



FIVE ESTUARIES OFFSHORE WIND FARM

VOLUME 6, PART 1, ANNEX 3.2: TRANSBOUNDARY SCREENING

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Project	Five Estuaries Offshore Wind Farm
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Revision	Date	Status/Reason for Issue	Originator	Checked	Approved
A	Mar-24	ES	The Planning Inspectorate	GoBe	VE OWFL



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:	Five Estuaries Offshore Wind Farm
Address/Location:	Offshore: Array located off the East coast of England, approximately 37km offshore from Suffolk. Onshore: a landfall site between Holland-on-Sea and Frinton-on-Sea on the Essex coast in the Tendring peninsula; and an onshore substation and onshore connection cable to be located within an area of search within the Tendring District Council (TDC) administrative area.
Planning Inspectorate Ref:	EN010115
Date(s) screening undertaken:	First screening – 31/05/2022 following the Applicant’s request for a scoping opinion

FIRST TRANSBOUNDARY SCREENING	
Document(s) used for transboundary Screening:	Five Estuaries Offshore Wind Farm EIA Scoping Report ('the Scoping Report'), 30 September 2021
Screening Criteria:	The Inspectorate’s Comments:
Characteristics of the Development	<p>The Proposed Development comprises both onshore and offshore infrastructure components as follows:</p> <ul style="list-style-type: none"> • Up to 79 offshore wind turbine generators, associated foundations and inter-array cabling. • Up to two offshore substation platforms. • Up to four offshore export circuits in a cable corridor, with interconnector cables between the northern and southern array areas. • A 'landfall' site using Horizontal Directional drilling or open-cut trenching techniques to bring offshore cables onshore. • Onshore cabling (up to four circuits) with cable construction width of up to 62m, comprising up to three power cables and up to four communications and earthing cables in each circuit. • An onshore substation with a maximum footprint of 50,000 m². • A series of construction compounds including up to three cable construction compounds.

	<p>The Scoping Report anticipates construction to commence in 2028 and for it to be operational in 2030.</p>
<p>Location of Development (including existing use) and Geographical area</p>	<p>Offshore</p> <p>Five Estuaries Offshore Wind Farm (OWF) is a proposed extension to the operational Galloper OWF, located in the southern North Sea, approximately 30 km off the coast of Suffolk, England. It would be operated and maintained from Harwich International Port, Essex.</p> <p>A preferred offshore export cable route has been identified. The landfall point is yet to be determined but will be located between Holland-on-Sea and Frinton-on-Sea on the Essex coast.</p> <p>The operational OWFs within 50 km of the offshore Area of Search (AoS) and array areas to be considered include:</p> <ul style="list-style-type: none"> • London Array 1 Wind Farm and Export Cable Route; • Thanet Wind Farm and Export Cable Route; • Greater Gabbard and Export Cable Routes; • Galloper and Export Cable Routes; • East Anglia One and Export Cable Route; and • Borssele (Netherlands). <p>The identified OWFs within 50 km of the offshore AoS and array areas currently in the planning and development stages include:</p> <ul style="list-style-type: none"> • North Falls and Export Cable Route; • East Anglia One North, and Two Arrays and Export Cable Routes; and • East Anglia Three Export Cable Route. <p>Paragraph 17.5.17 of the Scoping Report lists other activities and infrastructure within 50 km of the offshore AoS and array areas which includes dredging areas, interconnector power cables and telecommunication cables (indicating which are active, proposed, and disused).</p> <p>Figure 4.2 in the Scoping Report presents the location of the Proposed Development relative to the limits of the Dutch, Belgian and French Exclusive Economic Zones (EEZs). Based on this figure, the boundary of the Dutch EEZ is approximately 18km north east of the array area while the boundaries of the Belgian and French EEZs are 16km to the south east and 25km south respectively.</p> <p>Onshore</p> <p>The underground onshore export cable would run from the landfall on the Essex coastline to a convertor substation site to be located within an area of search within the administrative boundary of Tendring District Council. The area comprises a mix of land uses, including agricultural, residential, commercial, industrial and leisure.</p>

**Environmental
Importance**

Offshore

The Scoping Report identifies that:

Designated sites

Along the coast within the offshore AoS there are several sites specifically designated for geological and geomorphological features of interest, e.g. Holland on Sea Cliff Site of Special Scientific Interest (SSSI), The Naze SSSI and Clacton Cliffs & Foreshore SSSI.

