, including ground vegetation, hedgerows, trees, shrubs, walls, fences, and vernacular structures.</p>
Landscape Features	<p>A prominent eye-catching element, eg a wooded hilltop.</p>
Landscape Quality	<p>Is based on judgements about the physical state of the landscape and about its intactness, from visual, functional and ecological perspectives. It also reflects the state of repair of individual features and elements which make up the character in any one place.</p>
Landscape Resource	<p>The combination of elements that contribute to landscape context, fabric, character and value.</p>
Landscape Units	<p>An umbrella term for LCAs and LCTs.</p>
Landscape Sensitivity	<p>The extent to which a landscape can accept change of a particular type and scale without unacceptable adverse effects on its character.</p>

Term	Definition
Landscape Value	The relative value or importance attached to a landscape, which is often the basis for designation or recognition. A landscape may be valued for many reasons, which could include landscape quality, scenic quality, tranquillity, wilderness value, consensus about its importance whether nationally or locally and other conservation interests and cultural associations.
Listed Building	A building listed by English Heritage as being of significant historical or architectural interest.
Megawatt (MW)	A unit of power, equivalent to one million Watts.
Megawatt-hour (MWh)	A Measurement of active energy defined as the amount of energy a megawatt source produces in one hour.
Mitigation Measure	Measures, including any process, activity or design that will avoid, reduce, remedy or compensate for the predicted significant effects of a development on the environmental baseline.
Natural Areas	Natural Areas have been formally defined as 'biogeographic zones which reflect the geological foundation, the natural systems and processes and the wildlife in different parts of England, and provide a framework for setting objectives for nature conservation' (Biodiversity: The UK Steering Group Report, HMSO, 1995).
Overbearing (with regard to landscape assessments)	Where one or more proposed wind turbines would be so close and of such a size as to be likely to make the observer uncomfortable and want to move further away.
Overwhelming	Where a proposed development would dominate a view, e.g. the main views from a property, to the extent that the development would be oppressive. This depends on the scale, number and relative elevation of the turbines in the view, the array width and the proportion of the overall view(s) that the turbines will occupy.
Phase 1 Habitat Survey	A Method of ecological surveying recommended by the Joint Nature Conservancy Council. This method usually produces a map showing the habitat structure of a site with habitats classified according to standard notation.
Photomontage	Computer-generated 3D image of a development(s) accurately located and overlaid onto the panoramic photograph of an existing view to illustrate the location and scale of a proposed development in the context of its setting. A photomontage does not illustrate movement and so may not, therefore, illustrate the full effects of a development on a view.

Term	Definition
Public Access	<p style="text-align: center;">Land with public access includes:</p> <p>Access land – areas of mountain, moor, heath, down, common land and coastal foreshore that have been designated under Section 2 of the Countryside and Rights of Way Act 2000 (CRoW Act). The right of access is for walkers only and does not extend to camping, cycling, horse riding or driving a vehicle, nor does the right of access apply to developed land, gardens or cultivated land. Under the CRoW Act, there was a process of consultation that allowed the right of appeal for those with a legal interest in the land, and for sensitive ecological and archaeological sites to be excluded. Conclusive maps showing the areas designated as open access land (Registered Common Land and Open Country) are now available from Natural England and the Countryside Council for Wales. Accessible land can also be identified from the Countryside Agency and CCW websites and the Ordnance Survey Explorer (1:25 000) maps. Some areas of access land, such as urban commons, already have higher rights of access, e.g. horse riding, under earlier enactments and, under s15 of the CRoW Act, the existing rights of access apply.</p> <p style="text-align: center;">Definitive rights of way – public footpaths, bridleways, cycle routes, byways open to all traffic (BOATS) and highways. Shown on Definitive Rights of Way maps held by the Local Authority. Most routes are also shown on Ordnance Survey maps.</p>

