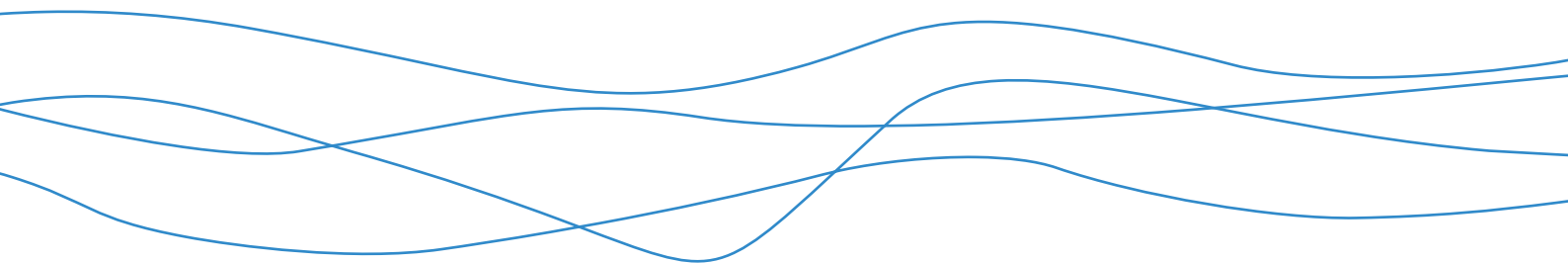




Bowdun Offshore Wind Farm, Offshore EIA Report

Volume 3, Technical Appendix 4.4: Cumulative
Effects Assessment – Screening

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Glossary

Defined term	Definition
Applicant (the)	Bowdun Offshore Wind Farm Limited (BOWFL).
Array Area	The Array Area is the area in which the Offshore Generation Assets will be located.
Bowdun Offshore Wind Farm Limited (BOWFL)	A Special Purpose Vehicle (SPV) (legal entity) for the purpose of developing the Project. BOWFL are the Applicant for the Offshore Application.
Contracts for Difference (CfD)	The UK Government's main mechanism for supporting low-carbon electricity generation.
Cumulative Effects	The effects of the Proposed Development assessed together with effects from the Onshore Infrastructure forming the Project as well as one or more different projects on the same receptor/resource.
Effect	Term used to express the consequence of an impact (i.e. the result of change or changes on specific environmental resources or receptors). The significance of an effect is determined by correlating the magnitude of the impact with the importance, or sensitivity of the receptor or resource in accordance with defined significance criteria.
Environmental Impact Assessment (EIA)	Process for the assessment of likely significant environmental effects of a project on the physical, biological and human environment during construction, Operation and Maintenance (O&M) and decommissioning.
Environmental Impact Assessment Regulations (EIA Regulations)	Terminology used in this Offshore EIA Report to refer to three sets of regulations: • The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017; • The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017; and • The Marine Works (Environmental Impact Assessment) Regulations 2007.
Exclusive Economic Zone (EEZ)	An area from the outer limit of the territorial sea up to 200 nm from the coastal baseline, over which a sovereign state has rights regarding marine resources.
Export Cable Corridor	The area seaward of Mean High Water Springs (MHWS) which connects the Array Area with the Landfall within which the Offshore Export Cables will be installed.
Impact	A change caused by an action that occurs during a project's lifetime.
Inter-Array Cables (IAC)	Cables which link the Wind Turbines to each other and with the Offshore Substation Platforms (OSPs).
Interconnector Cables	Cables which will connect individual OSPs to each other to provide redundancy against cable failure elsewhere.
Offshore Application	Term used to refer to the applications associated with the Proposed Development. The Applicant will apply for: • A Section 36 Consent under the Electricity Act 1989; and • Marine Licence(s) under Marine Scotland Act 2010 and Marine and Coastal Access Act 2009.

