The Great Grid Upgrade

Eastern Green Link 3 (EGL 3) and Eastern Green Link 4 (EGL 4)

Preliminary Environmental Information Report (PEIR)

Volume 1, Part 3, Chapter 25 Other Marine Users May 2025

nationalgrid

EGL-WSP-CONS-XX-RP-YC-026

Contents

25.	Other Marine Users	1
25.1	Introduction Limitations Preliminary Significance Conclusions	1 2 2
25.2	Relevant Technical Guidance Technical Guidance	3 3
25.3	Consultation and Engagement Overview Scoping Opinion Technical Engagement	4 4 4 6
25.4	Data Gathering Methodology Study Area Desk Study Survey Work	8 8 9 10
25.5	Overall Baseline Current Baseline Future Baseline	10 10 23
25.6	Environmental Measures	23
25.7	Scope of the Assessment Spatial Scope and Study Area Temporal Scope Identification of Receptors Potential Effects Considered within this Assessment	25 25 25 26 26
25.8	Key Parameters for Assessment Realistic Worst-Case Design Scenario Consideration of Construction Scenarios	28 28 29
25.9	Assessment Methodology Overview Preliminary Assessment of Cumulative Effects	29 29 31
25.10	Preliminary Assessment of Interaction with Other Marine Users – Cables (power, OW Cables and Telecoms) and pipelines (from Oil and Gas and CCS Facilities) Construction Operation Decommissioning	/F 31 31 32 33
25.11	Preliminary Assessment of Interaction with Other Marine Users – MOD All Phases of the English Offshore Scheme	34 34
25.12	Preliminary Assessment of Interaction with Other Marine Users – Recreational Users	34
25.13	Preliminary Assessment of Occupancy of the Seabed by Cables (Below Seabed)	35

25.14	Preliminary Assessment of Occupancy of the Seabed by External Cable P	(
	Seabed)	35
25.15	Transboundary Effects	36
25.16	Further Work to be Undertaken	36
	Baseline	36
	Assessment	37
	Further Environmental Measures	37
	Table 25-1 - Technical Guidance Relevant to the Other Marine Users' Assessment	3
	Table 25-2 - Summary of EIA Scoping Opinion Responses for Other Marine Users	4
	Table 25-3 - Technical Engagement on Other Marine Users	6
	Table 25.4 Data Sources Used to Inform the Other Marine Users Assessment	0

	-
Table 25-4 - Data Sources Used to Inform the Other Marine Users Assessment	9
Table 25-5 - Distance from Order Limits to Existing OWFs within the Study Area	11
Table 25-6 - Distance from Draft Order Limits to Existing or Planned Power or Telecommunication	Cables
within the Study Area	13
Table 25-7 - Cable Projects that May in Future be within the Study Area	15
Table 25-8 - Distance from Draft Order Limits to Disposal Sites within the Study Area	16
Table 25-9 - Distance from Draft Order Limits to Aggregate Extraction Sites within the Study Area	16
Table 25-10 - Oil and Gas Pipeline Crossings within the Study Area	17
Table 25-11 - Oil And Gas Extant Licenced Blocks	18
Table 25-12 - MoD PEXA within the Study Area	20
Table 25-13 - Bathing Waters within the Study Area and Distance from Order Limits	22
Table 25-14 - Summary of the Environmental Measures	24
Table 25-15 - Other Marine Users Receptors Subject to Potential Effects	26
Table 25-16 - Other Marine Users Receptors Scoped in for Further Assessment	27
Table 25-17 - Summary of Effects Scoped Out of the Other Marine Users Assessment	27
Table 25-18 - Definitions of Sensitivity for Other Marine Users	29
Table 25-19 - Definitions of Impact Magnitude Criteria for Other Marine Users	30
Table 25-20 - Significance Matrix	30

Table 25-20 - Significance Matrix

25 Other Marine Users

nationalgrid

25. Other Marine Users

25.1 Introduction

- 25.1.1 This chapter presents the preliminary findings of the Environmental Impact Assessment (EIA) undertaken to date for the Eastern Green Link 3 (EGL 3) and Eastern Green Link 4 (EGL 4) English Offshore Scheme with respect to other marine users, including offshore wind farms (OWF), other power and telecommunication cables, carbon capture and storage (CCS) and natural gas storage sites, disposal sites, aggregate extraction sites, chemical weapon and munitions disposal sites, Ministry of Defence (MoD) Practice Exercise Areas (PEXA), oil and gas operations, recreational activities (note that recreational boating is also covered in Volume 1, Part 3, Chapter 23: Shipping and Navigation); and Angling – including chartered anglers (note that commercial fishing is also covered in Volume 1, Part 3, Chapter 24: Commercial Fisheries). Recreational users, such as recreational swimmers and scuba divers, have also been assessed.
- 25.1.2 The preliminary assessment is based on information obtained to date. It should be read in conjunction with the description of the Projects provided in **Volume 1, Part 1, Chapter 4: Description of the Projects.**
- 25.1.3 This chapter describes the methodology used, the datasets that have informed the preliminary assessment, baseline conditions, environmental measures, and the preliminary effects on other marine users that could result from the English Offshore Scheme during the construction and operation (and maintenance) phases. Where relevant, decommissioning has been considered at a high level in line with industry guidance and best practice. Specifically, it relates to the English offshore elements of EGL 3 and EGL 4 (the English Offshore Scheme) seaward of Mean High Water Springs (MHWS).
- 25.1.4 This chapter should be read in conjunction with:
 - Volume 1, Part 3, Chapter 23: Shipping and Navigation identifies and assesses the potential navigational impacts on other marine users, such as risk of collision and disruption
 - Volume 1, Part 3, Chapter 24: Commercial Fisheries identifies and assesses the potential impacts to commercial fishing vessels
 - Volume 1, Part 2, Chapter 15: Socio-economics, Recreation and Tourism identifies the potential impacts on recreational users
- 25.1.5 This chapter is supported by the following figures:
 - Volume 3, Part 3, Figure 25-1: Draft Order Limits and Other Marine Users Study Area
 - Volume 3, Part 3, Figure 25-2: Offshore Wind and Carbon Capture and Storage Infrastructure
 - Volume 3, Part 3, Figure 25-3: Power and Telecommunication Cables, Aggregate Extraction Sites and Disposal Sites within Study Area

- Volume 3, Part 3, Figure 25-4: Oil and Gas Infrastructure (inc pipelines) within the Study Area
- Volume 3, Part 3, Figure 25--5: Bathing Waters and Sailing Clubs in Study Area
- 25.1.6 This chapter is supported by the following appendices:
 - Volume 2, Part 1, Appendix 1.5.B: Outline Code of Construction Practice;
 - Volume 2, Part 1, Appendix 1.5.C: Outline Construction Environmental Management Plan;
 - Volume 2, Part 1, Appendix 1.2.A: Regulatory and Planning Context;
 - Volume 2, Part 1, Appendix 1.2.B: Marine Plan Assessment; and
 - Volume 2, Part 1, Appendix 1.5.A: Outline Register of Design Measures.
- 25.1.7 As set out in **Volume 1, Part 1, Chapter 1: Introduction,** cable installation and some associated activities beyond 12 nautical miles (NM) are exempt under the Marine and Coastal Access Act (MCAA) as well as repair of the installed cable. This chapter presents a preliminary assessment of the cable route from MHWS at the Anderby Creek Landfall to the border with Scottish adjacent waters. This is to provide a holistic view of the English Offshore Scheme and any associated impacts; however, consent is not being sought for the exempt cable (either installation or repair) and only cable protection and dredging for sandwave levelling will be included in the Deemed Marine Licences (dML) beyond 12 NM.

Limitations

- 25.1.8 The information provided in this Preliminary Environmental Impact Report (PEIR) is preliminary; the final assessment of potential significant effects will be reported in the Environmental Statement (ES). The PEIR has been produced to fulfil National Grid Electricity Transmission's (NGET) consultation duties in accordance with Section 42 of the Planning Act (2008) (Ref. 25.1) and enable consultees to develop an informed view of the preliminary potentially significant effects of the English Offshore Scheme.
- 25.1.9 This chapter has been produced based on a range of publicly available data and information. It is assumed that the data collated is accurate as of February 2025. The data will be supplemented with new or additional data as part of the EIA process. It is assumed that the data available from existing literature and consultation will provide an appropriate evidence base for other marine users.
- 25.1.10 In the absence of data, a precautionary approach has been taken and professional judgement applied, based on experience of similar linear schemes.
- 25.1.11 There are no limitations relating to other marine users that affect the robustness of the preliminary assessment of the potential significant effects of the English Offshore Scheme.

Preliminary Significance Conclusions

25.1.12 For other marine users, the preliminary Environmental Impact Assessment presented in **Section 25.10** has concluded that all of the potential significant effects assessed are either Negligible or Minor adverse effects and are considered to be **Not** **Significant**. Further details of the methodology behind the assessment and a detailed narrative of the assessment itself are provided within the sections below.

25.2 Relevant Technical Guidance

25.2.1 The overarching legislation and planning policy which has informed the assessment of effects with respect to other marine users is provided within Volume 2, Part 1, Appendix 1.2.A: Regulatory and Planning Context. A preliminary marine plan assessment is provided as Volume 2, Part 1, Appendix 1.2.B: Marine Plan Assessment. Relevant technical guidance, specific to other marine users, that has informed this PEIR and will inform the assessment within the ES is summarised below.

Technical Guidance

25.2.2 A summary of the technical guidance for other marine users is given in **Table 25-1**.

Technical guidance document	Context
European Subsea Cable Association (ESCA) Guideline No. 6: The Proximity of Offshore Renewable Energy Installations & Submarine Cable Infrastructure in UK waters (ESCA) (2016) (Ref. 25.2)	Provides guidance on the consideration required but all stakeholders in the development of projects requiring proximity agreements between OWF and Subsea cables projects. The Guidelines address installation and maintenance constraints related to OWF structures, associated cables and other subsea cables, where such structures and subsea cables will occupy proximate areas of seabed.
ESCA Guideline No.19. Marine Aggregate Extraction Proximity Guidelines (ESCA) (2016) (Ref. 25.3)	Provides guidance on the considerations that should be given by all stakeholders in the development of projects requiring proximity agreements between marine aggregate interests (planned applications or existing production licences) and submarine cable projects (planned or existing) in UK waters.
International Cable Protection Committee (ICPC) Recommendation No.13-2C. The Proximity of Offshore Renewable Wind Energy Installations and Submarine Cable Infrastructure in National Waters (ICPC) (2024) (Ref. 25.4)	Various guidance documents covering recommendations for working within proximity to subsea cables, including recovery of Out of Service Cables, crossing of cables and pipelines and routeing of cables.
ICPC Recommendation No.3-10C. Telecommunications Cable and Oil Pipeline/ Power Cables Crossing Criteria (ICPC) (2024) (Ref. 25.4)	Provides guidance to those who are faced with the situation of cases of crossings between telecommunications cables, power cables and pipelines.