The offshore project area is located within or partly within a number of designated nature conservation sites, including the Southern North Sea Special Area of Conservation (SAC), Margate and Long Sands SAC and the Outer Thames Estuary Special Protection Area (SPA).

The Essex Coastal Water Body, identified under the Water Framework Directive (WFD), is within the area of search, as well as the Frinton and Holland on Sea Bathing Waters.

Fish and shellfish

The Scoping Report states that there are a number of commercially important fish and shellfish species in the Outer Thames Estuary. The offshore project area overlaps or is in close proximity to fish spawning and nursery grounds for various species including herring, cod, whiting, sprat, sand eel, sole and plaice. Migratory fish species such as Atlantic salmon, shad and lamprey may pass through the offshore project area, and sea trout, European eel and smelt are also known to use the Thames Estuary. The wider Thames Estuary also supports sea bass and populations of elasmobranchs and is commercially important for shellfish, including crab and lobster species.

Marine mammals

Harbour porpoise are the most likely cetaceans to be present. Grey seal and harbour seal are present in the southern North Sea, with haul-out sites off the coast but densities within the offshore array areas are stated to be low.

Birds

Birds within the offshore project area identified in the Scoping Report include guillemot, razorbill, kittiwake, lesser black-backed gull, gannet, redthroated diver, great black-backed gull, herring gull, little gull, common tern, sandwich tern, fulmar, common gull, black headed gull and great skua.

Commercial shipping and navigation

The key navigational features in the area are the International Maritime Organization routing measures within and near to the array areas and offshore AoS, in particular the Sunk routing measure which includes three Traffic Separation Schemes (TSS). The Sunk TSS East is located between the

	<p>array areas and the offshore AoS passes through the Sunk Outer and Inner Precautionary Areas.</p> <p><i>Seascape and landscape</i></p> <p>The offshore areas of the Scoping Boundary are located beyond the boundaries of any areas subject to international, national or regional landscape designation intended to protect landscape quality.</p> <p><i>Marine Archaeology</i></p> <p>Immediately adjacent to the offshore project area there are palaeo landscape features and seabed deposits of palaeo environmental interest, as well as wrecks and seabed features of potential archaeological interest.</p> <p><i>Air space and radar</i></p> <p>Airspace above and adjacent to the offshore array areas is used by civil and military aircraft, including international civil aviation. It is located adjacent to the Amsterdam Flight Information Region (FIR).</p> <p><i>Infrastructure</i></p> <p>There are a number of proposed and operational interconnector and telecommunication cables that pass through the array areas (Concerto 1S, Concerto 1N, Farland and Nautilus Interconnector).</p> <p>Onshore</p> <p>National landscape designations apply to the coastline: Suffolk Coast and Heaths Area of Outstanding Natural Beauty, and the Suffolk Heritage Coast.</p> <p>The Inspectorate notes that there are a number of designated nature conservation sites within and in close proximity to the onshore area of search.</p>
<p>Potential impacts and Carrier</p>	<p>Offshore</p> <p><i>Fish and shellfish</i></p> <p>Potential impacts during construction/decommissioning include direct habitat loss, increases in underwater noise leading to auditory injury, disturbance and/or displacement at all lifecycle stages. Potential impacts during operation include the introduction of hard substrates and electromagnetic field (EMF) effects.</p> <p><i>Commercial fisheries</i></p> <p>The impacts on fish and shellfish identified above have potential to affect commercial fisheries. The Scoping Report also identifies the potential for fishing pressures to alter during operation as a result of vessel displacement from the array area and for gear snagging on underwater infrastructure.</p> <p><i>Marine mammals</i></p>

