



Transboundary screening undertaken by the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) for the purposes of Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 EIA Regulations)	
Project name:	Outer Dowsing Offshore Wind (Generating Station)
Address/Location:	An offshore wind farm array located in the southern North Sea, 54km from the Lincolnshire Coast, England. Offshore transmission infrastructure extending to a landfall location on the Lincolnshire coastline between Saltfleetby All Saints in the north and Chapel St Leonards in the south. A grid connection point and onshore cable connection route, currently proposed in a broad 'Area of Search' (AoS) between Mablethorpe and Weston Marsh in Lincolnshire.
Planning Inspectorate Ref:	EN010130
Date(s) screening undertaken:	First screening – 01 February 2023, following the Applicant's request for a Scoping Opinion.

FIRST TRANSBOUNDARY SCREENING	
Document(s) used for transboundary Screening:	Outer Dowsing Offshore Wind Scoping Report July 2022 ('the Scoping Report'), including Appendix A: Transboundary Screening Matrix
Screening Criteria:	
Characteristics of the Development	<p>The Proposed Development is for an offshore wind farm generating station of up to 1GW, together with associated transmission infrastructure.</p> <p>Offshore</p> <p>The Proposed Development would occupy an area of 500km² of seabed. The Scoping Report states that this area will be reduced to an area of up to 300km² prior to consent. The key offshore components include the following:</p> <ul style="list-style-type: none"> • Up to 100 wind turbines (maximum blade tip height of 403m above Lowest Astronomical Tide (LAT) and maximum rotor diameter of 340m); • Up to 7 offshore platforms, which may include an offshore converter substation and offshore High Voltage Alternating Current (HVAC) booster substation (depending on the transmission system); • Offshore platform supporting accommodation facilities for operation and maintenance; • A Reactive Compensation Station (RCS) (if required);

- Subsea array cables;
- Offshore interconnector cables;
- Up to six subsea export cables using either HVAC or High Voltage Direct Current (HVDC) technology to connect the turbines to the substations and to connect the substations to the onshore transition pits at the landfall; and
- Cable protection.

The foundation design for offshore structures has yet to be finalised but options under consideration include: monopile; suction bucket; gravity base systems (GBS); pin piled jacket; suction bucket jacket; and GBS jacket. Scour protection including rock and gravel dumping is being considered.

Seabed preparation may be required to install the foundations, inter-array cabling and export cables. This may involve seabed dredging, levelling, and the removal of sandwaves and/or boulders. Cabling would be buried, but where this is not possible, cable protection would be required and trenching used during installation.

Onshore

The wind farm array will be connected to the National Grid Electricity Transmission System (NGET) onshore by the export cables. The export cable landfall is currently expected to be located along the Lincolnshire coastline in England, between Saltfleetby All Saints in the north and Chapel St Leonards in the south.

The export cables would cross intertidal areas at the landfall site, either using trenchless techniques (for example Horizontal Directional Drilling) or by open-cut trenching techniques.

The onshore infrastructure include:

- Up to 6 onshore export cables buried in trenches, either directly or in a cable duct;
- One RCS (if required); and
- One onshore substation.

The location for the grid connection point and onshore substation has not yet been determined. Two locations are however indicated for the grid connection point: the 'Lincolnshire Node', to the north of the search area; and Weston Marsh, to the south of the search area.

Duration

The Scoping Report indicates a 3-year construction programme commencing in 2027, with the wind farm proposed to be operational in 2030. The Scoping Report does not indicate the lifetime of the Proposed Development but states that at the end of its operational lifetime, turbine structures above the seabed would be removed and most cabling would remain in situ.