Table 25-1 - Technical Guidance Relevant to the Other Marine Users' Assessment

Technical guidance document	Context
International Cable Protection Committee (ICPC) Recommendation No.2-12C. Recommended Routeing and Co-ordinating Criteria for Submarine Telecommunications Cables in Proximity to Other Such Cables, (ICPC) (2024) (Ref. 25.4)	Provides assistance to cable owners and those planning submarine cable systems that cross or are in close proximity to existing in-service cables. Owners of existing cables which may be crossed by a planned cable should also find assistance from this recommendation in reaching agreement on the manner of any proposed crossing or close approach by a new cable system.

25.3 Consultation and Engagement

Overview

25.3.1 The assessment has been informed by non-statutory consultation responses and ongoing stakeholder engagement. An overview of the approach to consultation is provided in **Section 5.9** of **Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology**.

Scoping Opinion

25.3.2 A Scoping Opinion was adopted by the Secretary of State, administered by the Planning Inspectorate, on 05 September 2024. A summary of the relevant responses received in the Scoping Opinion in relation to other marine users and confirmation of how these have been addressed within the assessment to date is presented in **Table 25-2**.

Table 25-2 - Summary of EIA Scoping Opinion Responses for Other Marine Users

Consultee	Consideration	How addressed in this PEIR
Planning Inspectorate	ID 5.8.1 Interaction with other seabed infrastructure - all phases Scoping Report Table 30.8 considers that interaction with existing (third party) seabed infrastructure is required to be scoped in for operation, but can be scoped out for construction. The Scoping Report does not set out the justification for scoping this matter out for construction.	The Applicant has provided a preliminary assessment for all phases within this chapter. Please refer to Sections 25.10 to 25.14 .
	The Planning Inspectorate is unclear on the justification that individual crossing agreements would mean that construction can be scoped out, as it is noted that crossing agreements are referred to for the operational phase,	

Consultee	Consideration	How addressed in this PEIR
	which is scoped in. Based on this information, the Planning Inspectorate does not agree to scope this matter out at this stage.	
Planning Inspectorate	ID 5.8.2 Receptors scoped into the assessment The Planning Inspectorate notes that a number of receptors listed in the Scoping Report Section 30.4 are not considered in Table 30.8, which appears to only consider receptors related to the seabed. In the absence of any justification for this approach, the Planning Inspectorate considers that all receptors referred to in Section 30.4 should be included in the relevant impact assessment sections, or a justification provided as to why they do not require assessment.	The preliminary assessment presented in this chapter considers all receptors, including recreational users who may interact with the English Offshore Scheme. Please refer to Sections 25.10 to 25.14 .
Planning Inspectorate	ID 5.8.3 Removal of out of service cables Scoping Report Table 20.2 refers to seeking permission to physically cut / remove redundant cables where required, however, this does not appear to be referred to in the other marine user's chapter. The ES should include an assessment of the potential impacts from physical removal of out of service cables where required, including an assessment of a scenario where permission is not given by the asset owner, resulting in the requirement for cable crossings	There is no impact pathway whereby removal of out of service cables can impact on other marine users, therefore, the impact to other marine users does not need to be considered further. An assessment of the impacts associated with the physical removal of out of service cables is presented in Volume 1, Part 3, Chapter 19: Coastal and Marine Physical Processes and Chapter 20: Intertidal and Subtidal Benthic Ecology.
Planning Inspectorate	requirement for cable crossings. ID 5.8.4 Study Area (Paragraph 30.1.2) The Scoping Report defines a 15 km buffer based on the maximum extent of increased suspended sediment concentrations. The Planning Inspectorate is unclear how this is considered relevant to this chapter, as sediment dynamics are not mentioned further and the type of receptors relevant to this chapter are unlikely to be impacted by sediment load.	The study area has been updated to incorporate a 5 NM or 9.5 km buffer around the English Offshore Scheme centrelines;10 NM (19 km) in total. The study area is defined by the potential for vessels to interact with other marine users and also the potential impact pathway from increased sediment concentrations. This is further discussed in Section 25.4 .

Consultee	Consideration	How addressed in this PEIR
	The ES should provide a justification for the study area used with reference to relevant receptors to the chapter.	
Planning Inspectorate	D 5.8.5 Methodology The Scoping Report states that the methodology will either be quantitative, e.g. physical area lost, or qualitative dependent on the receptor. Given the range of potential receptors and differing potential impacts identified, the ES should consider whether multiple definitions of sensitivity, magnitude and significance are required, as it may assist the reader where a single approach may not be suitable for all receptors.	The methodology and assessment criteria specific for other marine users are defined in Section 25.10 .

Technical Engagement

25.3.3 Technical engagement with consultees in relation to other marine users is ongoing. A summary of the technical engagement undertaken to date is outlined in **Table 25-3**.

Consultee	Consideration	How addressed in this PEIR
Environment Agency	Meeting held 28 November 2024. Requested that the entire stretch of beach is considered bathing water (not just the designated bathing waters). Requested that interaction with the beach renourishment works at the landfall at Anderby Creek is given due consideration. Monthly meetings continue with the Environment Agency.	Assessment provided in Section 25.12 .
Ossian Floating Offshore Wind Farm	Meeting held 07 August 2024, discussion around similar routes between the Projects was held, and the need emphasised for assessment of cumulative effects.	Cumulative Effects are not being considered for PEIR, however, the list of projects to be considered is presented in Volume 1, Part 4, Chapter 28: Cumulative Effects Assessment. This includes Ossian Floating Offshore Wind Farm and sets out the approach to assessment,

Table 25-3 - Technical Engagement on Other Marine Users

Consultee	Consideration	How addressed in this PEIR
		which will be considered in the ES.
Dogger Bank D Offshore Wind Farm	Meeting held 10 June 2024, Introduction to the Projects was provided, particularly in respect to cable routeing and potential for cumulative impacts to designated sites.	Cumulative Effects are not being considered for PEIR, however, the list of projects to be considered is presented in Volume 1, Part 4, Chapter 28: Cumulative Effects. This includes Dogger Bank D Offshore Wind Farm and sets out the approach to assessment, which will be considered in the ES.
Ossian Floating Offshore Wind Farm	Meeting held 11 April 2025, discussion held regarding crossing of the Holderness Offshore MCZ, sharing of information and data and general co-ordination of routeing	Volume 2, Part 3, Appendix 3.17.A: MCZ Assessment Screening; Volume 2, Part 3, Appendix 3.17.B: MCZ Stage 1 Assessment; Volume 2, Part 3, Appendix 3.17.C: In- principal MEEB Strategy provides an assessment of the English Offshore Scheme alone and in combination with other neighbouring developments.

- 25.3.4 Further consultation and data gathering to inform the ES will be undertaken with other marine users to supplement the desk-top review and studies. The following bodies will be consulted, as a minimum, to ensure that the most up-to-date information is collated:
 - Environment Agency
 - The Crown Estate
 - Ministry of Defence (MoD)
 - Offshore Petroleum Regulator for Environment & Decommissioning (OPRED)
 - North Sea Transition Authority (NSTA) Offshore
 - Energies UK (OEUK)
 - British Marine Aggregate Producers Association (BMAPA)
 - Royal Yachting Association (RYA)
 - OWF owners
 - Third-party asset owners (e.g., pipelines, power and telecommunication cables) which the Marine Scheme

25.4 Data Gathering Methodology

25.4.1 This PEIR is based on a range of publicly available data and information only. It is assumed that the data collated is accurate. The sources of data used are noted in **Table 25-3**.

Study Area

- 25.4.2 The study area for this topic area includes the draft Order Limits plus an additional 9.5 km buffer to either side of the centreline within the draft Order Limits (19 km in total). The Zone of Influence (ZOI) on the seabed is relatively small, limited to the physical footprint of the activities on the seabed, however other marine users may also be impacted by the vessels associated with the installation, operation and decommissioning of the English Offshore Scheme; as such, a precautionary approach has been taken and the study area is defined by the potential for the vessels associated with the installation, operation and decommissioning to interact with other sea users directly or indirectly. As the study area is defined by the vessel activity associated with the English Offshore scheme, this study area is consistent with the study area defined for Shipping and Navigation, which is deemed to be standard.
- 25.4.3 Furthermore, the maximum tidal excursion was considered to ensure the potential impact pathway from increased sediment concentrations, which could affect recreational users, was considered. Modelling suggests that the distance at which suspended sediment concentration would be less than 10 mg/l is within 8 km and therefore within the proposed study area defined here.

Tidal River Works

- 25.4.4 In addition to the English Offshore Scheme, works are proposed within a tidal river. The works consist of the following:
 - Tidal river crossing of the River Nene and the River Welland by Horizontal Directional Drilling or a trenchless solution beneath the bed of the rivers
 - Option for the construction of a Temporary Quay on the River Nene
- 25.4.5 In respect to the Tidal River Crossings and in accordance with Article 35 of the 2011 Exempted Activities Order these activities are considered a 'bored tunnel' and exempt from needing a Marine Licence, as works would be carried wholly under the seabed there would be no interaction and no potential for significant adverse effects on the marine environment. Therefore, these works would not be included in the dMLs. Impacts relating to the drill entry and exit above MHWS are assessed in relevant chapters of the **English Onshore Scheme in Volume 1, Part 2**.
- 25.4.6 The River Nene Temporary Quay is an option being explored within the Projects design for the delivery of components for the English Onshore Scheme. At this stage feasibility of the temporary quay is still being explored, and insufficient information is available to complete a preliminary assessment. If taken forward, the ES would include a full assessment of the effects of the temporary quay. **Section 25.16** outlines the further work that would be undertaken to inform the assessment.

Desk Study

- 25.4.7 Desk-based review of publicly available data sources (literature and Geographic Information System (GIS) mapping files) has been used to identify infrastructure and other users, which are described in this baseline.
- 25.4.8 A summary of the organisations that have supplied data, together with the nature of that data is outlined in **Table 25-3**.