Term	Definition
Public Access (continued)	<p>Permissive paths and bridleways – routes where there is public access with the permission of the landowner. Such routes are usually closed at least one day a year to prevent the establishment of a public right of way.</p> <p>Public open space – areas designated for specified public uses, usually in the ownership of the Local Authority. Includes parks and recreation grounds. Shown on Local Development Plans.</p> <p>Beaches – the public have permitted access to much of the foreshore (intertidal zone - between high and low tide marks) owned by the Crown Estate (about 50% of the UK coastline), and on land above high water mark owned by the Local Authority. Some beaches above high tide mark are privately owned and some beaches and foreshore have restricted access for military purposes.</p> <p>Permissive access land - land where public access is currently permitted with the permission of landowners. Includes land outlined in purple on the OS Explorer (1:25,000) sheets and with:</p> <ul style="list-style-type: none"> No symbol – land open to public with permission of owners. White oak leaf in purple box – National Trust, always open. Purple oak leaf in white box – National Trust limited access. Tree symbols in purple box – Forestry Commission. Single leaf in purple box – Woodland Trust. White 'AL' in purple box – other access land. <p>De facto access land – land where there is no definitive or permissive right of way but where the public do actually have access with the knowledge and tolerance (but not legal permission) of the landowner. This includes land in the ownership of the Local Authority and private landowners and is generally not shown on Ordnance Survey maps.</p>
Receptor	A population, fauna, flora, soil, water, air, climatic factors, material assets with the potential to be impacted by the proposal.
Red Data Book Species	The Red Data Book (RDB) system applies standard criteria to define the national conservation status of animal and plant species according to the following categories: Extinct (EX), critically endangered (CR), endangered (EN), vulnerable (VU), near-threatened (NT) and lower concern (LC).
Scoping Report	A document issued to the local authority and statutory consultees by a developer, that includes indicative information necessary for the formulation of a Scoping Opinion.

Term	Definition
Sector of a View	The horizontal field of view that can be scanned by the human eyes without moving the head. The human eyes can comfortably scan and focus across a horizontal field of view of about 45 degrees but, taking peripheral vision into account, this can be extended to around 90 degrees. Therefore, for the purposes of this assessment, a sector of a view is taken to be 90 degrees.
Transect	A path along which one records and counts occurrences of the phenomenon of study.
Vantage Point Survey	A bird survey methodology as detailed in SNH, 2005.
Viewing Distance	The distance that a viewpoint illustration should be held from the eye in order for the illustration to match the scale of the actual view when used in the field to identify the location and scale of the proposed development(s).
Visual Amenity	<p>Arises from a visual receptor's experience of the visual world around them and the value they place on particular views.</p> <p>Theoretically, it is possible for a development(s) to result in a significant change in the view from a particular location without resulting in a significant effect on visual amenity, if the location is not accessible to receptors or the view is acknowledged as having limited value.</p>
Visual Receptor(s)	An individual observer or group of observers who are capable of experiencing a change in the view.
Visualisation	A computer-generated wireframe, photomontage or other technique used to illustrate the location, scale and/or appearance of a proposed development(s). (See definitions for wireframes and photomontages and also later in this appendix for more details).
Wireframe	A computer generated view of the terrain and proposed development from a specified viewpoint location. As with ZTVs (see below), wireframes are usually based on the bare-ground DTM only and do not show movement or the screening effects of surface features.
Zone of Theoretical Visibility (ZTV)	<p>A computer generated intervisibility map showing the zones within which a proposed development may be visible.</p> <p>Most ZTVs for wind farms are based on bare-ground digital terrain models (DTMs) and use the wind turbine hubs or blade tips in the upright position as the targets, so do not take into account the screening effects of surface features (e.g. walls, trees, buildings, etc.) and, whilst they indicate the number of turbines (hubs or tips) that may be visible, usually do not illustrate how much of each turbine may be visible.</p> <p>Cumulative ZTVs for wind farms are ZTVs as above, but show the zones where one or more wind turbines (hubs or tips) from two or more wind farms under consideration may be visible.</p>