	<p>Potential impacts identified in the Scoping Report for all phases of the Proposed Development include direct habitat loss, increases in underwater noise leading to auditory injury, disturbance and/or displacement, risk of collision with vessels and changes in prey abundance. Barrier effects may also arise.</p> <p><i>Ornithology</i></p> <p>Potential impacts identified in the Scoping Report during construction and decommissioning include habitat loss, disturbance/displacement and changes in the abundance of prey species. Impacts identified in the Scoping Report for the operational phase of the Proposed Development include displacement/disturbance from the array areas, collision risk with the wind turbines and changes in prey abundance. Barrier effects may also arise.</p> <p><i>Commercial shipping and navigation</i></p> <p>Vessels could be subject to displacement from existing routes and at increased risk of collision with other vessels or structures for all phases of the development. Access to local ports could also be reduced. During operation the presence of cables and/or cable protection could reduce under-keel clearance and risk anchors interacting with subsea cables affecting vessel stability. There is also potential for the array structures to interfere with marine navigation, communication and position fixing equipment or to affect Search and Rescue operations.</p> <p><i>Seascape and landscape</i></p> <p>No impacts or carriers are identified in the Scoping Report which could affect the environment in an EEA state.</p> <p><i>Marine archaeology</i></p> <p>No impacts or carriers are identified in the Scoping Report which could affect the environment in an EEA state.</p> <p><i>Airspace and radar</i></p> <p>No impacts or carriers are identified in the Scoping Report which could affect the environment in an EEA state.</p> <p><i>Infrastructure</i></p> <p>No impacts or carriers are identified in the Scoping Report which could affect the environment in an EEA state.</p> <p>Onshore</p> <p>No impacts or carriers are identified in the Scoping Report which could affect EEA States. At this point, given the information available, the Inspectorate considers that significant transboundary effects from onshore activities associated with the Proposed Development are unlikely.</p>
Extent	<p>Offshore</p> <p><i>Designated sites</i></p>

The Scoping Report notes that the extent of potential changes to physical processes and impacts to benthic and intertidal ecology would be local.

Fish and shellfish

The Scoping Report states that distribution of fish and shellfish is independent of geographical boundaries and the assessment will be undertaken irrespective of national jurisdictions, across the wider biogeographic region.

Commercial fisheries

The Scoping Report notes that international fishing fleets – highlighting Dutch and Belgian fleets specifically but not exclusively - are known to operate in the study area. The Scoping Report also notes the presence of German, French and Danish vessels within the proposed study area for the assessments in the environmental statement.

Marine mammals

The Report states that behavioural disturbance resulting from underwater noise during construction could occur over large ranges (tens of kilometres) and therefore there is the potential for transboundary effects to occur where subsea noise could extend into waters of EEA states. In addition marine mammals are highly mobile species which could be moving between UK and EEA state waters.

The Scoping Report identifies the following European sites with marine mammal qualifying features which could be affected by the Proposed Development: Klaverbank Site of Community Importance (SCI), Dutch Doggersbank SCI and German Doggerbank SCI, Waddenzee SAC, Noordzeekustzone SAC, Noordzeekustzone II pSCI (all sites within the Netherlands with the exception of German Doggerbank SCI).

Birds

Dutch and Belgian seabird populations are specified as having the potential to be affected by the Proposed Development as a result of collision risk and displacement from sea areas. The Scoping Report considers that potential impacts relating to seabird populations from other countries are less likely due to the larger distances involved.

Commercial shipping

The Scoping Report notes that shipping vessels currently cross through the proposed windfarm site and the development could affect shipping and navigation of other EEA states. It notes that the Dutch, Belgian and French EEZs boundaries are the closest to the Proposed Development.