Data Source	Description	
The Crown Estate (TCE)	OWF lease agreement areas, Marine Aggregate sites, Carbon Capture and Storage sites (TCE) (2021) (Ref. 25.5), Natural Gas Storage sites (TCE) (2023) (Ref. 25.6)	
ММО	Data sources for licensed aggregate and disposal sites and OWFs.	
KIS-ORCA	KIS-ORCA data is available free of charge to skippers and includes Northern European cables and UK renewable energy structures (KIS- ORCA, 2024) (Ref. 25.7)	
NSTA, Department for Energy Security and Net Zero (DESNZ), OPRED	Hosts data on current and historical oil and gas infrastructure (NTSA) (2023) (Ref. 25.8)	
EMODnet	EMODnet is a consortium of organisations assembling European marine data, data products and metadata from diverse sources in a uniform way. In this chapter, human activities data will be used, such as aggregates, disposal, and offshore windfarm sites (EmodNET) (2023) (Ref. 25.9)	
European Subsea Cable Association (ESCA)	Information for developers on offshore renewable and submarine cable infrastructure (ESCA) (2023) (Ref. 25.2)	
RYA	UK Coastal Atlas of Recreational Boating (RYA) (2019) (Ref. 25.10) and <u>Search Results Where's My Nearest</u> for sailing clubs local to the Anderby Creek Landfall	
CEFAS	Dredging and Disposal Sites	
British Sub Aqua Club (B SAC)	UK dive organisation with clubs located around the UK.	
Divemap	Interactive map showing dive sites around the UK (Divemap) (2025) (Ref. 25.11)	
UK Bathing Waters	Government List of Current UK Bathing Waters (Gov.uk) (2023) (Ref. 25.12)	

Table 25-4 - Data Sources Used to Inform the Other Marine Users Assessment

Survey Work

25.4.9 Extensive information is available regarding other marine users of the North Sea. Following a detailed review of this data to inform the scope of assessment as presented, no site-specific surveys were required for other marine users; however, detailed geophysical surveys have been conducted by the Projects to inform design, with further surveys to be undertaken to inform the UXO identification and clearance campaign. The project description (**Volume 1, Part 1, Chapter 4: Description of the Projects**) outlines that UXO target investigation may be undertaken under this DCO or consented via a separate Marine Licence, UXO clearance would be consented via a separate Marine Licence.

25.5 Overall Baseline

Current Baseline

25.5.1 The baseline characterisation sections below include information on OWFs, power and telecommunication cables, CCS and natural gas storage sites, dredge and spoil disposal sites, aggregate extraction sites, chemical weapon and munitions disposal sites, PEXAs, oil and gas operations and recreational activities.

Offshore Wind Infrastructure

- 25.5.2 At the time of writing, three operational OWF (generation assets) have been identified in proximity of the English Offshore Scheme as shown in **Volume 3**, **Part 3 Figure 25-2:Offshore Wind and Carbon Capture and Storage Infrastructure**. **Table 25-5** summarises the distance from the draft Order Limits to the OWFs within the study area. There are no planned Offshore Wind Farms from previous leasing rounds within the study area, and currently, no new leasing rounds are proposed by The Crown Estate for the east coast of England. All three operational OWFs overlap the study area and range in distance from the draft Order Limits by approximately six to eight kilometres. They are Triton Knoll, Lincs and Inner Dowsing OWFs. Note that export cable routes from OWF where these overlap with the study area, are included within the power cables below.
- 25.5.3 The study area ends at the Scottish Adjacent Waters line; however, it is important to note that there are planned Scottish windfarms adjacent and close to the draft Order Limits adjacent to the border, with some of the associated infrastructure expected to cross into English Waters; the study area overlaps with both Morven and Ossian OWFs. Note that these will also be considered as part of the Marine Environmental Appraisal to accompany the Marine Licence applications in Scotland. Cable routes for both projects cross into English Waters, and these are considered in the power cables below.

OWF	Operator	Status	Distance from the draft Order Limits*	Projects cross OWF export cables
Triton Knoll Offshore Wind Farm	Triton Knoll Offshore Wind Farm Ltd, owner J- POWER/Electric Power Development Co. LTD, Kansai Electric Power Co., Inc	Fully operational 2022	7.6 km	No (see table below and Volume 3, Part 3, Figure 25-2: Offshore Wind and Carbon Capture and Storage Infrastructure)
Lincs Offshore Wind Farm	Ørsted A/S, Equitix Ltd, Octopus Energy Generation & Corio Generation	Fully operational 2010	6.6 km	No
Inner Dowsing Offshore Wind Farm	BlackRock Investment Management (UK) Limited & Equitix Ltd	Fully operational 2009	8.4 km	No
Morven Offshore Wind Farm	EnBW & BP	Planning, Application for Wind farm array expected in 2025 Planning for grid connection to Hawthorn Pit expected in 2026	2 km	Yes
Ossian Offshore Wind Farm	SSE Renewables	Planning. Application for Offshore Wind farm submitted 2024. Application for grid connection expected in 2026	2.7 km	Yes

Table 25-5 - Distance from Order Limits to Existing OWFs within the Study Area

*This is the distance from the OWF generating assets to the draft Order Limits, transmission infrastructure is included in power cables section below.

Carbon Capture and Storage (CCS) and Natural Gas Storage Sites

25.5.4 Two CCS projects at the planning stage have been identified within the study area. These projects are the Viking CCS project led by Harbour Energy, and Endurance, which is a partnership of BP, Eni, National Grid, Shell and Total (Northern Endurance Partnership).

- 25.5.5 The proposed Endurance carbon storage facility under the North Sea is approximately 36 km away from the draft Order Limits however the proposed pipeline linking the onshore facility in Teesside to the permanent storage facility offshore intersects the draft Order Limits adjacent to the north Yorkshire coastline, approximately 36 km from Flamborough Head, at the closest distance.
- 25.5.6 The Viking CCS project comprises an onshore facility and pipeline that links to the permanent storage site within depleted gas reservoirs beneath the Southern North Sea within the Viking oil field. The transportation of carbon dioxide between Theddlethorpe and the offshore storage site will be via an existing offshore pipeline (known as the Lincolnshire Offshore Gas Gathering System (LOGGS) pipeline, see pipeline below) and a newly installed spur pipeline. Consent for the additional spur pipeline has not yet been submitted.
- 25.5.7 The UK Government plans for many more CCS sites to be implemented within the North Sea region. Volume 3, Part 3, Figure 25-2: Offshore Wind and Carbon Capture and Storage Infrastructure illustrates the Endurance site and the Viking CCS, which is near the draft Order Limits.
- 25.5.8 The interaction with the English Offshore Scheme is likely to be limited to the crossing of the pipelines from each of the Projects to the permanent offshore storage facilities, as such, these are considered in the pipeline section below. No pathway exists to impact the permanent gas storage facilities as these are all below the seabed and do not overlap the study area, these are therefore not assessed further in this chapter.

Power and Telecommunication Cables

- 25.5.9 Two operational interconnectors, one planned reinforcement power cable project, seven active telecommunication cables, six operational OWF export cables from Hornsea Projects 1 & 2 OWFs, and two from Triton Knoll Offshore Wind Farm and nine potential sets of export cables for planned or under construction OWF projects have been identified within the study area. These cables are listed in **Table 25-5** and are illustrated in **Volume 3**, **Part 3**, **Figure 25-3**: **Power and Telecommunication Cables, Aggregate Extraction Sites and Disposal Sites within the Study Area**. In all instances, there is potential for spatial overlap with these projects. Where projects are currently in the Application or pre-application phase, there is also the potential for temporal overlap of construction programmes.
- 25.5.10 At the Anderby Creek Landfall, the Triton Knoll Offshore Wind Farm Cables lie adjacent to the English Offshore Scheme, whilst there is overlap with the draft Order Limits, no crossing of cables is proposed here. Similarly, the proposed Outer Dowsing Offshore Wind Farm cables lie within the study area but do not overlap with the draft Order Limits.
- 25.5.11 In addition to the Projects outlined in **Table 25-5**, one reinforcement cable, three interconnector, and two offshore wind export cable projects are in pre-application and may eventually lie in the study area. The progress of these projects is being monitored, and if information becomes available that can be geographically referenced, they would be included in the ES. These projects are listed separately in **Table 25-6**.

Table 25-6 - Distance from Draft Order Limits to Existing or Planned Power orTelecommunication Cables within the Study Area

Cable Name and Developer	Туре	Project information	Interaction with the draft Order Limits
Viking Link – Energinet DK and National Grid	Interconnector	Operational	Crosses
North Sea Link	Interconnector	Operational	Crosses
Eastern Green Link 2 [National Grid and Scottish and Southern Electricity Networks]	Reinforcement power cable	Application submitted to MMO 2022, granted 2023 and varied in 2024 (MLA/2022/00273/1) Marine Scotland Licence granted July 2023. MS Application Ref: 00009943 Construction due to start Autumn 2024 to 2029.	Crosses
Triton Knoll [Equitix and TEPCO Power Grid]	Two export cables	Fully operational	Partial overlap
Hornsea Project 1 & 2 Offshore wind farm Export cables [OFTO - Diamond Transmission Partners Hornsea One Ltd, OFTO for Hornsea Project 2 is still at ITT stage]	Six export cables	Fully operational	Crosses
Hornsea Project 4 Offshore Wind Farm cables [Orsted]	Export cables (assumed x3)	Development Consent Order application approved in July 2023 CfD secured in 2024, construction due in 2026	Crosses
Dogger Bank A Offshore Wind Farm Export cables [SSE]	Export cables (assumed x2)	Constructed	Crosses
Dogger Bank B [SSE Renewables, Equinor and Vårgrønn]	Export cables (assumed x2)	Under Construction	Crosses
Dogger Bank C [SSE Renewables, Equinor and Vårgrønn]	Export cables (assumed x3)	Under Construction	Crosses

Cable Name and Developer	Туре	Project information	Interaction with the draft Order Limits
Dogger Bank D [SSE Renewables, Equinor and Vårgrønn]	Export cables (assumed x3)	Pre-Application	Crosses
Sofia [RWE]	Export cables (assumed x2)	Under Construction	Crosses
Outer Dowsing Offshore Windfarm [Green Investment Group and TotalEnergies]	Export cables (assumed x2)	Application Application submitted in Q1 2024	Overlaps study area but outside draft Order Limits
Dogger Bank South West [RWE]	Export cables (assumed x2)	Application Application submitted in Q2 2024	Crosses
Dogger Bank South East [RWE]	Export cables (assumed x2)	Application Application submitted in Q2 2024	Crosses
Havhingsten [Aquacomms]	Telecom	Active	Crosses
PANGEA NORTH [ASN]	Telecom	Active	Crosses
TATA NORTH EUROPE [EU Networks]	Telecom	Active	Crosses
UK-DENMARK 4 [BT]	Telecom	Abandoned	Crosses
UK-GERMANY 6 [BT]	Telecom	Abandoned	Crosses
NO UK [Altibox]	Telecom	Active	Crosses
CANTAT 3 F4 [Faroese Telecom]	Telecom	Active	Crosses
Breagh Fibre Optic Cable	Fibre	Active	Crosses
Tycom-Kabel	Telecom	Active	Crosses

Table 25-7 - Cable Projects that May in Future be within the Study Area

Cable Name and Developer	Туре	Project information
Eastern Green Link 5	Reinforcement power cable	Pre-application. Transmission reinforcement cables from Aberdeenshire to Lincolnshire.
Nu-Link / SENECA [Nu-Link Consortium – Frontier Power]	Interconnector	Connection agreement at Mablethorpe Substation. Connection between UK and Netherlands. OFGEM licence granted 2023 Unsuccessful in applying for the Ofgem cap and floor regime in Window 3 (November 2024)
Aminth		
[Copenhagen Infrastructure Partners] Interconnector Landfall at Mablethorpe. Connection between UK and Denmark. OFGEM licence granted 2023. Unsuccessful applying for Ofgem cap and floor regime in Window 3 (November 2024), Continental Link Offshore Hybrid Asset [National Grid Ventures]		Pre-Application. Connection between Creyke Beck, East Yorkshire and unspecified European country that may also provide a connection for an offshore wind farm. The DCO application is expected to be submitted between April and June 2029.
Ossian Offshore Wind Farm	Export Cables (assumed x 2)	Pre-Application Application is expected to be submitted in Q3 2026
Morven Hawthorne Pit Grid Connection	Export Cables (assumed x 2)	Pre-application. Construction is planned over a 2.5 year period, but no dates are currently given.