Defined term	Definition
Offshore Environmental Impact Assessment (EIA) Report (hereafter, 'Offshore EIA Report')	Document prepared to report the findings of the EIA for the Proposed Development and produced in accordance with the EIA Regulations. The Offshore EIA Report is submitted to support the Offshore Application for the Proposed Development, and to comply with EIA Regulations.
Offshore Export Cable	Subsea cables used to transmit electricity generated offshore by the Wind Turbines from the OSPs to shore. The Transition Joint Bay (TJB) is the location where the Offshore Export Cables terminate, and the onshore cabling begins.
Offshore Generation Assets	The infrastructure of the Proposed Development required to generate electricity comprising of the Wind Turbines, Wind Turbine foundations and associated infrastructure (e.g. IACs).
Offshore Infrastructure	All of the Offshore Infrastructure associated with the Proposed Development that is located seaward of MHWS, comprising the Offshore Generation Assets and the Offshore Transmission Assets.
Offshore Substation Platform(s) (OSPs)	OSPs comprise the support structure, topside and electrical components used for collecting and/or converting electricity generated by the Wind Turbines for transmission by the Offshore Export Cables.
Offshore Transmission Assets	The infrastructure of the Proposed Development required to transmit the generated electricity comprising of the OSPs, Offshore Export Cables and associated infrastructure up to MHWS.
Onshore Transmission Assets	The transmission infrastructure associated with the Project above MLWS which is subject to the Planning Permission in Principle (PPP) Application submitted to Aberdeenshire Council (REF: APP/2025/1952).
Operation and Maintenance (O&M)	The phase of the Proposed Development following completion of construction. This phase of development includes routine inspections, repairs and replacement of infrastructure and equipment (including Interconnector Cables and IACs), Scour Protection replenishment or replacement, major component replacement, painting and/or other coating works, removal of marine growth, and replacement of access ladders.
Pathway	Describes the means or route by which a receptor (such as the seabed) can be affected by an identified impact source (such as Wind Turbine foundations).
Pre Application Consultation (PAC)	Pre-Application Consultation with communities and stakeholders with regard to the consent applications for the Project that meets the requirements of Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013.
Project (the)	An overarching term for the Bowdun Offshore Wind Farm (Bowdun OWF) comprising the offshore and onshore infrastructure required to generate and transmit electricity from the Array Area to the onshore Grid Connection Point (GCP). The Project includes the Offshore Generation Assets, the Offshore Transmission Assets and the Onshore Transmission Assets.
Proposed Development	Term used to define the Offshore Infrastructure associated with the Project seaward of MHWS for which consent is being sought. Further details of the parameters are included in Volume 1, Chapter 3: Project Description.

Defined term	Definition
Sectoral Marine Plan (SMP)	A plan developed by the Scottish Government which provide the strategically planned spatial footprint for offshore wind development in Scotland.
Study Area	For each environmental topic, the baseline environment will be characterised, and the potential environmental impacts will be described within a topic-specific study area. Specific study areas are defined for each topic and are based on the maximum spatial extent across which potential impacts of the Project may be experienced by the relevant receptors (i.e. Zone of Influence).
Temporal Overlap	The time period during which the effects of multiple projects occur simultaneously.
Thistle Wind Partners (TWP)	Company established for the development of the Project.
Wind Turbines	Structures comprising of a tubular tower, rotor blades, and a nacelle which houses the Wind Turbine generator.
Zone of Influence	The geographical area within which the Proposed Development may have environmental effects.

Acronyms

Acronym	Definition
CEA	Cumulative Effects Assessment
CfD	Contracts for Difference
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EMODnet	European Marine Observation and Data Network
FID	Final Investment Decisions
IAC	Inter-Array Cables
MHWS	Mean High Water Springs
NSTA	North Sea Transition Authority
O&M	Operation and Maintenance
OSP	Offshore Substation Platform
SMP	Sectoral Marine Plan
ZoI	Zone of Influence

Table of Units

Units	Definition
CO ₂	Carbon Dioxide
km	Kilometre
km ²	Square kilometre
kV	Kilovolt
kW	Kilowatt
nm	Nautical mile
m	Metre
MW	MegaWatt

1 Introduction

- 1.1.1 This Cumulative Effects Assessment (CEA) – Screening Technical Report describes the projects that may overlap spatially and temporally with the Offshore Infrastructure associated with the Bowdun Offshore Wind Farm Project (hereafter referred to as the ‘Proposed Development’), as required in accordance with the Environmental Impact Assessment (EIA) Directive (2011/92/EU, as amended by Directive 2014/52/EU) and the EIA Regulations (for further information, see Volume 1, Chapter 4: Environmental Impact Assessment Methodology).
- 1.1.2 The Proposed Development covers the Option to Lease Area (OLA) located in the E3 Plan Option Area (POA), detailed in the Sectoral Marine Plan (SMP) for Offshore Wind Energy (Scottish Government, 2020), and the Export Cable Corridor. The Array Area, located 38 km off the Aberdeenshire coast at its closest point, is an area of 187 km² and will comprise fixed Wind Turbines, Inter-Array Cables (IACs), Offshore Substation Platforms (OSPs), Interconnector Cables and any necessary scour/cable protection. The Export Cable Corridor consists of up to three Offshore Export Cables which make Landfall at Benholm, Aberdeenshire.
- 1.1.3 This CEA – Screening Technical Report underpins the CEA for the Proposed Development and describes the process undertaken to identify projects that could potentially result in cumulative effects. This process, known as ‘screening’, was carried out by conducting an online search to gather data on projects located within a defined distance of the Proposed Development. This screening exercise identified the projects that could potentially result in cumulative effects on the relevant topic receptors during the construction, Operation and Maintenance (O&M), and decommissioning phases of the Proposed Development. This information is then used to inform the CEA for each topic in Volume 2, Chapters 7 to 22.
- 1.1.4 The information from this technical report informs all the CEA sections and the assessment of the likely significant cumulative environmental effects of the Proposed Development. This report accompanies the methodology as described in Volume 1, Chapter 4: Environmental Impact Assessment Methodology to support the consent application for the Proposed Development.
- 1.1.5 The completed CEA list for the Proposed Development is presented in Annex A, with accompanying figures in Annex B.
- 1.1.6 The aim of this CEA – Screening Technical Report is to:
- describe the methodology used to identify and screen projects;
 - identify and describe the long list of projects; and
 - refinement of the long list of projects to take forward for CEA.