Seascape and landscape

The Scoping Report states that parts of the study area are located within the EEZs of Belgium, France and the Netherlands, however, no areas of land within these countries are located within or close to the study area. Consequently,

	<p>impacts are likely to be concentrated on the seascape, landscape and visual resource on the UK coastline.</p> <p><i>Marine Archaeology</i></p> <p>The Scoping Report states that impacts on known marine archaeological and cultural heritage receptors would be localised, however wrecks or aircrafts of non-British nationality could be impacted and there is the potential for paleochannels and palaeolandscapes within the North Sea to stretch beyond international boundaries. However, based on the information available it is not possible to determine the extent of these effects.</p> <p><i>Air space and radar</i></p> <p>The array areas are completely within UK airspace and the extent of potential impacts are described in the Scoping Report as localised.</p> <p><i>Infrastructure</i></p> <p>The Scoping Report states that the impacts to infrastructure are expected to be localised and therefore transboundary impacts are unlikely to occur.</p>
Magnitude	<p>The magnitude of potential transboundary effects has not been specifically identified in the Scoping Report, although in all instances it is stated that the potential effects during decommissioning are likely to be similar but smaller in magnitude than those expected during construction. A similar conclusion is reached in a number of instances for the operational phase relative to the construction phase.</p>
Probability	<p>For marine mammals, the Scoping Report states that the probability of transboundary impacts occurring during construction, particularly as a result of underwater noise from piling, is potentially high, and the operation phase is less likely to result in significant transboundary impacts.</p> <p>For other aspects, the probability of potential transboundary effects has not been specifically identified; however, based on the information presented, impacts to birds, commercial fisheries, shipping and navigation and marine archaeology are considered most likely to have potential to generate significant transboundary effects.</p>
Duration	<p>The duration of impacts is not specified within the Scoping Report submitted by the Applicant. Though some impacts are described as short or long term, or temporary, the Scoping Report does not define these terms - the indicative programme anticipates construction to commence in 2028 and the OWF be operational in 2030. The Scoping Report does not state an estimated lifespan for the Proposed Development.</p>
Frequency	<p>The frequency of the impact is not discussed in the Scoping Report but it is considered that potential effects would be</p>

	intermittent during construction and continuous during operation of the Proposed Development.
Reversibility	<p>The Scoping Report states that potential transboundary effects to the following identified receptors are likely to be reversible depending on the decommissioning strategy followed:</p> <ul style="list-style-type: none"> • Birds • Commercial fisheries • Shipping and navigation • Air space and radar (aviation) <p><i>Designated sites</i></p> <p>Effects on benthic ecology (with consequent implications for fish, bird and marine mammals) from impacts arising are likely to be reversible depending on the decommissioning strategy followed. The Inspectorate notes that it is not confirmed whether cables and foundations below the sea would be removed or left in place and therefore the potential loss of habitat and changes to seabed substrata from the presence of offshore infrastructure might not be reversible.</p> <p><i>Marine archaeology</i></p> <p>It is likely that any effects arising from impacts to marine archaeology would be irreversible and permanent.</p> <p><i>Marine mammals / fish</i></p> <p>The Scoping Report states that behavioural disturbance to marine mammals resulting from underwater noise during construction would be short term and intermittent and mammal populations would recover following completion of all piling activities. However, the Scoping Report also notes that noise from piling has the potential to cause permanent hearing damage/ auditory injury through acoustic trauma to marine mammals and fish.</p>
Cumulative impacts	<p>The Applicant's cumulative impact assessment has not yet been undertaken. The Scoping Report notes that the following key developments will be considered in the ES:</p> <ul style="list-style-type: none"> • North Falls OWF (including onshore, landfall and offshore infrastructure); • East Anglia Coastal Substation (including associated enabling works); • South and East Anglia (SEA) Link project (onshore and offshore infrastructure subject to availability of project information); • Neuconnect interconnector (offshore infrastructure only); • Nautilus Interconnector (offshore infrastructure only); and • East Anglia Two and One North OWF (offshore infrastructure only). •

Transboundary screening undertaken by the Inspectorate on behalf of the SoS

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.

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.

Action:

Transboundary issues notification under Regulation 32 of the 2017 EIA Regulations is required.

States to be notified:

The Netherlands, Belgium, Germany, Denmark and France.

Date: 31 May 2022

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/>



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