<p>Location of Development (including existing use) and Geographical area</p>	<p>The offshore components of the Proposed Development would be located in the southern North Sea. The windfarm array area would be located approximately 54km off the Lincolnshire coast, England. The offshore transmission infrastructure would extend in a west-south-west direction to the landfall area along the Lincolnshire coast (exact location to be determined). The onshore elements of the Proposed Development would be wholly within the county of Lincolnshire, England.</p> <p>The Scoping Report identifies a number of existing uses within the offshore AoS (which includes the array area and export cable corridor), including:</p> <ul style="list-style-type: none"> • existing or proposed infrastructure, including existing windfarms, subsea cables, pipelines, oil and gas infrastructure; and aggregate dredging areas; • shipping routes; • commercial fishing activity; and • recreational activities associated with the coastline. <p>The onshore AoS is largely rural and predominantly comprises intensively farmed agricultural land, with more urban development at the coast including the settlements of Mablethorpe, Sutton-on-Sea and Sandilands.</p> <p>Distance to European Economic Area (EEA) States</p> <p>The windfarm array area is located beyond 12-nautical miles (nm) from the UK land but is wholly within the UK Exclusive Economic Zone (EEZ) waters. Appendix A of the Scoping Report states that the nearest EEZ of EEA States are:</p> <ul style="list-style-type: none"> • The Netherlands 95km; • Belgium 196km; • France 225km; • Germany 263km; • Denmark 277km; and • Norway 292km.
<p>Environmental Importance</p>	<p>Offshore</p> <p>Appendix A of the Scoping Report identifies that transboundary impacts are unlikely to arise and can be screened out for the following environmental aspects:</p> <ul style="list-style-type: none"> • Marine processes; • Marine water quality; • Benthic, subtidal and intertidal ecology; • Fish and shellfish ecology; • Marine archaeology; • Seascape, landscape and visual; • Aviation elements of aviation, radar, military and communication; and • Marine infrastructure and other users. <p>Potential for transboundary impacts is identified in the following environmental aspects:</p> <ul style="list-style-type: none"> • Marine mammals;

- Offshore and intertidal ornithology;
- Commercial fisheries;
- Shipping and navigation; and
- Aviation, radar, military and communication.

These are expanded on below.

Marine mammals

The following species have been identified in the AoS and/or could be potentially affected by the Proposed Development:

- Harbour porpoise (*Phocoena phocoena*);
- White-beaked dolphin (*Lagenorhynchus albirostris*);
- Bottlenose dolphin (*Tursiops tursiops*);
- Minke whale (*Balenoptera acutrostrata*);
- Grey seal (*Halichoerus grypus*); and
- Harbour seal (*Phoca vitulina*).

Harbour seal and common seal are also identified as qualifying features of The Wash and North Norfolk Coast Special Area of Conservation (SAC) within the AoS.

Offshore and intertidal ornithology

Common seabirds known to be present in or around Proposed Development and AoS include (but are not limited to): kittiwake (*Rissa tridactyla*); razorbill (*Alca torda*); guillemot (*Uria aalge*); gannet (*Morus bassanus*); and red throated diver (*Gavia stellata*).

The Scoping Report identifies the potential for connectivity between the offshore AoS and European sites with ornithological qualifying features.

The following UK European sites are identified in the Scoping Report as either within or close to the AoS for the Proposed Development:

- The Greater Wash SPA (within the offshore AoS);
- The Flamborough and Filey Coast Special Protection Area (SPA) (95km north-west of the array area);
- The Wash SPA (58km west of the array area and overlaps the offshore AoS); and
- Humber Estuary SPA (58km west of the array area and overlaps the offshore AoS).

It confirms that the relevant European sites will be identified in a Habitats Regulations Assessment (HRA) Report (yet to be produced).

Commercial fisheries

The fish and shellfish chapter of the Scoping Report confirms that common fish species identified within the Scoping AoS include (but are not limited to): whiting (*Merlangius merlangus*); dab (*Limanda limanda*); plaice (*Pleuronectes platessa*); solenette (*Buglossidium luteum*); and grey gurnard (*Eutrigla gurnardus*), as well as commercial species including sprat (*Sprattus sprattus*), herring (*Clupea harengus*), plaice (*Pleuronectes platessa*), mackerel (*Scomber scombrus*), and

lemon sole (*Microstomus kitt*). Brown crab (*Cancer pagurus*), European lobster (*Homarus ammarus*), whelk (*Buccinum undatum*), brown shrimp (*Crangon crangon*), pink shrimp (*Pandalus sp*) and Norway lobster (*Nephrops norvegicus*) have also been identified.