Dredge & Disposal Sites

25.5.12 Ten dredge and disposal sites have been identified in proximity of the English Offshore Scheme and within the study area as shown in **Volume 3**, **Part 3**, **Figure 25-3**: **Power and Telecommunication Cables**, **Aggregate Extraction Sites and Disposal Sites within the Study Area**. **Table 25-7** summarises the distance from the draft Order Limits to these sites. Of these only one remains open and is associated with the construction activities of the Hornsea Offshore Wind Farms.

Table 25-8 - Distance from Draft Order Limits to Disposal Sites within the Study Area

Disposal Site Name	Status	Distance from the Order Limits*
Hornsea 2A, HU209	Closed	Crosses (borderline)
Hornsea 1, HU205	Open	2.2 km
Spurn Head, HU100	Closed	Crosses
Triton Knoll, HU204	Closed	7.6 km
West of Inner Dowsing Bank, HU200	Not for waste disposal	2.3 km
Sheringham Shoal Drillings, HU123	Closed	6.7 km
Wash Bank, HU114	Closed	8.7 km
Pickerhill Field, HU116	Closed	0.7 km
Adjacent to South Basin Gas, HU115	Closed	Crosses
Tyne Burial Site, TY193	Closed	7.6 km

*This is the nearest distance to the draft Order Limits

Aggregate Extraction Sites

25.5.13 Six active aggregate extraction sites have been identified in proximity of the draft Order Limits within the study area as shown in Volume 3, Part 3 Figure 25-3: Power and Telecommunication Cables, Aggregate Extraction Sites and Disposal Sites within the Study Area. Table 25-8 summarises the distance from the draft Order Limits to these sites. Some are one kilometre or less from the draft Order Limits.

Table 25-9 - Distance from Draft Order Limits to Aggregate Extraction Sites within the Study Area

Site Name and ID	Site owner	Status	Distance from the draft Order Limits*
Off Saltfleet Area 197	Tarmac Marine Ltd.	Active	1 km
Humber Overfalls Area 493**	Tarmac Marine Ltd.	Active	minor overlap / directly adjacent
Humber Estuary Area 400	Hanson Aggregates Marine Ltd.	Active	1 km
Humber Estuary Areas 106/1, 106/2, 106/3	Hanson Aggregates Marine Ltd.	Active	3.6-7.3 km
Humber 4 Areas 514/4	CEMEX UK Marine Ltd.	Active	0.5 km

Site Name and ID	Site owner	Status	Distance from the draft Order Limits*
Inner Dowsing Area 1805	Hanson Aggregates Marine Ltd.	Exploration	2.5 km

*This is the nearest distance to the draft Order Limits

** Although the draft Order Limits overlaps with Area 493, the route centrelines from either Project will not enter the marine aggregate site.

Oil and Gas Operations

- 25.5.14 There are fifteen active pipelines which cross the draft Order Limits that have been identified, and a further eleven which are not in use or are abandoned. These pipelines are listed in Table 25-9 and illustrated in Volume 3, Part 3, Figure 25-4: Oil and Gas Infrastructure (inc pipelines) within the Study Area. There are no wells that intersect with the draft Order Limits, but many within the study area that are abandoned (155), completed shut-in (11) and operational (21). There are well paths that cross the draft Order Limits, seven of which are abandoned, one completed and shut-in and another completed and is operating (NSTA, 2024) (Ref. 25.8).
- 25.5.15 As well as the pipelines that are in the North Sea, there are 12 extant licensed oil and gas blocks which the draft Order Limits will pass through. These, along with other licensed blocks which fall within the study area are listed in **Table 25-10**.

Table 25-10 - Oil and Gas Pipeline	Crossings within the Study Area
------------------------------------	---------------------------------

Name	Туре	Status
Amethyst A2D to Easington	Gas	Not in use
Amethyst C1D to Amethyst A1D	Gas	Not in use
Breagh 20IN gas pipeline - Part 1	Gas	Active
Breagh 3IN MEG pipeline - Part 1	Chemical	Active
Cleeton CP to Dimlington	Gas	Active
Cleeton to Minerva umbilical	Hydraulic	Active
Ekofisk 2/4J to Teesside	Oil	Active
Everest to Teesside 36IN gas export (CATS pipeline)	Gas	Active
Helvellyn pipeline	Gas	Active
Langled pipeline	Gas	Active
LOGGS PP to Theddlethorpe gas line	Gas	Not in use
LOGGS PP to Theddlethorpe MEOH line	Chemical	Not in use
Pickerall A to Theddlethorpe	Chemical	Not in use

Name	Туре	Status
Minverva to Cleeton PIGGY	Chemical	Active
Minverva to Cleeton gas export	Gas	Active
Neptune to Mercury pipeline	Gas	Active
Neptune to Mercury umbilical	Hydraulic	Active
Nordpipe Olijeledning	Oil	Active
Rose control umbilical	Chemical	Abandoned
Rose pipeline	Gas	Abandoned
Theddlethorpe to Murdoch MD	Gas	Not in use
Theddlethorpe to Murdoch MD MEOH line	Methanol	Not in use
Viking AR to Theddlethorpe gas line	Gas	Not in use
Viking AR to Theddlethorpe MEOH line	Chemical	Not in use
West Sole to Easington 16IN gas line	Gas	Active
West Sole to Easington 24IN gas line	Gas	Active

Table 25-11 - Oil And Gas Extant Licenced Blocks

Block Reference	Site Licence Group	Distance from the Order Limits*
47/4a	Bp Exploration, Dana Petroleum Limited, eni UK Limited, Harbour Energy plc, Perenco oil & gas, Rockrose Energy	Crosses
47/3c	Perenco oil & gas, Rockrose Energy	Crosses
42/28a	Exxonmobil International, Perenco oil & gas, Rockrose Energy, Shell plc, Spirit Energy	Crosses
41/10a	Deltic Energy, One-Dyas, Shell plc	Crosses
41/5a	Deltic Energy, Ene-Dyas, Shell plc	Crosses
42/7b	Shell plc	Crosses
42/1a	Deltic Energy, One-Dyas, Shell plc	Crosses
47/4c	Perenco oil & gas, Rockrose Energy	Crosses
42/1b	Deltic Energy, Shell plc	Crosses
42/27	Dana Petroleum Limited, Harbour Energy plc	Crosses

Block Reference	Site Licence Group	Distance from the Order Limits*
47/5a	Bp Exploration, Dana Petroleum Limited, eni UK Limited, Harbour Energy plc, Perenco oil & gas, Rockrose Energy	Crosses
42/28d	Dana Petroleum Limited, Harbour Energy plc	Crosses
42/28b	Perenco oil & gas, Rockrose Energy	1.1 km
47/10b	Dana Petroleum Limited, Perenco oil & gas	1.5 km
47/3f	Cornerstone oil and gas Ltd, Petrogas International	1.7 km
41/5b	Deltic Energy, Shell plc	1.9 km
47/3b	Exxonmobil International, Perenco oil & gas, Rockrose Energy, Shell plc, Spirit Energy	2.4 km
42/29a	Dana Petroleum Limited, Perenco oil & gas	3.0 km
47/4b	Perenco oil & gas, Rockrose Energy	3.5 km
48/6a	Dana Petroleum Limited, Perenco oil & gas	4.5 km
47/5c	Bp Exploration, Dana Petroleum Limited, eni UK Limited, Harbour Energy plc, Perenco oil & gas, Rockrose Energy	4.8 km
47/3i	Cornerstone oil and gas Ltd, Petrogas International	5.0 km
47/9c	Heyco Energy Group, Spirit Energy	5.8 km
42/12a	Ineos Industries, One-Dyas	5.9 km
47/9b	Perenco oil & gas, Rockrose Energy	6.8 km
42/2c	Shell plc	6.8 km
TF49b	Angus Energy, Heyco Energy Group, Union Jack Oil plc	7.6 km
42/13a	Ineos Industries, One-Dyas	8.14 km

*This is the nearest distance to the draft Order Limits

Chemical Weapon and Munitions Disposal Sites

25.5.16 There are no chemical weapon or munition disposal sites that lie within the draft Order Limits or study area. However, UXO munitions are frequently found in the North Sea. A pre-construction UXO study would be conducted to identify any potential UXO along the cable route, where identified, they would be avoided or cleared (subject to a separate Marine Licence Application). In addition, the construction contractor would develop procedures to deal with any UXO not previously identified encountered during installation.

MoD Practice and Exercise Areas (PEXA)

25.5.17 PEXAs are sites available for training use primarily by the UK armed forces, but also those of overseas nations. They can be over land or water, or both, and may involve the firing of live ammunition. Military vessels operate in low densities (0.4%) around the Donna Nook Firing Range in the Anderby Creek Landfall vicinity. Fourteen MoD PEXA have been identified within the study area **(Table 25-11)**. It is not considered possible for the English Offshore Scheme to avoid all of these. Of note, the Donna Nook Firing range lies to the north of the Anderby Creek Landfall, as well as the Humber Weapons Range Airspace.