2 Methodology

- 2.1.1 Cumulative effects may arise from the combined effects of the Proposed Development and other projects. According to CEA guidance (Scottish Government, 2017), such effects may result from the nature, size, or location of these projects and can occur at any stage during a proposed development's lifecycle.
- 2.1.2 The Applicant's approach to CEA was detailed in the Scoping Report (Bowdun Offshore Wind Farm Limited, 2024). This section provides further information on the approach used in this Offshore EIA Report.
- 2.1.3 As a part of the CEA, determining which projects have the potential to interact with the Proposed Development to create cumulative effects is an important step at the beginning of the assessment. To prevent repetition of the methodology described in Volume 1, Chapter 4: Environmental Impact Assessment Methodology, the approach has been summarised here. Within the CEA process, there is a:
- Screening Stage; and
 - Assessment Stage.

2.2 Limitations

- 2.2.1 It is important to recognise that despite rigorous efforts to ensure data quality and accuracy, information available in the public domain can change over time. To address this, a cut-off period has been implemented: cumulative projects to be assessed quantitatively are included up to six months before the submission of the Offshore EIA Report, and those to be assessed qualitatively are included up to three months prior. Beyond these cut-off periods, no new or updated information is considered in the CEA, which may limit the inclusion of the most recent data.

2.3 Screening Stage

CEA Search Area

- 2.3.1 The CEA Search Area is dependent on the project type that has been considered, as well as considering the Zone of Influence (Zols)/CEA Study Areas that are taken forward as part of the assessments in Volume 2, Chapters 7 to 22 as shown in Table 2.2 (figures can be found in Annex B). The minimum distance for project types (excluding energy projects) is taken to be 100 km, as this is considered a precautionary distance at which effects from the relevant project types could occur (as shown in Table 2.2). When considering offshore energy projects, the CEA Search Area has been taken from Volume 2, Chapter 10: Marine Mammals, Volume 2, Chapter 11: Offshore Ornithology and Volume 2, Chapter 18: Socio Economics, Tourism and Recreation, and considers all offshore energy projects within the North Sea and channel waters, and the Scottish Exclusive Economic Zone (EEZ).

Data Sources

2.3.2 All projects identified seaward of the Mean High Water Springs within the CEA Search Area were identified through a desktop study of the following data sources:

- The Scottish Government' Marine Directorate (www.marine.gov.scot);
- Crown Estate Scotland website (www.crownestatescotland.com);
- The Crown Estate website (www.thecrownestate.co.uk)
- The Planning Inspectorate National Infrastructure Planning (<https://national-infrastructure-consenting.planninginspectorate.gov.uk>)
- Marine Management Organisation (<https://environment.data.gov.uk>);
- Centre for Environment, Fisheries, and Aquaculture Science (<https://data.cefas.co.uk>);
- European Marine Observation and Data Network (EMODnet) data (www.emodnet.ec.europa.eu);
- North Sea Transition Authority (NSTA) website (www.nstauthority.co.uk);
- National Air Traffic Surveys (NATS) (www.nats.aero);
- Ports and Harbours of the UK website (www.ports.org.uk);
- Oceanwise website (www.oceanwise.eu); and
- developer and project websites.

Data Confidence

2.3.3 Confidence in data is considered when screening projects. Those with insufficient publicly available details are excluded from the CEA, as they cannot reliably contribute. Renewable UK supports this approach, stating that "*the focus of the assessment will therefore be on those projects or activities for which sufficient relevant information exists*" (Renewable UK, 2013).

2.3.4 A three-point scale is used to categorise data confidence (Table 2.1). Projects with medium or high data confidence were included in the CEA, while those with low confidence were excluded.

Table 2.1: Data Confidence Criteria

Data Confidence	Criteria
High	Projects with an EIA Report or equivalent document, with a good level of detail to complete the CEA. Data that has been peer-reviewed or is industry-standard third-party quantitative, semi-quantitative or qualitative data. Detailed project parameters are published in the public domain and confirmed as being accurate by the Applicant.
Medium	Projects with an EIA Report or equivalent document, with a moderate level of detail to complete the CEA. Third-party data supplied to or obtained by the Applicant, which has not been subject to peer review. Peer-reviewed and grey literature that is considered relevant.
Low	Projects with a lack of robust information. Projects that may be developed in future but currently lack specific information.

Long List

- 2.3.5 The Screening Stage involves identifying foreseeable projects, including onshore elements of the Project, that may interact with the Proposed Development to result in cumulative effects during each phase (construction, O&M, and decommissioning) (see Section 4.9 of Volume 1, Chapter 4: Environmental Impact Assessment Methodology for classification of foreseeable projects). The systematic methodology screens projects based on spatial and temporal extent.
- 2.3.6 The CEA long list of projects is up to date as of the end of January 2026 and contains projects following the methodology defined in Volume 1, Chapter 4: Environmental Impact Assessment Methodology. Any projects that were outside the spatial and temporal extent defined were not included.

