

Hornsea Offshore Wind Farm

Project Two

Environmental Statement
Volume 1 – Introductory Chapters

Glossary

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smartwind.co.uk

SMart Wind Limited

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Project Two – Environmental Statement**

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1 GLOSSARY

Term	Definition
Appropriate Assessment (AA)	An assessment to determine the implications of a plan or project on a European site in view of the site's conservation objectives. An AA forms part of the Habitats Regulations Assessment and is required when a plan or project is likely to have a significant effect on a European site.
Bathymetry	The measurement of water depth in oceans, seas and lakes.
Benthic ecology	Benthic ecology encompasses the study of the organisms living in and on the sea floor, the interactions between them and impacts on the surrounding environment.
Cumulative effects	The combined effect of the assessed project in combination with the effects from a number of different projects, on the same single receptor/resource.
Cumulative impacts	Impacts that result from changes caused by other past, present or reasonably foreseeable actions together with the project.
Design envelope	A description of the range of possible elements which make up the project design options under consideration, as set out in detail in Chapter 3: Project Description. This envelope is used to define the project for Environmental Impact Assessment (EIA) purposes when the exact engineering parameters are not yet known. This is also often referred to as the "Rochdale Envelope".
Designated site	An area afforded protection under an International Convention, European Directive or a piece of UK legislation due to its nature conservation or landscape value.
Development Consent Order (DCO)	A legal order granting development consent for one or more nationally significant infrastructure projects.
Edge Weighted Layout	A type of wind turbine layout where the spacing at all or some of the boundary of the wind farm is less than the spacing between some or all of the inter-array turbines.
Effect	Term used to express the consequence of an impact. The significance of effect is determined by correlating the magnitude of the impact with the importance, or sensitivity, of the receptor or resource in accordance with defined significance criteria.
EIA Directive	Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment.

Term	Definition
Environmental Impact Assessment (EIA)	A statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. Involves the collection and consideration of environmental information, which fulfils the assessment requirements of the EIA Directive, including the publication of an Environmental Statement.
Environmental Impact Assessment (EIA) Regulations	A collective name for the various statutory instruments through which the EIA Directive has been implemented in the UK and in the context of this document, the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended).
Environmental Statement	A document reporting the findings of the EIA and produced in accordance with the EIA Directive as transposed into UK law by the EIA Regulations.
European site	A Special Area of Conservation (SAC) or candidate SAC, a Special Protection Area (SPA) or potential SPA, a site listed as a site of community importance or a Ramsar site.
European Marine Site	A European site consisting of marine areas.
Far-field	A considerable distance from the source (contrast to near-field).
Habitats Regulations	The Conservation of Habitats and Species Regulations 2010 (as amended) which applies to land in the UK and to marine habitats up to 12 NM offshore.
Habitats Regulations Assessment (HRA)	A process which helps determine likely significant effects and (where appropriate) assesses adverse impacts on the integrity of European sites and Ramsar sites. The process consists of up to four stages: screening, appropriate assessment, assessment of alternative solutions and assessment of imperative reasons of over-riding public interest (IROPI).
Impact	Change that is caused by an action; for example, land clearing (action) during construction which results in habitat loss (impact).
Indirect impacts	Impacts on the subject of study arising from a complex route, where the connection between the scheme and impact is complicated, unpredictable or remote.
Interconnection with National Grid Substation	The connection from the onshore HVDC converter/HVAC substation to the Killingholme National Grid substation. This will allow the electrical power generated by the offshore wind farm to be transferred to Great Britain's National Grid for distribution throughout the country.
Inter-related effects	Multiple effects on the same receptor arising from Project Two. These occur either where a series of the same effect acts on a receptor over time to produce a potential additive effect or where a number of separate effects, such as noise and habitat loss, affect a single receptor, for example marine mammals.

Term	Definition
Jack-up barge	A type of mobile platform that is able to stand still on the sea floor, resting on a number of supporting legs.
Magnitude	A combination of the extent, duration, frequency and reversibility of an impact.
Mattress (concrete)	Pre-cast concrete slabs that are laid alongside each other on the seabed over a pipeline or cable to protect it from damage and sometimes to allow another pipeline or cable to be laid over it where they need to cross each other.
Met mast	A mast or tower structure on which meteorological observation and recording equipment is mounted.
Mitigation	Measures (which may include process or design) intended to avoid, reduce and where possible, remedy significant adverse impacts of a development.
National Policy Statement (NPS)	A document setting out national policy against which proposals for major infrastructure projects will be assessed and decided on.
Nationally Significant Infrastructure Project (NSIP)	Large scale development including power generating stations which requires development consent under the Planning Act 2008. An offshore wind farm project with a capacity of more than 100 megawatts (MW) constitutes an NSIP.
Near-field	Close proximity to the source (contrast to far-field).
Offshore cable route corridor	This term applies to the offshore cable route corridor (seaward of mean high water) from Subzone 2 to the landfall at Horseshoe Point. It consists of a corridor of seabed and is approximately 150 km in length. Within the corridor there will be up to eight cable circuits, each buried within its own trench.
Offshore Habitats Regulations	The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) which applies to marine habitats extending beyond 12 NM.
Offshore footprint of Project Two	The area of Subzone 2 together with the offshore cable route corridor from Subzone 2 to the landfall.
Onshore cable route corridor	This term applies to the onshore cable route corridor (landward of the mean low water) from the landfall at Horseshoe Point to the grid connection point at North Killingholme. The cable route corridor is approximately 40 km in length and comprises a permanent land take area, approximately 20 m (up to 30 m) in width, which will contain the cable circuits. Contiguous to the permanent area, there will be an area of temporary land take for construction and working, which, including the permanent land take will extend to a total of approximately 40 m, plus additional works compounds and side accesses.