Table 25-12 - MoD	PEXA	within	the	Study	Area
-------------------	------	--------	-----	-------	------

Name	Category	Information
D613D	AIAA - Areas of Intense Aerial Activity	Authority: HQ Air; Minimum Flight Level: 10,000 feet; Maximum Flight Level: 66,000 feet
D307: DONNA NOOK	Surface danger area, firing danger area	Authority: DIO SD TRG; Maximum Altitude: 20,000 0; Activity: F,B
D323F	AIAA - Areas of Intense Aerial Activity	Authority: HQ Air; Minimum Flight Level: 25,000 feet; Maximum Flight Level: 66,000 feet
D323C	AIAA - Areas of Intense Aerial Activity	Authority: HQ Air; Minimum Flight Level: 5,000 feet; Maximum Flight Level: 66,000 feet
D323D	AIAA - Areas of Intense Aerial Activity	Authority: HQ Air; Minimum Flight Level: 5,000 feet; Maximum Flight Level: 66,000 feet
D323B	AIAA - Areas of Intense Aerial Activity	Authority: HQ Air; Minimum Flight Level: 5,000 feet; Maximum Flight Level: 66,000 feet
D323E	AIAA - Areas of Intense Aerial Activity	Authority: HQ Air; Minimum Flight Level: 25,000 feet; Maximum Flight Level: 66,000 feet
D323A	AIAA - Areas of Intense Aerial Activity	Authority: HQ Air; Minimum Flight Level: 5,000 feet; Maximum Flight Level: 66,000 feet
D323G	AIAA - Areas of Intense Aerial Activity	Authority: HQ Air; Minimum Flight Level: 25,000 feet; Maximum Flight Level: 66,000 feet
D412: STAXTON	Surface danger area, firing danger area	Authority: HQ Air; Maximum Altitude: 10,000 0; Activity: AAF
D513B: DRURIDGE BAY	Surface danger area, firing danger area	Authority: HQ Air; Maximum Altitude: 23,000 0; Activity: F
D513: DRURIDGE BAY	Surface danger area, firing danger area	Authority: HQ Air; Maximum Altitude: 10,000 0; Activity: F

Name	Category	Information
D513A: DRURIDGE BAY	Surface danger area, firing danger area	Authority: HQ Air; Maximum Altitude: 23,000 0; Activity: F
D513B	Firing danger area	Firing Practice Area

- 25.5.18 It should be noted that there are a number of types of military PEXAs with which the study area interacts. Surface danger areas or firing danger areas are used by the Army for land-based practice firing of artillery and other projectiles. These danger areas typically form a small 'cone' with the base of the cone out to sea, creating a restricted zone to ensure that no vessels are inadvertently struck, Donna Nook is in this category. In addition, there are a number of areas that lie off the coast through which the English Offshore Scheme runs. Aircraft use these areas for live firing practice, with altitudes from the surface up to 23,000 feet (ft). As this relates to interaction with vessel activity, this is considered in **Volume 1, Part 3, Chapter 23: Shipping and Navigation**.
- 25.5.19 A number of Danger Areas noted as Areas of Intense Aerial Activity (AIAA) overlie the English Offshore Scheme. These are used for air combat and supersonic flight training. The Danger Areas form a three-dimensional 'block' of airspace with specific upper and lower height limits; the minimum flight altitude is approximately 5,000 ft. above mean sea level (AMSL) and extending up to approximately 66,000 ft. AMSL.
- 25.5.20 For those areas which are associated with aerial activity with a 5,000 ft. base height, it is expected that all aircraft using the Danger Area will not be operating below this height. There are therefore no activities proposed for the English Offshore Scheme that could interact with aircraft using this airspace, and therefore no pathway for an impact to occur.
- 25.5.21 Danger Area 412 (D412) Staxton overlies the English Offshore Scheme. It is used for air-to-air firing practice by the RAF and other NATO air arms. D412 extends from the surface to 10,000 ft. AMSL and is only active as notified by the appropriate agencies (MOD and CAA through the issue of a 'NOTAM' (Notice to Airmen)). There is the potential for impacts to arise from vessels operating within the study area and aircraft flying at lower levels. As this relates to interaction with vessel activity, this is considered in **Volume 1, Part 3, Chapter 23: Shipping and Navigation**.

Recreational Activities

- 25.5.22 Recreational activities in the marine environment may take place sporadically within the study area. Due to the largely unregulated nature of these activities, it is difficult to predict the exact extent of these receptors. The below activities provide a high-level characterisation of the types of activities taking place within the study area, however, the list is not an exhaustive list.
- 25.5.23 With the exception of the Anderby Creek Landfall and its approach (the first 40 km of the cable route from Anderby Creek Landfall), the draft Order Limits lie some distance from the coastline and outside of the 12 NM (UK territorial seas) and therefore there is limited potential for interaction in the offshore section of the English Offshore Scheme. The assessment, therefore, focusses on where there is the greatest potential for interaction; at the Anderby Creek Landfall and its approach. However, environmental measures listed in **Table 25-13** will be applicable to all recreational users wherever they are encountered.

Bathing Waters

25.5.24 There are four designated 'bathing waters' close to the landfall, which are listed in **Table 25-12**, all of which were classified as having excellent bathing water status for the period 2021 to 2024. Consultation with the Environment Agency identified that the entire coastline within the draft Order Limits is considered to be a bathing water. These are shown in **Volume 3**, **Part 3**, **Figure 25-5: Bathing Waters and Sailing Clubs in Study Area**.

Table 25-13 - Bathing Waters within the Study Area and Distance from Order Limits

Bathing Water Name	Area	Year of Designation	Status (2024)	Distance from the Order Limits*
Sutton-on-Sea	Lincolnshire	1988	Excellent	5 km
Huttoft and Marsh Yard (previously Moggs Eye)	Lincolnshire	1988	Excellent	Within Order Limits
Anderby	Lincolnshire	1988	Excellent	0.7 km
Mablethorpe Town	Lincolnshire	1988	Excellent	8.6 km

* This is the nearest distance to the combined Order Limits.

Source: Gov.UK, 2023 (REF 25.5)

SCUBA Diving

25.5.25 There is evidence that there is recreational SCUBA diving which takes place along the east and northeast coast of England, mainly associated with wrecks but also for marine environmental research (Seasearch) (2023) (Ref. 25.13). Divemap (Divemap) (2025) (Ref. 25.11) indicates two wrecks off Spurn Head that may be popular dive sites, these lie just beyond the 12 NM limit and therefore within the study area. Namely, these are the wrecks 'Merchiston' (15.3 NM from Spurn Head), and 'Benmacdhui' (14.8 NM from Spurn Head). Other dives sites indicated off the east coast all fall close to the coast and outside of the study area. No dive sites are indicated off the Lincolnshire coast in proximity to the Anderby Creek Landfall. These are shown in **Volume 3, Part 3, Figure 25-5: Bathing Waters and Sailing Clubs in Study Area**.

Sailing and Cruising

25.5.26 The east and northeast coast of England is a popular area to sail, with many RYA sailing clubs along this coastline. The RYA Coastal Atlas (RYA) (2019) (Ref. 25.10) identifies the study area as being of low to medium use for recreational sailing. Further information on vessel activity is provided in **Volume 1, Part 3**, **Chapter 23: Shipping and Navigation**. There is an RYA affiliated sailing club at Saltfleet Haven, which lies within the study area. There are sailing clubs further north into the Humber, however, these lie outside of the study area. As noted in **Volume 1**, **Part 3**, **Chapter 23: Shipping and Navigation**, recreational vessel activity is of low density and that AIS data suggests that recreational vessels typically travel to and from the Humber within the nearshore.

Water Sports

25.5.27 The east and northeast coast of England have seasonal recreational water sports utilising the coastal waters, including surfing, paddleboarding, canoeing, kite surfing, sailboarding, foiling and water skiing.

Angling

25.5.28 There are a number of chartered fishing vessels along the east and northeast coast which run fishing trips during the winter months, aiming to catch cod, skate and whiting and in the spring, summer and autumn, targeting cod, ling and pollock.

Future Baseline

- 25.5.29 As the UK is affected by the Net Zero target heading towards 2050, there are many developments planned within the vicinity of the draft Order Limits seeking to contribute toward meeting this target. The assessment within this chapter is based upon developments already in the planning system, that have been granted consent and those that are in or have completed construction. UK offshore wind has doubled, based on 2010 figures, now providing almost 20% of the UK Electricity demand and is further anticipated to quadruple by 2030 (based on 2010 figures). The North Sea will see the majority of this expansion and could see up to 100 GW of offshore wind by 2050 (Nicole et al.)(2020) (Ref. 25.14). With offshore wind capacity due to increase over the next few years, along with energy security concerns, the UK has major infrastructure changes in planning, in addition to growth in CCS and a decrease in the Oil and Gas industry. The assessment assumes that all projects that are noted in the current baseline will have been constructed within the operational lifetime of the project.
- 25.5.30 Within the study area in particular, there are three planned interconnectors, three planned reinforcement power cable projects and a number of planned windfarms and associated cables, all referenced in the above sections. It is anticipated that additional infrastructure would be brought forward within the study area within the next 25-30 years, however, it is not possible at this stage to quantify this.

25.6 Environmental Measures

- 25.6.1 As set out in **Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology**, the environmental measures are characterised as design measures or control and management measures. A range of environmental measures would be implemented as part of the English Offshore Scheme and will be secured in the DCO as relevant.
- 25.6.2 **Table 25-13** outlines how these design and control measures will influence the other marine users assessment. A range of potential impacts on other marine users have been identified, which may occur during the construction, operation, and decommissioning phases of the English Offshore Scheme.
- 25.6.3 Several management plans will be provided as outline Management Plans with the DCO application to support the Deemed Marine Licence. These will include an outline Construction Environmental Management Plan (CEMP) and outline Marine Pollution Contingency Plan. These documents will outline measures to be implemented to comply with legislation (e.g., in relation to the prevention of oil and chemical spills) and best industry practice during all phases of the English Offshore Scheme. These management plans will also include details of notices to be sent to

other marine users prior to activities being undertaken. Final management plans will be submitted in accordance with the dMLs to discharge the licence conditions. An Outline CEMP can be found in **Volume 2**, **Part 1**, **Appendix 1.5.C: Outline Construction Environmental Management Plan**. In addition, design measures identified through the EIA process have been applied to avoid or reduce potential significant effects. Design measures included that are relevant to other Marine User receptors are included in **Table 25-13** below and are also included in **Volume 2**, **Part 1**, **Appendix 1.5.A: Outline Register of Design Measures**.

Receptor	Potential changes and effects	Embedded measures
Third Party Infrastructure – cables (including offshore wind farm export cables) and pipelines	Interference/disturbance to third party asset owners	Crossing and/or proximity agreements will be agreed with aggregate extraction, cable and pipeline owners. The crossing agreement describes the rights and responsibilities of the parties and also the design of the crossing. Crossing design will be in line with industry standards, using procedures and techniques agreed with the cable and pipeline owners.
Third Party Infrastructure – cables (including offshore wind farm export cables) and pipelines	Interference/disturbance to third party asset owners	Client Representation onboard Project vessels, ensuring compliance with crossing design and communications with Asset Owners.
Third Party Infrastructure – cables (including offshore wind farm export cables) and pipelines Recreational Users	Interference/disturbance to third party asset owners Disturbance and displacement	UXO survey and removal and /or charting of confirmed UXO targets, highlighting known risks to other marine users.
Recreational Users	Disturbance and displacement	All project vessels must comply with the International Regulations for Preventing Collisions at Sea (1972) (IMO, 1972) (Ref. 25.15), International Convention for the Prevention of Pollution from Ships (the MARPOL Convention 73/78) (IMO, 1973) (Ref. 25.16) with the aim of preventing and minimising pollution from ships and the International Convention for the Safety of Life at Sea (SOLAS) (1974) (Ref. 25.17).