Spatial Extent

- 2.3.7 To ensure a comprehensive identification of potential projects for the CEA, the long list of projects was defined based on the spatial extent over which cumulative effects are likely to occur, created on the criteria defined in Table 2.2 (figures can be found in Annex B).
- 2.3.8 A 100 km buffer from the Proposed Development is applied for project types (excluding energy projects) to ensure that all potentially relevant projects are captured before the search area is refined based on topic Zois or CEA Study Areas. The 100 km default offers a precautionary and proportionate long list. It is at the Topic Assessment Stage (Section 2.4), where topic-specific Zois or CEA Study Areas are used to tailor the spatial extent appropriately for CEA.

Table 2.2: Cumulative Effects Search

Project type	CEA search area extent	Spatial Justification
Aggregate and disposal, including dredging	Up to 100 km from the Proposed Development.	This range presents a precautionary maximum distance at which effects from aggregate and disposal activities, including dredging, could occur. Given the nature of aggregate and disposal projects, the likely cumulative effect is an increase in suspended sediments. Projects located outside the tidal excursion zone are unlikely to have a cumulative effect. This is because the tidal excursion distance represents the approximate distance over which water (or a section of plume with elevated suspended sediment concentration) is carried during one flood or ebb tide. Areas beyond this distance and footprint are unlikely to experience any measurable change in suspended sediment concentration from a sediment plume. Volume 2, Chapter 7: Physical Processes estimates the maximum tidal excursion distance to be approximately 11 km from the Proposed Development Site Boundary. Therefore, to ensure a precautionary approach in the CEA, projects within a 100 km radius have been considered for the long list. Projects beyond 100 km have no spatial overlap and therefore no conceptual overlap.
Aquaculture	Up to 100 km from the Proposed Development.	This range presents a precautionary maximum distance at which effects from commercial fishery activities could occur. Likely cumulative effects associated with aquaculture sites are increases in sedimentation. Sediment is unlikely to travel greater distances than the tidal excursion (Volume 2, Chapter 7: Physical Processes). Therefore, similar to aggregate and disposal projects, a precautionary 100 km radius has been considered for the long list. Projects beyond 100 km have no spatial overlap and therefore no conceptual impact pathway.

Project type	CEA search area extent	Spatial Justification
Cables and pipelines	Up to 100 km from the Proposed Development.	This range presents a precautionary maximum distance at which effects from cable and pipeline activities could occur. The type of project associated with cables and pipelines may result in the likely cumulative effect of a reduction to fishing grounds or displacement from fishing grounds, which is caused directly by the 500 m safety exclusion zones implemented by a project. Volume 2, Chapter 13: Commercial Fisheries describes a safety exclusion zone of 500 m. Therefore, to ensure a precautionary approach in the CEA, projects within a 100 km radius have been considered for the long list. Projects beyond 100 km have no spatial overlap and therefore no conceptual impact pathway.
Coastal marine licences (non-EIA Marine Licences)	Up to 100 km from the Proposed Development.	This range presents a precautionary maximum distance at which effects from coastal marine licence activities could occur. Non-EIA Marine Licenced coastal projects, similar to cables and pipelines, are likely (if required) to have a 500 m safety exclusion zone around them. Therefore, to ensure a precautionary approach in the CEA, projects within a 100 km radius have been considered for the long list. Projects beyond 100 km have no spatial overlap and therefore no conceptual impact pathway.
Military, aviation and radar including Ministry of Defence (MOD) Practice and Exercise Areas (PEXAs)	Up to 100 km from the Proposed Development.	This range presents a precautionary maximum distance at which effects from military, aviation and radar activities could occur. The type of project associated with military, aviation and radar may result in the likely cumulative effect of a reduction to marine users in a navigable area. This could be caused by a combination of military, aviation and radar exclusion zones in combination with a 500 m safety exclusion zone implemented by a project. Volume 2, Chapter 13: Commercial Fisheries and Volume 2, Chapter 14: Shipping and Navigation describes a safety exclusion zone of 500 m. Therefore, to ensure a precautionary approach in the CEA, projects within a 100 km radius have been considered for the long list. Projects beyond 100 km have no spatial overlap and therefore no conceptual impact pathway.