The Proposed Development has the potential to affect commercial fishing fleets from EEA States that operate within the AoS, including those from France, Denmark, Belgium and the Netherlands, which the Scoping Report states operate to a limited extent in the area. The Scoping Report also identifies the potential for impacts on the commercial fish stocks in the water of EEA States. Potential impacts are considered due to the highly mobile nature of both commercial fish species and fishing fleets and the relative proximity of the array area to the EEZ of EEA States.

Shipping and navigation

The Proposed Development has the potential to affect shipping routes which transit to/ from other EEA countries, including the potential effects of shipping routes to/from the Netherlands, Denmark, Sweden, Iceland and Germany. Transboundary issues could also arise from impacts upon international ports, other international shipping routes and/or routes affected by other international offshore renewable energy developments. Shipping traffic identified in the scoping study area included cargo vessels, tankers and oil and gas vessels.

Aviation, radar, military and communication

The Proposed Development is entirely within the UK Flight Information Region and so effects on aviation are not anticipated. There are some oil and gas platforms within the vicinity of the Proposed Development that are located in the Dutch EEZ; however, these platforms are serviced from the Netherlands (ie from the east) and therefore no transboundary effects are predicted in relation to disruption to transit routes to the set platforms and use of available airspace. The Scoping Report does however also state that the potential for transboundary impacts to arise from the presence of the wind turbines during the operation and maintenance phase, as a result of the presence of the offshore infrastructure associated with the Proposed Development, cannot be determined at this stage. Further assessment is therefore proposed, including obtaining further data for the Dutch sector.

Onshore

No potential receptors of environmental importance have been identified in the onshore environment that could result in transboundary impacts. Onshore receptors and impacts are therefore not discussed further in this screening.

Potential impacts and Carrier

Marine Mammals

The Scoping Report acknowledges the potential for transboundary impacts upon marine mammals due to the mobile nature of marine mammal species and the proximity of the Proposed Development to the EEZ of EEA States.

Potential impacts are identified as:

- Direct impacts due to underwater noise from the piling and installation of foundations generated during construction and decommissioning;
- Indirect impacts from disturbance to prey (fish) species from loss of fish spawning and nursery habitat and suspended sediments and deposition; and
- Operational noise from turbines.

Intertidal and Offshore Ornithology

Potential impacts up to Mean High Water Springs are identified due to the wide foraging and migratory nature of offshore birds, including:

- Direct mortality due to collisions with rotating turbine blades during operation;
- Barrier effects due to the physical presence of structures preventing transit of birds between foraging and breeding sites, or on migration;
- Direct impacts to ornithological receptors due to temporary habitat loss/disturbance (displacement) across all development phases of the Proposed Development;
- Permanent habitat loss during the operation and maintenance phase due to displacement; and
- Disturbance to prey (fish) species from important bird feeding areas or changes to prey availability due to changes to physical processes and habitat as a result of the presence of operational infrastructure.

Commercial Fisheries

Potential impacts on commercial fisheries are identified in the Scoping Report as:

- Effects on commercial fishing fleets as a result of impacts on commercial fish stocks in the waters of EEA States;
- Effects on commercial fishing fleets from all EEA countries as a result of constraints on foreign commercial fishing activities operating around the Proposed Development, including demersal trawling, beam trawling, demersal seining and other gears (operation); and
- Reduction in access to fishing grounds and potential displacement of fishing effort to alternative fishing grounds in EEA States;