Table 25-14 - Summary of the Environmental Measures

Receptor	Potential changes and effects	Embedded measures
Recreational Users	Disturbance and displacement	Existing shipping lanes will be utilised for vessel transiting routes to avoid additional disturbance, where practicable.
Recreational Users	Disturbance and displacement	Timely and efficient communication will be given to sea users in the area via Notices to Mariners (NtM), Kingfisher Bulletins, Radio Navigation Warnings, Navigational Telex (NAVTEX and Navigational Areas (NAVAREA) warnings and /or broadcast warnings.
All Receptors	Occupancy of the seabed by cables	As-built locations of cable and external protection will be supplied to UKHO (Admiralty), The Crown Estate and Kingfisher (KIS-ORCA).

25.7 Scope of the Assessment

Spatial Scope and Study Area

- 25.7.1 The draft Order Limits are illustrated in **Volume 3**, **Part 3**, **Figure 25-1: Draft Order Limits and Other Marine Users Study Area**. The extent of the draft Order Limits is approximately 436 km long in relation to the EGL 3 Project and 425 km long in relation to the EGL 4 Project in English inshore and offshore waters.
- 25.7.2 The spatial scope of the assessment of other marine users covers the area of the English Offshore Scheme contained within the draft Order Limits, together with the Zones of Influence (ZoIs)/study area(s) described as follows. The draft Order Limits are nominally 500 metres (m) wide, the width of the route varies along the route to accommodate sensitivities such as challenging ground conditions, archaeology and ecological sensitivities. The EGL3 Project and EGL4 Project have been assessed within a single draft Order Limits, where the draft Order Limits for EGL 3 and EGL 4 are less than 500 m apart, this is shown as a single corridor.
- 25.7.3 The draft Order Limits provide a degree of flexibility as the cables could be laid anywhere within the defined limits.

Temporal Scope

25.7.4 The temporal scope of the assessment of other marine users is consistent with the period over which the English Offshore Scheme would be carried out and as outlined in **Volume 1, Part 1, Chapter 4: Description of the Projects**. It is assumed that construction of the English Offshore Scheme will commence at the earliest in 2028 and cover a period of 6 years of total construction time, with 12 months allocated to each Project. Operation would commence in 2034, with periodical maintenance required during the operational phase of the English Offshore Scheme. It is assumed that maintenance and repair activities could take place at any time during the life span of the English Offshore Scheme.

25.7.5 Upon completion of construction, the English Offshore Scheme is expected to have a life span of more than 40 years. If decommissioning is required at this point in time, then activities and effects associated with the decommissioning phase are expected to be of a similar level to those during the construction phase works, albeit with a lesser duration of two years. Acknowledging the complexities of completing a detailed assessment for decommissioning works up to 40 years in the future, based on the information available, the Projects have concluded that impacts from decommissioning would be no greater than those during the construction phase. Furthermore, should decommissioning take place, it is expected that an assessment in accordance with the legislation and guidance at the time of decommissioning would be undertaken. In addition, it is expected that the DCO will include a requirement for a decommissioning EIA for approval by the relevant authority prior to decommissioning and in line with The Crown Estate requirements.

Identification of Receptors

25.7.6 The principal other marine users receptors that have been identified as being potentially subject to potential significant effects are summarised in **Table 25-14** and are shown in **Volume 3, Part 3, Figures 25-2 - 25-5.**

Receptor	Reason for consideration
Third party infrastructure – Cables (including offshore wind export cables) and pipelines	Interaction with other seabed infrastructure. Construction, operation and decommissioning activities have the potential to interact and damage third party assets
Recreational users	Potential for disruption to recreational users, particularly at the Anderby Creek Landfall area during construction and periods of maintenance
Future development of Oil and Gas, aggregates, power and telecom cables, Offshore wind farms and CCS infrastructure	The occupancy of seabed by the cables during operation may restrict future receptors from undertaking works
Oil and Gas, aggregates, power and telecom cables, Offshore wind farms and CCS	The occupancy of seabed by rock protection during operation may restrict future receptors from undertaking works
Ministry of Defence (MoD)	Potential for disruption to military activity, such as Practice and Exercise Areas (PEXA) and firing ranges

Table 25-15 - Other Marine Users Receptors Subject to Potential Effects

Potential Effects Considered within this Assessment

25.7.7 The effects on other marine users receptors, which have the potential to be significant and have been taken forward for detailed assessment, are summarised **Table 25-15.** Potentially significant effects are not expected to be the same for all phases, which is highlighted in the table below.

Table 25-16 - Other Marine Users Receptors Scoped in for Further Assessment

Receptor	Likely significant effects
Third party seabed infrastructure – Cables (including offshore wind farm export cables, power and telecom cables) and pipelines	Interaction with other marine users Damage to existing infrastructure due to activities such as boulder clearance, PLGR, pre-sweeping of sandwaves, as well as cable burial and trenching, anchoring / jack-up legs.
	There is the potential that localised repair works, or remedial external cable protection, may be required, which potentially could affect any new or existing infrastructure.
Recreational Users	Interaction with other marine users Loss of access for users to recreational areas and displacement from undertaking their usual activities during construction and during periods of maintenance. Loss of water quality as a result of construction and maintenance activities.
Future development of Oil and Gas, aggregates, power and telecom cables, Offshore wind farms and CCS infrastructure	Occupancy of seabed – Below seabed. Presence of cables. Operation (including repair and maintenance) - The presence of the cables in the seabed may disrupt the placement of future infrastructure/ offshore activities.
Future development of Oil and Gas, aggregates, power and telecom cables, Offshore wind farms and CCS infrastructure	Occupancy of seabed – on seabed. Operation (including repair and maintenance) -External cable protection. The presence of external cable protection may disrupt the placement of future infrastructure/ offshore activities.
MoD	Interaction with other marine users Vessel interaction with low flying aircraft during construction and during periods of maintenance.

25.7.8 The receptors/effects detailed in **Table 25-16** have been scoped out from being subject to further assessment because the potential effects are not considered likely to be significant.

Table 25-17 - Summary of Effects Scoped Out of the Other Marine Users Assessment

Receptors/potential effects	Justification
Oil and Gas, aggregates, power and telecom cables, Offshore wind farms and CCS Occupancy of the seabed - below seabed (presence of cables) - Construction phase	This effect can only be realised once the cable has been installed therefore, the effect is assessed for the operation phase only.

Receptors/potential effects	Justification
Oil and Gas, aggregates, power and telecom cables, Offshore wind farms and CCS Occupancy of the seabed - on seabed (presence of external cable protection) - Construction phase	This effect can only be realised once the cable has been installed; therefore, the effect is assessed for the operation phase only.

25.8 Key Parameters for Assessment

Realistic Worst-Case Design Scenario

- 25.8.1 The assessment has followed the Rochdale Envelope approach as outlined in Volume 1, Part 1, Chapter 4: Description of the Projects and Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology. The assessment of effects has been based on the description of the Projects and parameters outlined in Volume 1, Part 1, Chapter 4: Description of the Projects. The realistic worst-case design parameters are provided below with regard to other marine users, along with the reasons why these parameters are considered worst-case. The preliminary assessment for other marine users has been undertaken on this basis. Effects of greater adverse significance are not likely to arise should any other development scenario, based on details within the Rochdale Envelope (e.g., different infrastructure layout within the draft Order Limits), to that assessed here be taken forward in the final design scheme.
- 25.8.2 In relation to other marine users the following assumptions are made regarding the Project design parameters in order to ensure a realistic worst-case assessment has been undertaken, these assumptions are based on expert judgement and precedent from other DCO applications of a similar nature and the activities that present the greatest opportunity for disruption to other marine users.
- 25.8.3 With regards to activities that would temporarily interact or disrupt asset owners from accessing their assets or recreational users from accessing recreational areas, the following assumptions present the greatest opportunity for interaction with asset owners or recreational users. The numbers presented below are for each project alone.
 - 2 vessels would be deployed to undertake the preparation of crossing of third party assets during construction.
 - 3 vessels would be deployed to undertake the seabed preparation works such as PLGR, sandwave pe-sweeping, during construction.
 - 7 vessels would be deployed to undertake installation of the Anderby Creek Landfall enabling works (i.e., HDD and installation of the ducts) during construction.
 - 5 vessels plus up to 10 guard vessels, would be deployed to undertake the installation of the cables in the offshore area during construction (including remedial rock placement).
 - It is assumed that the number of vessels described above for construction would also apply to decommissioning.

• With regards to occupancy of the seabed (presence of cables and cable protection) it is assumed that the placement of cable protection associated with cable crossings presents the greatest footprint overlap with third party infrastructure and amounts to 0.06 km² for the EGL 3 Project and 0.066 km² for the EGL 4 Project.

Consideration of Construction Scenarios

- 25.8.4 As detailed in **Volume 1, Part 1, Chapter 4: Description of the Projects**, the timing of construction activities set out within this PEIR is indicative. To allow for any unexpected circumstances and a realistic worst case assessment, the impact assessment for the English Offshore Scheme considers the following construction scenario to ensure the worst-case scenario for other marine users can be identified and assessed:
 - EGL 3 and EGL 4 constructed sequentially, with no overlap of construction activities. This would result in a greater duration over which effects to other marine users may be felt.

25.9 Assessment Methodology

Overview

- 25.9.1 The generic project-wide approach to the assessment methodology is set out in **Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology**, and specifically in **Sections 5.4** to **5.6**. However, whilst this has informed the approach that has been used in this other marine users assessment, it is necessary to set out how this methodology has been applied, and adapted as appropriate, to address the specific needs of this other marine users assessment. Details are provided below.
- 25.9.2 The criteria for characterising the sensitivity and magnitude for other marine users are outlined in **Table 25-17** and **Table 25-18**. respectively. Once sensitivity and magnitude have been defined, these are combined according to the significance matrix provided in **Table 25-19**.
- 25.9.3 The assessment of sensitivity will be made with consideration of the vulnerability of the receptor to an impact and its ability to adapt and accommodate the change. Vulnerability can differ between different receptors groups and will also vary depending on the impact pathway. The assessment of magnitude will be made with consideration of the extent of the area impacted and the duration and frequency of the impact.
- 25.9.4 The impact assessment for the purposes of this PEIR has used available evidence, professional judgement and knowledge of other marine users to determine the level of impact.