Project type	CEA search area extent	Spatial Justification
Offshore energy, including wave and tidal energy, and carbon capture and storage	All offshore energy developments in the North Sea, English Channel and the Scottish EEZ.	This range presents a precautionary maximum distance at which effects from offshore energy activities could occur. Offshore wind farms are considered the most likely projects to result in cumulative effects with the Proposed Development. This is primarily due to potential effects on marine mammal and ornithological receptors. As these receptors are not necessarily confined to a specific distance and are highly mobile, a precautionary approach has been taken by including all offshore energy developments within the North Sea, English Channel, and the Scottish EEZ.
Oil and gas	Up to 100 km from the Proposed Development.	This range presents a precautionary maximum distance at which effects from oil and gas activities could occur. Under The Offshore Installations (Safety Zones) Order 2019 a safety zone of 500 m is implemented around each oil and gas installation. Therefore, the likely cumulative effect is a reduction to marine users in a navigable area. This could be caused by the above safety zone in combination with a 500 m safety exclusion zone implemented by a project. Volume 2, Chapter 13: Commercial Fisheries and Volume 2, Chapter 14: Shipping and Navigation describes a safety exclusion zone of 500 m. Therefore, to ensure a precautionary approach in the CEA, projects within a 100 km radius have been considered for the long list. Projects beyond 100 km have no spatial overlap and therefore no conceptual impact pathway.
Ports and harbours	Up to 100 km from the Proposed Development.	This range presents a precautionary maximum distance at which effects from ports and harbours could occur. Under the Harbours Act 1964, the statutory harbour authority is able to implement safety measures within their harbour extent. This may have the potential to cumulatively exclude marine users from an area in combination with a project's 500 m safety exclusion zone. Volume 2, Chapter 13: Commercial Fisheries and Volume 2, Chapter 14: Shipping and Navigation describes a safety exclusion zone of 500 m. Therefore, to ensure a precautionary approach in the CEA, projects within a 100 km radius have been considered for the long list. Projects beyond 100 km have no spatial overlap and therefore no conceptual impact pathway.

Temporal Extent

- 2.3.9 In addition to the spatial extent to identify potential projects for the CEA, the long list of projects was defined based on the temporal extent over which cumulative effects could occur based on the assumptions provided below.

Assumptions

- 2.3.10 The long list was defined in accordance with the following key assumptions:
- the commencement of the construction phase for the Proposed Development has been assumed as 2031, with a construction phase of up to five years;
 - biological receptors - seabed preparation activities for the Proposed Development are scheduled to begin in Q2 2031, with commissioning expected to be completed in Q1 2036. An additional year has been added on either side of the construction period to address NatureScot's comments on the Marine Mammals Section of the Offshore Scoping Report - *'The Scottish Ministers acknowledge the approach to the cumulative assessment noted in Section 11.9 of the Scoping Report. The Scottish Ministers highlight the NatureScot EIA response and advise that consideration should be given for a year on either side of the Proposed Development, focusing on both the temporal and spatial overlap'* (MD-LOT, 2024). Therefore, the CEA long list considers projects within the construction period of 2030-2037 (eight years), with an operational period of up to 30 years for biological receptors;
 - human receptors - similar to the biological receptors, except for the inclusion of the marine mammals' allowance of one year on either side of the construction programme. Therefore, all projects will be considered within the construction period of 2031-2036 (six years) and with an operational period of up to 30 years;
 - any licence/lease/consent which expires prior to construction (i.e. expired before 2031) has been excluded as there is no temporal overlap with the Proposed Development;
 - all licence/lease/consent applications where there has been no progress in development in the last five years (i.e. before 2020) have been excluded, as it is assumed that these projects are not likely to proceed;
 - where construction has been described in a project's Scoping Report or EIA Report, this will be taken as the construction period for the purposes of the CEA;
 - where there is no information on the O&M period of an offshore wind farm development, it is assumed to have a 25-year consent period. Similarly, decommissioning is assumed to take two years; and

- coastal development projects submitted under the Town and Country (Scotland) Planning Act 1997 before 2022 have been excluded from the list, as any planning permissions granted would now have lapsed¹ due to the standard three-year validity period from the date of the decision notice, unless development has commenced (Scottish Government, 2019).

Refinement

- 2.3.11 To refine the long list, information on all projects, including their locations (distance from the Array Area and Export Cable Corridor) and, where feasible, the timing and nature of activities (including phase durations) was collated. This allowed the assessments of Volume 2, Chapters 7 to 22 to screen for potential temporal and spatial overlaps of relevant effects with the Proposed Development.
- 2.3.12 Publicly available information (planning databases and internet searches) and planning documents (EIA Reports, Habitats Regulations Appraisal (HRA) Reports, and licence applications) were used to gather details on project status, activities, and schedules.

2.4 Assessment Stage

- 2.4.1 The CEA Assessment Stage methodology will follow the EIA Methodology set out in Volume 1, Chapter 4: Environmental Impact Assessment Methodology and has been summarised here.
- 2.4.2 Following the Screening Stage, a shortlist of projects was compiled for further assessment and is referenced within each topic chapter. A tiered approach was then applied to the CEA, taking into account each project's stage of development, level of certainty, and potential to cause significant environmental effects. These tiers are:
- Tier 1: Onshore elements of the Project.
 - Tier 2: Projects with applications submitted, consented, under construction, or operational.
 - Tier 3: Projects with a scoping report or scoping opinion.
 - Tier 4: Reasonably foreseeable projects with Crown Estate Scotland/Crown Estate option or lease agreements.

Screening matrix

- 2.4.3 Table 2.3 details the screening criteria that were used by the topic authors during the topic screening. The colour coding displayed relates to that used in the CEA long list by technical authors to determine how they have screened each of the projects listed.

¹ Unless otherwise stated in the permission, development must commence within three years of the date of consent in accordance with the Town and Country (Scotland) Planning Act 1997. This document adopts the standard three-year period for consistency.