	<p>Shipping and Navigation</p> <p>Potential impacts on shipping and navigation are identified in the Scoping Report as:</p> <ul style="list-style-type: none"> • Impacts upon shipping routes which transit to/from EEA States (construction, operation and decommissioning); and • Impacts upon international ports, other international shipping routes and/or routes affected by international offshore renewable energy developments (construction, operation and decommissioning). <p>Aviation, Radar, Military and Communication</p> <p>Potential impacts on aviation, radar, military and communication are identified in the Scoping Report as:</p> <ul style="list-style-type: none"> • Potential disturbance to commercial helicopters transiting to oil and gas installations in the southern North Sea from UK airports; and • Presence of wind turbines during the operation and maintenance phase.
<p>Extent</p>	<p>Marine mammals</p> <p>The extent of impacts has not been determined at this stage and will be subject to assessment in the Environmental Statement.</p> <p>Offshore and intertidal ornithology</p> <p>The extent of impacts has not yet been determined and will be subject to assessment in the ES.</p> <p>Commercial fisheries</p> <p>The extent of impacts has not yet been determined. The Scoping Report states this will be determined by the final project design and the description of final designated safety zones and thus will be considered in the ES.</p> <p>Shipping and navigation</p> <p>The extent of potential transboundary impacts has not yet been determined. However, the Scoping Report indicates a high potential for transboundary effects during operation and potential for effects during construction and decommissioning. Further assessment is therefore proposed for all phases of the Proposed Development.</p> <p>Aviation, Radar, Military and Communication</p> <p>The Scoping Report confirms that the extent of the potential for transboundary impacts to arise from the presence of the wind turbines occurring during the operation and maintenance phase as a result of the presence of the offshore infrastructure associated with the Project cannot be determined at this stage. Further assessment is therefore proposed.</p>

Magnitude	The magnitude of impacts has not been evaluated at this stage and will be subject to further assessment.
Probability	<p>Marine Mammals</p> <p>The probability of transboundary impacts to marine mammals occurring during construction, particularly as a result of underwater noise from piling, is potentially high. Impacts associated with the operational and maintenance phases are considered less likely.</p> <p>Offshore and Intertidal Ornithology</p> <p>The Scoping Report does not conclude on the probability of transboundary impacts to ornithology. The Scoping Report identifies that the majority of impacts during the construction phase are considered likely to be short term and temporary. Potential impacts during the operation and maintenance phase are likely to be long term, continuous and of varying spatial extent depending on the species, although it is likely that they will be reversible following the decommissioning of the Project.</p> <p>Commercial Fisheries</p> <p>The Scoping Report identifies that the probability of impacts occurring during operation, particularly as a result of the presence of the offshore infrastructure associated with the Proposed Development, is likely to be high.</p> <p>Shipping and Navigation</p> <p>The Scoping Report identifies that the probability of impacts on shipping and navigation occurring during operation, particularly as a result of the presence of the offshore infrastructure associated with the Proposed Development, is likely to be high.</p> <p>Aviation, Radar, Military and Communication</p> <p>The Scoping Report does not conclude on the probability of impacts occurring during the operation and maintenance phase as a result of the presence of the offshore infrastructure associated with the Proposed Development. However, given the potential spatial extent of the impacts, it is considered likely to be high.</p>
Duration	<p>Marine Mammals</p> <p>The Scoping Report does not provide details of the duration of effects on marine mammals, but it anticipates the majority of impacts during construction are likely to be short term and temporary. Impacts associated with the operational noise of turbines are, by nature, longer term but could be reversible depending on the decommissioning strategy.</p> <p>Offshore and Intertidal Ornithology</p> <p>The Scoping Report does not provide details of the duration of effects on birds but during the construction phase, it considers impacts to be short term. Potential impacts during the</p>