Table 25-18 - Definitions of Sensitivity for Other Marine Users

Receptor sensitivity	Description
High	Receptor is economically valuable and/or has low/no capacity to return to pre-impact conditions, e.g., low tolerance to change and low

Receptor sensitivity	Description
	recoverability, such as loss of access with no alternatives or the impact will have major financial consequences for the receptor
Medium	Receptor is of intermediate economic value and/or is tolerable to change, e.g., acceptable alternatives with minor financial consequences.
Low	May affect behaviour but is not a nuisance to the user, with acceptable financial consequences, e.g., short-term, reversible changes.
Negligible	The receptor is tolerant to change with no effect on its character.

Table 25-19 - Definitions of Impact Magnitude Criteria for Other Marine Users

Impact Magnitude	Definition
High	Total loss of, or major alteration to key elements or features of the pre- project conditions, such that the post-project character or composition of the feature would be fundamentally changed.
Medium	Loss of or alteration to key elements or features of the pre-project conditions, such that the post-project character of the feature would be partially changed.
Low	Minor alteration from pre-project conditions
Negligible	No or unquantifiable change to pre-project conditions.

Table 25-20 - Significance Matrix

		Sensitivity				
		High	Medium	Low	Negligible	
Negative magnitude	High	Major		Moderate	Minor	
	Medium	Major	Moderate	Minor	Minor	
	Low	Moderate	Minor	Minor	Negligible	
	Negligible	Minor	Minor	Negligible	Negligible	
Beneficial magnitude	Negligible	Minor	Minor	Negligible	Negligible	

	Sensitivity				
	High	Medium	Low	Negligible	
Low	Moderate	Minor	Negligible	Negligible	
Medium	Major	Moderate	Minor	Negligible	
High	Major	Major	Moderate	Minor	

Preliminary Assessment of Cumulative Effects

25.9.5 At the current stage of the Projects (PEIR stage), design information for the Projects is insufficient to allow for a robust cumulative assessment to be undertaken. Furthermore, given the current position in relation to baseline data collection, with much of the onshore environmental surveys still to be undertaken during 2025, the baseline identified at this PEIR stage cannot be taken as a complete picture of the potential presence and significance of sensitive receptors. Therefore, a cumulative assessment has not been undertaken at this stage; however, **Volume 1, Part 4, Chapter 28: Cumulative Effects Assessment**, presents the long and short lists of 'other developments' which will be considered at the ES stage, and the methodology which allowed for the identification of these other developments, to allow consultation bodies to form a view and provide comment on the other developments included. The long list will be reviewed and if necessary, updated in the lead up to the ES, as the Projects design further evolves and in response to any comments raised at statutory consultation.

25.10 Preliminary Assessment of Interaction with Other Marine Users -Cables (Power, OWF Cables and Telecoms) and pipelines (from Oil and Gas and CCS Facilities)

25.10.1 From the early design stage, the Applicant has engaged with other developers, including OWF developers and power cables owners and operators, to ensure, wherever possible, third party infrastructure has been avoided. However, avoidance is not possible in all instances.

Construction

- **25.10.2** Other marine users (cables and pipelines) could be affected by damage to:
 - Active cables and pipelines as a result of disturbance to the seabed;
 - Active cables and pipelines at cable crossing points; or
 - Out of service cables as a result of disturbance to the seabed.
- 25.10.3 Damage to both active and inactive cables and pipelines could arise during construction as a result of seabed preparation activities, cable burial and trenching activities and anchoring and jack up vessels. The English Offshore Scheme will cross 15 active pipelines, plus one planned pipeline in connection with the Endurance CCS facility, 22 active power or telecommunications cables, plus 10 potential sets of export cables from offshore wind farms and 13 out of service or inactive pipelines

and cables. This includes a number of pipeline crossings on the approach to the Anderby Creek Landfall.

- 25.10.4 Subsea cables and pipelines are considered to be of international importance, given that they contribute to our security of energy supply. Damage could have large financial and social implications and cause long term disruption to services and energy supply. The **sensitivity** of the receptors is therefore considered **high**, and the **magnitude** of the impact is also considered **high** due to the potential consequences of damage. Therefore, the **significance** of the effect would be **Major**, **without the implementation of environmental measures**.
- 25.10.5 In order to reduce the potential impact, a number of environmental measures are available and will be included within the CEMP, secured through the DCO, and include;
 - Compliance with the CEMP and SHE plans, which would include detailed mapping of all third party assets, ensuring contractors are aware of potential snagging risks and have procedures in place for working in proximity to third party assets, e.g., no anchoring near third party assets.
 - Notice to Mariners will also be issued as standard practice, giving details of proposed works, timings and locations.
- 25.10.6 Subject to the measures above being implemented, it is considered that the magnitude would be reduced to low and the residual significance of the effect would be **Minor.**
- 25.10.7 In addition, it is standard industry practice to agree crossing and proximity agreements with third party asset owners to agree the design of crossings and ensuring safety if personnel when working in proximity to third party assets. This will also likely include a requirement for a Client Representative to be present to observe any crossing installation. In accordance with ESCA Subsea Cables UK Guideline No.6 (ESCA, 2012) (Ref. 25.3) it should be noted that whilst crossing and proximity agreements are not mandated in law, Safety Of Life At Sea (SOLAS) is one of the primary drivers for adopting sensible crossing and proximity agreements and serves to underpin every decision process developing these agreements.
- 25.10.8 Out of service cables are expected to be partially or fully removed where these cross the English Offshore Scheme in consultation with the owner or operator. Should permission not be granted by the asset owner, crossing of the out of service cable would be made as per in service cables and pipelines. The **sensitivity** of these receptors would, however, be **low** given they are not contributing to services or energy supply, and the **magnitude** of impact would be **negligible**; therefore, the **significance** of effect has been assessed as **Negligible and Not Significant**.

Operation

- **25.10.9** During operation, other marine users (cables and pipelines) could be affected by:
 - Damage to cables and pipelines as a result of disturbance to the seabed, such as damaged caused by, for example, anchored vessels, and weaknesses in protection measures between crossing points;
 - Changes to marine physical processes affecting the stability or integrity of cables and pipelines; or
 - Restriction of cable and pipeline maintenance activity.

- 25.10.10 During operation of the English Offshore Scheme, there would be sporadic maintenance visits and surveys to ensure the cables from the EGL 3 Project and the EGL 4 Project remain buried and that in areas of cable crossing, cable protection remains fit for purpose. There may also be occasions where repairs to the cables are required. This may involve the use of jack up vessels or anchored vessels that have the potential to cause damage to third party cables or pipelines. The **sensitivity** of the receptor is **high** for the same reasons as outlined above for construction. The **magnitude** of the impact would also be **high**, as the consequences of damage would be severe. The **significance** of the effect has therefore been assessed as **Major**, **without environmental measures**.
- 25.10.11 The Applicant would observe appropriate buffers around third party infrastructure during maintenance activities, within which certain requirements will be placed on the Applicant in accordance with their standard operating procedures, to reduce the potential for interaction with third party infrastructure. In addition, previous agreements made for construction with third party asset owners would also apply for maintenance activities. With these operating procedures in place, the **magnitude** of effect would be reduced to **negligible**, and the **significance** of any effect would be **Minor and Not Significant**.
- 25.10.12 There is the potential for scour to occur local to the cable protection laid to support crossing of third-party infrastructure, affecting the integrity of the third-party infrastructure over which the English Offshore Scheme is laid. The scour assessments conducted as part of the marine physical processes assessment, **Volume 1, Part 3 Chapter 18: Coastal and Marine Physical Processes** indicate that scour is not expected beyond the immediate vicinity of the cables or cable crossings and will be minor and therefore will not be affected by stability or integrity issues. Furthermore, the design of the crossings will take account of any potential for scour. The **sensitivity** of the receptor is **high**, and the **magnitude** of impact has been assessed as **negligible**, as it is considered that the receptors are tolerable to any minor changes. Therefore, the **significance** of the effect has been assessed as **Minor and Not Significant**.
- 25.10.13 There is the potential for the physical presence of associated infrastructure to restrict third party cable and pipeline maintenance activity. Cable routeing and design have sought to minimise and avoid interaction with third party cables and pipelines, with the exception of crossing points. Crossing Agreements will be agreed with asset owners with provisions for access during periods of maintenance. Given the infrequency of required maintenance visits / surveys and that cable repairs are likely to be minimal during the operational life of the cables, the **magnitude** of effect has been assessed **negligible.** Combined with the **high sensitivity** of the receptor, the **significance** of the effect has been assessed as **Minor and Not Significant.**

Decommissioning

25.10.14 Exact decommissioning arrangements for the English Offshore Scheme within territorial waters will be detailed in an Initial Decommissioning Plan, which will be drawn up and agreed with The Crown Estate. Any impacts arising from the decommissioning process will be the subject of future assessment, once the nature of the activities is understood. However, no impacts greater than those assessed during the construction phase are anticipated. Once decommissioned, the development is not expected to have any on-going impacts on other marine users.

25.11 Preliminary Assessment of Interaction with Other Marine Users – MOD

All Phases of the English Offshore Scheme

- **25.11.1** Other marine users (MOD) could be affected by:
 - Interaction with Aircraft utilising the practice and exercise areas.
- 25.11.2 As a result of the activities associated construction, operation and decommissioning of the English Offshore Scheme, there is the potential for construction vessels to interaction with low flying military aircraft utilising the airspace above the English Offshore Scheme.
- 25.11.3 The MOD and RAF require unimpeded access to their practice and exercise areas as a matter of national security and therefore have a **high sensitivity**. Given that these activities are, however, planned, take place periodically, and notification (through NOTAM) is required prior to activities taking place, the **magnitude** of effect has been assessed as **negligible**. The **significance** of the effect has therefore been assessed as **Minor and not significant**.