Table 2.3: Screening Criteria

Symbol	Criteria*
a	The project was included as part of the topic baseline with no anticipated impacts, therefore not considered within the CEA: Screened out.
b	Part of the baseline but has an ongoing impact and is therefore considered relevant to the cumulative effect assessment: Screened in.
c	Potential cumulative impact exists: Screened in.
d	No conceptual effect-receptor pathway: Screened out.
e	Low data confidence or availability (i.e. not in public domain): Screened out.
f	No physical effect-receptor overlap: Screened out.
g	No temporal overlap: Screened out.

* Note that this criterion is based on professional judgement and is topic dependent.

MD-LOT (2024). *Scoping Opinion – Bowdun Offshore Wind Farm*. Marine Directorate – Licensing Operations Team. Available at:
https://marine.gov.scot/sites/default/files/scoping_opinion_17.pdf. Accessed on: 01 May 2025.

Renewable UK (2013). *Cumulative Impact Assessment Guidelines: Guiding Principles for Cumulative Impacts Assessment in Offshore Wind Farms*. June 2013. Available at:
<http://www.nerc.ac.uk/innovation/activities/infrastructure/offshore/cumulative-impact-assessment-guidelines/>. Accessed on: 14 April 2025.

Scottish Government (2017). *Guidance on The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017*. Planning Circular 1/2017: Environmental Impact Assessment regulations. Published 16 May 2017. Available at: [The Need for EIA for Schedule 2 Development – Planning Circular 1/2017: Environmental Impact Assessment regulations – gov.scot \(www.gov.scot\)](#). Accessed on: 14 April 2025.

Scottish Government (2019). Planning (Scotland) Act 2019. Available at:
<https://www.legislation.gov.uk/asp/2019/13/notes/division/2/3/11/1>. Accessed on: 14 April 2025.

Scottish Government (2020). *Sectoral Marine Plan for Offshore Wind Energy*. 28 October 2020. Available at:
<https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2020/10/sectoral-marine-plan-offshore-wind-energy/documents/sectoral-marine-plan-offshore-wind-energy/sectoral-marine-plan-offshore-wind-energy/govscot%3Adocument/sectoral-marine-plan-offshore-wind-energy.pdf> Accessed on: 12 May 2025.

ANNEX A. CUMULATIVE EFFECTS PROJECTS

A1 Offshore Cumulative Effects Matrix – Offshore Energy

A1.1 Offshore Energy Temporal Screening Matrix

	Consenting/Pre-Construction
	Under Construction
	Operation and Maintenance
	Decommissioning

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Offshore Wind Farms																						
United Kingdom																						
Tier 1																						
Bowdun Onshore Infrastructure	The Onshore Infrastructure associated with the Project.	Thistle Wind Partners Limited	High	Application submitted but not yet determined																		
Tier 2																						
Aberdeen Offshore Wind Farm	Aberdeen Offshore Wind Farm consists of up to 11 turbines at a capacity of 96.8 MW.	The Crown Estate Scotland	High	Operational																		
Aspen Offshore Wind Farm	Floating offshore wind farm proposed for up to 1,000 MW and up to 72 wind turbines.	The Crown Estate Scotland	High	Application submitted but not yet determined																		
Awel y Môr Offshore Wind Farm	Up to 50 wind turbines with a capacity of 500 MW.	The Crown Estate	High	Consented																		
Ayre Offshore Wind Farm	Up to 1,000 MW with proposed up to 67 wind turbines.	The Crown Estate Scotland	High	Application submitted but not yet determined																		
Barrow Offshore Wind Farm	Barrow Offshore Wind Farm consists of up to 30 wind turbines at a capacity of 90 MW.	The Crown Estate	High	Operational																		
Beatrice Offshore Wind Farm	Beatrice Offshore Wind Farm consists of 84 wind turbines at a capacity of 588 MW.	The Crown Estate Scotland	High	Operational																		
Berwick Bank Wind Farm	Berwick Bank Offshore Wind Farm is proposed for up to 307 wind turbines with a capacity of up to 4,100 MW. Project lifetime of 35 years.	The Crown Estate Scotland	High	Consented																		
Blyth Demo Offshore Wind Farm Phase 1	Blyth Demonstration 1 consists of up to 5 wind turbines at a capacity of 41.5 MW.	The Crown Estate	High	Operational																		