	<p>operation and maintenance phase are likely to be long term, continuous and of varying spatial extent depending on the species, although it is likely that they will be reversible following the decommissioning of the Project.</p> <p>Commercial Fisheries</p> <p>The Scoping Report does not provide details of the duration of effects on commercial fisheries. However, the presence of offshore infrastructure will have the potential to be long term. The Scoping Report states that it is likely that following completion of construction that some fishing activity may be able to resume.</p> <p>Shipping and Navigation</p> <p>The Scoping Report does not provide details of the duration of effects on shipping and navigation. However, the presence of offshore infrastructure has potential to be long term, but it is likely that following completion of construction that some shipping activity may be able to resume.</p> <p>Aviation, Radar, Military and Communication</p> <p>The Scoping Report does not provide details of the duration of effects on aviation and radar. However, the presence of offshore infrastructure has potential to impact aviation and radar long term and throughout the duration of the operational phase of the Proposed Development.</p>
<p>Frequency</p>	<p>The frequency of potential transboundary effects has not been fully evaluated at this stage; however, the Scoping Report states that during operation of the Proposed Development, impacts have potential to be continuous for:</p> <ul style="list-style-type: none"> • Marine Mammals; • Offshore and Intertidal Ornithology; • Commercial Fisheries; • Shipping and Navigation; and • Aviation, Radar, Military and Communication. <p>During operation, impacts are considered to be continuous for:</p> <ul style="list-style-type: none"> • Offshore and Intertidal Ornithology; • Commercial Fisheries; • Shipping and Navigation; and • Aviation, Radar, Military and Communication. <p>Marine mammals have the potential to be affected by occasional operational activities.</p>
<p>Reversibility</p>	<p>The reversibility of potential transboundary effects has not been fully evaluated at this stage. However, the Scoping Report states the following:</p> <p>Marine Mammals</p> <p>Operation and maintenance impacts phase are likely to be temporary and reversible following the decommissioning of the Proposed Development.</p>

	<p>Offshore and Intertidal Ornithology</p> <p>Effects from impacts to ornithology during the operation and maintenance phase are likely to be reversible following decommissioning.</p> <p>Commercial Fisheries</p> <p>The effects from impacts to commercial fisheries are expected to be reversible following decommissioning, as it is anticipated that all structures above the seabed will be completely removed and fishing activity would be able to resume once decommissioning is completed.</p> <p>Shipping and Navigation</p> <p>It is likely that effects resulting from impacts to shipping and navigation would be reversible after decommissioning, as it is anticipated that all structures above the seabed will be completely removed once decommissioning is completed.</p> <p>Aviation and Radar</p> <p>It is likely that effects resulting from impacts to aviation and radar would be reversible after decommissioning, as it is anticipated that all structures above the seabed will be completely removed once decommissioning is completed.</p>
<p>Cumulative impacts</p>	<p>The Applicant's cumulative impact assessment has not yet been undertaken and the Applicant has not identified any likely significant cumulative effects at this stage. However, there is potential for cumulative effects on marine mammals and offshore ornithology with other windfarms in EEA States.</p>
<p><u>Transboundary screening undertaken by the Inspectorate on behalf of the SoS</u></p> <p>Under Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 EIA Regulations) and on the basis of the current information available from the Applicant, the Inspectorate is of the view that the Proposed Development is likely to have a significant effect on the environment in an EEA State.</p> <p>In reaching this view the Inspectorate has applied the precautionary approach (as explained in its Advice Note Twelve: Transboundary Impacts), and taken into account the information currently supplied by the Applicant.</p> <p><u>Action:</u></p> <p>Transboundary issues notification under Regulation 32 of the 2017 EIA Regulations is required.</p> <p>States to be notified:</p> <p>France, Belgium, Germany, Denmark, and Sweden - due to potential impacts on commercial fisheries and shipping and navigation.</p> <p>The Netherlands – due to potential impacts on commercial fisheries, shipping and navigation, and aviation, radar, military and communication.</p> <p>Norway – due to potential impacts on commercial fisheries.</p> <p>Iceland – due to potential impacts on shipping and navigation.</p>	

The Scoping Report has identified potential impacts on marine mammals and offshore ornithology but has not at this stage identified to which EEA states these could be associated. The Scoping Report has also not identified at this stage any European sites in EEA States that could be affected.

Date: 01 February 2023

Note: The SoS' duty under Regulation 32 of the 2017 EIA Regulations continues throughout the application process.

Note:

The Inspectorate's screening of transboundary issues is based on the relevant considerations specified in the Annex to its Advice Note Twelve, available on our website at <http://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>