Term	Definition
Onshore HVDC converter/HVAC substation	Depending on what transmission option is chosen, an HVAC substation or an HVDC converter station consisting of a building (or buildings) at one end of the site abutting an open yard, possibly partitioned with concrete or steel walls or fences containing switchgear, electrical reactors and other electrical equipment.
Piling	Process of driving a foundation into the seabed by pushing, hammering or vibrating the pile.
Planning Inspectorate (PINS)	The executive agency of the Department for Communities and Local Government responsible for operating the planning process for NSIPs.
Project One	The first offshore wind farm project within the Hornsea Round 3 Zone. It has a maximum capacity of 1.2 gigawatts (GW) or 1,200 MW and includes all necessary offshore and onshore infrastructure required to connect to the existing National Grid substation located at North Killingholme, North Lincolnshire.
Project Two	The second offshore wind farm project within the Hornsea Round 3 Zone. It has a maximum capacity of 1.8 GW (1,800 MW) and includes offshore and onshore infrastructure to connect to the existing National Grid substation located at North Killingholme, North Lincolnshire.
Ramsar Convention	The Convention on Wetlands of International Importance especially as Waterfowl Habitat which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.
Ramsar Site	Wetlands of international importance, designated under the Ramsar Convention.
Round 3	A large scale round of licensing for offshore wind projects launched by the Crown Estate. The Crown Estate selected 9 zones likely to be suitable for offshore wind farms. These zones were then offered to offshore wind developers to investigate in more detail, search for potential offshore wind farm locations, and design those projects.
Scour	Erosion of sediment around the subsea foundations of offshore wind turbines and other offshore infrastructure created by tidal currents.
Scour protection	Protection against erosion of the seabed which can take a variety of forms, including rock dumping, gravel, frond mattresses, concrete 'mattresses', bags filled with gravel, grout or other concrete.
Sensitivity	The extent to which a study subject can accept a change of a particular type and scale without unacceptable adverse effects.
Significance	The significance of an effect combines the evaluation of the magnitude of an impact and the sensitivity of the receptor.
Subzone 1	The area within the Hornsea Zone where the Project One wind turbines will be sited.

Term	Definition
Subzone 2	The area within the Hornsea Zone where the Project Two wind turbines will be sited.
The Crown Estate (TCE)	The Crown Estate is a property business encompassing urban, rural and marine estates. The Crown Estate owns virtually the entire sea bed out to the 12 NM territorial limit, including the rights to explore and utilise the natural resources of the UK continental shelf (excluding oil, gas and coal). More recently the Energy Act 2004 vested rights to The Crown Estate to licence the generation of renewable energy on the continental shelf within the Renewable Energy Zone out to 200 NM. The surplus revenue from the Estate is paid each year to HM Treasury.
Transboundary	Crossing into other European Economic Association (EEA) States.
Zone	The area of the seabed demarcated by TCE for wind farm development in Round 3 and, in the context of this document, the Hornsea Zone.
Zone Appraisal	An appraisal of the generation capacity of the Zone by looking at consenting (with a focus on environment constraints and Zone stakeholder consultation), construction, operation and connection and determining the associated optimised Zone layout for wind farms through a process of data collation and interrogation.
Zone Appraisal Methodology (ZAM)	A document which describes the methods to be used to assess potential impacts across the Zone. These are implemented within the ZEA.
Zone Appraisal and Planning (ZAP)	A framework intended to rationalise and balance the commercial aim of maximising development capacity aspirations with the practicalities of deliverability.
Zone Characterisation (ZoC)	A broad description of the physical, biological, socio-economic and cultural heritage characteristics of the Zone at a resolution sufficient to support Zone layout and subsequent project identification. This will not necessarily take the form of a tangible output, but reflects the increase in understanding of the Zone over time.
Zone Development Agreement (ZDA)	A contractual arrangement for Round 3 wind farm development between a developer and TCE and, in the context of this document, the Agreement between TCE and SMart Wind Limited dated 22 December 2009.
Zone Development Envelope (ZDE)	The area comprising all development associated with the Zone including: the Round 3 Zone (as defined by TCE), onshore grid connection corridors and infrastructure and offshore cable corridors.
Zone Environmental Appraisal (ZEA)	A report which presents the environmental results from the Zone Appraisal. This incorporates information from the ZoC, implements the methodologies set out in the ZAM, and describes potential cumulative and in-combination effects across the Hornsea Zone.