											Construction window										
											Marine Mammals (and relevant biological topics)										
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Blyth Demo Phase 2 ²	Blyth Demonstration 2 is consented for up to 5 floating wind turbines at a capacity of 58.4 MW.	The Crown Estate	High	Consented/ Discontinued																	
Buchan Offshore Wind Farm	Floating offshore wind farm is proposed for up to 70 floating wind turbines at a capacity of 1,000 MW. Project lifetime of 35 years.	The Crown Estate Scotland	High	Application submitted but not yet determined																	
Burbo Bank	Burbo Bank Offshore Wind Farm consists of up to 25 wind turbines at a capacity of 90 MW.	The Crown Estate	High	Operational																	
Burbo Bank Extension	Burbo Bank Extension consists of up to 32 wind turbines at a capacity of 258 MW.	The Crown Estate	High	Operational																	
Caledonia Offshore Wind Farm North	The North Site is proposed for up to 77 wind turbines with up to 140 wind turbines across the two sites (North and South). Caledonia Offshore Wind Farm (North and South) has an indicative generation capacity of 2,000 MW with an anticipated 35 years operational lifespan. Additional information submitted to MD-LOT October 2025.	The Crown Estate Scotland	High	Application submitted but not yet determined																	
Caledonia Offshore Wind Farm South	The South Site is proposed for up to 78 wind turbines with up to 140 wind turbines across the two sites (North and South). Caledonia Offshore Wind Farm (North and South) has an indicative generation capacity of 2,000 MW with an anticipated 35 years operational lifespan. Additional information submitted to MD-LOT October 2025.	The Crown Estate Scotland	High	Application submitted but not yet determined																	
Cenos Offshore Windfarm	Proposed for up to 1,350 MW with up to 95 floating wind turbines.	The Crown Estate Scotland	High	Application submitted but not yet determined																	

² Project was 'consented' as part of the wider Blyth Demo project (along with phase 1) and has been considered at the CEA screening stage. However, based upon publicly available information, there are no plans to construct this phase, and no current programme is available. As such it has not been possible to consider the temporal overlap for this project in a meaningful way and has been screened out of further consideration, unless explicitly stated for individual topics (e.g. for ornithology as mortality numbers for the Blyth Demo (phase 1 and 2) has been included in PVA modelling).

					Construction window																
					Marine Mammals (and relevant biological topics)																
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Culzean Floating Offshore Wind Turbine Pilot Project	Culzean Floating Offshore Wind Turbine Pilot Project aims to deploy 1 floating wind turbine with a capacity of 3 MW, test floater and mooring system technologies. Marine licence variation granted in August 2025. Post consent plans currently being submitted.	The Crown Estate Scotland	High	Consented																	
Dogger Bank A (formerly Creyke Beck A)	Dogger Bank A Offshore Wind Farm is consented for up to 95 wind turbines with a capacity of 1,200 MW.	The Crown Estate	High	Under Construction																	
Dogger Bank B (Formerly Creyke Beck B)	Dogger Bank B Offshore Wind Farm is consented for up to 95 wind turbines with a capacity of 1,200 MW.	The Crown Estate	High	Under Construction																	
Dogger Bank C (Formerly Teesside A)	Dogger Bank C is consented for up to 95 wind turbines with a capacity of 1,200 MW.	The Crown Estate	High	Under Construction																	
Dogger Bank South East	Dogger Bank South East is proposed for up to 100 wind turbines at a capacity of 1,500 MW.	The Crown Estate	High	Application submitted but not yet determined																	
Dogger Bank South West	Dogger Bank South West is proposed for up to 100 wind turbines at a capacity of 1,500 MW.	The Crown Estate	High	Application submitted but not yet determined																	
Dudgeon Offshore Wind Farm	Dudgeon Offshore Wind Farm consists of up to 67 wind turbines at a capacity of 402 MW.	The Crown Estate	High	Operational																	
Dudgeon Extension	Dudgeon Extension Project is proposed for up to 30 wind turbines at a capacity of 402 MW.	The Crown Estate	High	Consented																	
East Anglia One	East Anglia One Offshore Wind Farm consists of up to 102 wind turbines at a capacity of up to 714 MW.	The Crown Estate	High	Operational																	
East Anglia One North	East Anglia One North Offshore Wind Farm is consented for up to 67 wind turbines at a capacity of 900 MW.	The Crown Estate	High	Consented																	
East Anglia Two	East Anglia Two Offshore Wind Farm is consented for up to 75 wind turbines at a capacity of 960 MW.	The Crown Estate	High	Consented																	
East Anglia Three	East Anglia Three Offshore Wind Farm consists of up to 100 turbines at a capacity of 1,400 MW.	The Crown Estate	High	Under Construction																	
Erebus Floating Wind Demo	Erebus Floating Wind Demonstration Project is proposed for up to 10 turbines at a capacity of 100 MW.	The Crown Estate	High	Consented																	