25.12 Preliminary Assessment of Interaction with Other Marine Users – Recreational Users

- **25.12.1** During construction and operation, other marine users such as swimmers, scuba divers and recreational sailing, and recreational anglers could be affected by:
 - Restriction of access to recreational areas; or
 - Changes to water clarity.
- **25.12.2** During the construction phase, there is the potential for recreational users to be displaced or access restricted to their usual recreational areas. There are two bathing waters within, or within close proximity to the draft Order Limits; Huttoft and Marsh Yard (previously Moggs Eye) and Anderby Creek, and a further two within 10 km; Mablethorpe Town and Sutton-on-Sea. Access to the bathing water may be temporarily disrupted during the installation of the trenchless solution at the landfall for safety reasons and during the subsequent cable pull-in. Restrictions will be short term in nature, and given the alternative locations available, the **sensitivity** of the receptor is assessed to be **medium.** Once construction works are completed, no restrictions will remain, and therefore, the **magnitude** has been assessed as **negligible.** The **significance** of the effect on recreational users has been assessed as **Minor** and **Not Significant.**
- 25.12.3 Boat and shore-based recreational angling activities could be impacted by general disruption, as a result of construction activity at the Anderby Creek Landfall or in the draft Order Limits. Most recreational vessels operate in the nearshore area and given the distance from shore for most of the English Offshore Scheme, interaction is considered unlikely. Any disruption is anticipated to be temporary and localised. The **magnitude** of the effect is therefore considered to be **low** and combined with the **negligible sensitivity** the **significance** of the effect on recreational angling is anticipated to be **Negligible** and **Not Significant**.
- 25.12.4 The assessment of water quality conducted as part of the marine physical processes assessment (**Volume 1, Part 3, Chapter 18: Coastal and Marine Physical**

processes) indicates that water quality at the Anderby Creek Landfall will not be affected by the installation of the trenchless solution or cable pull-in even in the worst case of punching out at Mean Low Water Springs (MLWS). The **sensitivity** of the receptor is considered **medium** given that recreational users will have alternative locations to use. The **magnitude** of the impact is considered **low**. The **significance** of the effect has been assessed as **Minor and Not significant**.

25.12.5 During operation, the likelihood of requiring maintenance at the Anderby Creek Landfall or within the English Offshore Scheme is considered low; works, including cable repair (excluding emergency works) and laying of associated cable protection, would be short term and temporary and very localised. Temporary increases in suspended sediment concentrations may be anticipated for cable repair and maintenance activities, max distance over which suspended sediment concentrations exceed 10 mg/l is 8 km out to KP10. Past KP10, maximum distance reduces to between 2.7 and 6.5 km, however, these will be short term and temporary. The sensitivity of the receptor is medium given that recreational users will have alternative locations to use. The magnitude of the impact is low. The significance of the effect has been assessed as Minor and Not significant.

25.13 Preliminary Assessment of Occupancy of the Seabed by Cables (Below Seabed)

- 25.13.1 During operation, the presence of the cables may restrict the future use of the seabed by other marine users.
- 25.13.2 In consideration of the future baseline, all projects currently in planning have been taken into consideration within the design of the English Offshore Scheme, i.e., cable separation distance maintained, and infrastructure crossings are according to guidelines. It is likely that new projects would arise within the study area beyond those which are currently noted. It would be on the onus of the third party developers to take the English Offshore Scheme into consideration with their consideration of options and design. Engagement will be undertaken with owners and operators of assets to ensure all future developments can coexist.
- 25.13.3 The Applicant is seeking consent for the minimum area required for installation of cables and would engage with future developers to agree crossing agreements for their assets as appropriate and in line with relevant legislation and guidance.
- 25.13.4 The **sensitivity** and **magnitude** for these receptors have been assessed as **low**, and the **significance** of the effect has been assessed as **Minor and Not Significant**; there will be a change to pre-project conditions, however, future developments can continue with appropriate agreements in place.

25.14 Preliminary Assessment of Occupancy of the Seabed by External Cable Protection (On Seabed)

- 25.14.1 During operation, the presence of the rock protection may restrict the future use of the seabed by other marine users.
- 25.14.2 In consideration of the future baseline, all projects currently in planning have been taken into consideration within the design of the English Offshore Scheme, i.e., cable separation distance maintained, and infrastructure crossings are according to guidelines. It is likely that new projects would arise within the study area beyond

those which are currently noted. It would be on the onus of the third party developers to take the English Offshore Scheme into consideration with their consideration of options and design. Engagement will continue with owners and operators of assets to ensure all future developments can coexist.

- 25.14.3 The Applicant is seeking consent for the minimum area required and will only place cable protection where required.
- 25.14.4 The **sensitivity** and **magnitude** for these receptors have been assessed as **low**, and the **significance** of the effect has been assessed as **Minor and Not Significant**; there will be a change to pre-project conditions, however, future developments can continue with appropriate agreements in place.
- 25.14.5 In line with the Marine Works (EIA) Regulations 2007 (Ref. 25.18), all future developments would be subject to their own Environmental Impact Assessments. In addition, there is a requirement to seek crossing agreements, as appropriate. The crossing agreements will ensure the ability of a cable/pipeline operator to access their cable/pipeline throughout all phases of the English Offshore Scheme, which would involve close communication and planning between parties to minimise potential disruption.

25.15 Transboundary Effects

25.15.1 The English Offshore Scheme lies wholly in UK waters. Given the approximate distance of 130 km to the UK EEZ boundary, there is no potential for overlap or proximity to other marine users in transboundary nations. Reference should also be made to **Section 5.8 of Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology**. Separate applications will be submitted to the relevant Statutory Authority for the Scottish Schemes. Where the English and Scottish Schemes meet, collaborative Environmental Impact Assessments will ensure impacts are fully assessed.

25.16 Further Work to be Undertaken

25.16.1 The information provided in this PEIR is preliminary; the final assessment of potential significant effects will be reported in the ES. This section describes the further work to be undertaken to support the other marine users assessment presented in the ES, which includes the assessment of the effect of the temporary quay if taken forward.

Baseline

- 25.16.2 No survey work is proposed in relation to other marine users; however, regular review of data sources will be undertaken to ensure that any new projects arising within the study area will be included within the final assessment in the ES. In addition, ongoing engagement with stakeholders and other marine users will continue following the PEIR statutory consultation to inform the ES.
- 25.16.3 With respect to the temporary quay, if the option is taken forward, further information would be gathered in respect to how other marine users use this area to support the assessment within the ES.

Assessment

- 25.16.4 The assessments undertaken for the PEIR will be reviewed following stakeholder consultation, feedback and further design refinement. The following assessments will then either be updated or undertaken where they have not been undertaken for this PEIR:
 - updated assessment of other marine users incorporating any new data.
- 25.16.5 Assessment of effects associated with the temporary quay will be provided within the ES should the option be taken forward. The following effects are proposed to be included within the assessment.
 - Interaction with other marine users Recreational users such as anglers
 - Effects to be assessed include disruption or displacement to recreational areas
- 25.16.6 Effects relating to interaction with vessels using the River Nene will be assessed in **Volume 1, Part 3, Chapter 23: Shipping and Navigation.**

Further Environmental Measures

25.16.7 No further environmental measures are proposed above the standard measure mentioned above. This will continue to be reviewed post PEIR.

Bibliography

REF 25.1 UK Government (2008). The Planning Act 2008. Available at: <u>https://www.legislation.gov.uk/ukpga/2008/29/contents</u> [Accessed on 24/04/2025]

REF 25.2 ESCA (2023) European Subsea Cables Association. Available at: <u>https://www.escaeu.org/ European Subsea Cables Association (ESCA)</u> [Accessed on 27/03/2025]

REF 25.3 ESCA, (2016) The Proximity of Offshore Renewable Energy Installations & Submarine Cable Infrastructure in UK Waters. Available at : <u>https://www.escaeu.org/guidelines/</u> <u>Guidelines</u>[Accessed on 27/03/2025]

REF 25.4 ICPC, (2023) International Cable Protection Committee. Available at: <u>https://www.iscpc.org/publications/recommendations/ ICPC Recommendations</u> [Accessed on 27/03/2025]

REF 25.5 The Crown Estate (2021) CCUS & OFFSHORE WIND OVERLAP STUDY REPORT Study Findings and Recommendations. Available at: <u>https://www.thecrownestate.co.uk/media/3898/ccus-offshore-wind-overlap-study-report.pdf</u> <u>CCUS & OFFSHORE WIND OVERLAP STUDY REPORT</u> [Accessed on 27/03/25]

REF 25.6 The Crown Estate (2023). Search our assets. Available at: <u>https://www.thecrownestate.co.uk/en-gb/what-we-do/asset-mapAsset map | Asset map [Accessed on 28/03/2025]</u>

REF 25.7 KIS-ORCA (2024) Available at : <u>https://kis-orca.org/map/ Map | KIS-ORCA</u> [Accessed on 28/03/2025]

REF 25.8 NSTA (2023) Offshore Oil and Gas Activity Interactive map. Available at: <u>https://www.arcgis.com/apps/webappviewer/index.html?id=f4b1ea5802944a55aa4a9df0184205</u> <u>a5 Offshore Activity</u> [Accessed on 28/03/2025]

REF 25.9 EmodNet (2023). Human Activities Interactive Map. Available at: https://www.emodnet-humanactivities.eu/view-data.php [Accessed on 28/03/2024]

REF 25.10 RYA (2019) UK Coastal Atlas of Recreational Boating. Available at: <u>uk-coastal-atlas-of-recreational-boating</u> [Accessed on 28/03/2025]

REF 25.11 divemap: Charting the best and worst of British diving [Accessed 31/03/25]

REF 25.12 Gov.uk (2023) List of current bathing waters. Available at: <u>https://www.gov.uk/government/publications/bathing-waters-list-of-designated-waters-in-england/list-of-current-bathing-waters</u> List of current bathing waters - GOV.UK [Accessed on 28/03/2024]

REF 25.13 Seasearch, (2023). Seasearch Data. Available at: <u>https://www.seasearch.org.uk/data</u> <u>Seasearch - Data</u> [Accessed on 28/03/2025]

REF 25.14 Nicolle, W., McAleenan, B., & Birkett, E. (2020). The Future of the North Sea. Maximising the contribution of the North Sea to Net Zero and Levelling Up. <u>Future-of-the-North-Sea.pdf</u> . [Accessed on 28/03/2025]

REF 25.15 Convention on the International Regulations for Preventing Collisions at Sea (1972) (COLREGs), International Maritime Organzation. Available at: <u>Convention on the International</u> <u>Regulations for Preventing Collisions at Sea, 1972 (COLREGs)</u> [Accessed 28/03/2025]

REF 25.16 International Convention for the Prevention of Pollution from Ships (the MARPOL Convention 73/78) and assocaited Annexes (1973). International Maritime Organization. Available at: International Convention for the Prevention of Pollution from Ships (MARPOL) [Accessed 28/03/2025]

REF 25.17 International Convention for the Safety of Life at Sea (SOLAS) (1974). International Maritime Organization. Available at: <u>INTERNATIONAL CONFERENCE ON SAFETY OF LIFE</u> <u>AT SEA, 1974</u> [Accessed 28/03/2025]

REF 25.18 UK Government (2017). The Marine Works (Environmental Impact Assessment) (Amendment) Regulations 2017. Available at: https://www.legislation.gov.uk/uksi/2017/588/contents/made [Accessed 28/03/2025]

National Grid plc National Grid House, Warwick Technology Park, Gallows Hill, Warwick. CV34 6DA United Kingdom

Registered in England and Wales No. 4031152 nationalgrid.com