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Five Estuaries Offshore Wind Farm	Five Estuaries Offshore Wind Farm is proposed for up to 79 turbines at a capacity of 353 MW. Operational lifetime anticipated to be between 24 to 40 years.	The Crown Estate	High	Consented																		
Forthwind Demonstration Project	Forthwind Limited secured a Marine Licence and Section 36 Consent from Marine Scotland in March 2023 for a single turbine with an intended operational period of 25 years. Forthwind Limited submitted a Section 36 Consent Variation in February 2024 to modify the turbine parameters. Forthwind's Contracts for Difference (CfD) was terminated in April 2024. Construction programme and O&M period unknown.	The Crown Estate Scotland	High	Consented																		
Galloper	Galloper Offshore Wind Farm consists of up to 56 turbines at a capacity of 353 MW.	The Crown Estate	High	Operational																		
Greater Gabbard	Greater Gabbard Offshore Wind Farm consists of up to 140 turbines at a capacity of 504 MW.	The Crown Estate	High	Operational																		
Green Volt Offshore Wind Farm (INTOG Site 6 Flotation Energy)	Green Volt Offshore Wind Farm is proposed for up to 35 wind turbines at a capacity of 560 MW. Construction phase anticipated to begin in 2025.	The Crown Estate Scotland	High	Consented																		
Gunfleet Sands I	Gunfleet Sands I Offshore Wind Farm consists of up to 30 turbines at a capacity of 108 MW.	The Crown Estate	High	Operational																		
Gunfleet Sands II	Gunfleet Sands II Offshore Wind Farm consists of up to 18 turbines at a capacity of 65 MW.	The Crown Estate	High	Operational																		
Gunfleet Sands Demo	Gunfleet Sands 3 Demonstration Project consists of 2 turbines at a capacity of 12 MW.	The Crown Estate	High	Operational																		
Gwynt y Môr Offshore Wind Farm	Gwynt y Môr Offshore Wind Farm consists of up to 160 wind turbines at a capacity of 576 MW.	The Crown Estate	High	Operational																		
Hornsea One	Hornsea One Offshore Wind Farm consists of up to 174 wind turbines at a capacity of 1,200 MW.	The Crown Estate	High	Operational																		
Hornsea Project Two	Hornsea Two Offshore Wind Farm consists of up to 165 wind turbines at a capacity of 1,300 MW.	The Crown Estate	High	Operational																		
Hornsea Project Three	Hornsea Three Offshore Wind Farm is consented for up to 231 wind turbines with a capacity of 2,900 MW. Project lifetime of 35 years.	The Crown Estate	High	Under Construction																		

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Hornsea Project Four ³	Hornsea Four Offshore Wind Farm is proposed for up to 180 wind turbines at a capacity of 2,600 MW. Ørsted has discontinued the Hornsea 4 project in its current form. Ørsted will keep the project rights and will seek to develop the project at a later date.	The Crown Estate	High	Consented/ Discontinued																		
Humber Gateway	Humber Gateway Offshore Wind Farm consists of up to 73 wind turbines at a capacity of 219 MW.	The Crown Estate	High	Operational																		
Hywind Scotland Wind Farm (Buchan Deep Demo)	Floating offshore wind farm with 5 wind turbines and 30 MW installed capacity. The wind farm started operating in 2017 with a design life of 20 years. Decommissioning is planned to be undertaken during Q2/Q3 2038.	The Crown Estate Scotland	High	Operational																		
Inch Cape Offshore Wind Farm	Inch Cape Offshore Wind Farm is consented for up to 72 wind turbines with a capacity of 1,100 MW.	The Crown Estate Scotland	High	Under Construction																		
Inner Dowsing Offshore Wind Farm	Inner Dowsing Offshore Wind Farms consist of 27 wind turbines at a capacity of 97 MW. Lynn and Inner Dowsing transmission consists of 1 cable at a capacity of 36 kV connected to the Middlemarsh onshore substation to the west of Skegness.	The Crown Estate	High	Operational																		
Kentish Flats	Kentish Flats consists of up to 30 turbines at a capacity of 90 MW.	The Crown Estate	High	Operational																		
Kentish Flats Extension	Kentish Flats Extension consists of up to 15 turbines at a capacity of 50 MW.	The Crown Estate	High	Operational																		
Kincardine Offshore Wind Farm	Kincardine Offshore Wind Farm is consented for up to 7 wind turbines with 6 currently operational. Capacity of 50 MW.	The Crown Estate Scotland	High	Operational																		
Lincs	Lincs Offshore Wind Farm consists of 75 wind turbines at a capacity of 270 MW. Lincs transmission consists of 2 cables at a capacity of 132kV to a grid connection point at Warpole, Norfolk.	The Crown Estate	High	Operational																		
London Array	London Array Offshore Wind Farm consists of up to 175 turbines at a capacity of 630 MW.	The Crown Estate	High	Operational																		

³ Project is 'consented' and has been considered at the CEA screening stage. However, based upon publicly available information, there are no plans to develop this project in its current form, and no current programme is available. As such it has not been possible to consider the temporal overlap for this project in a meaningful way and has been screened out of further consideration, unless explicitly stated for individual topics (e.g. for ornithology as mortality numbers for the Hornsea has been included in PVA modelling).

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Lynn Offshore Wind Farm	Lynn Offshore Wind Farms consist of 27 wind turbines at a capacity of 97 MW. Lynn and Inner Drowsing transmission consists of 1 cable at a capacity of 36 kV connected to the Middlemarsh onshore substation to the west of Skegness.	The Crown Estate	High	Operational																		
MarramWind Offshore Wind Farm	Proposed floating offshore windfarm for up to 147 wind turbines at a capacity of 3,000 MW.	The Crown Estate Scotland	High	Application submitted but not yet determined																		
Methil Demo (Levenmouth Demonstration Turbine)	Methil Demo consists of up to 1 wind turbine at a capacity of 7 MW.	The Crown Estate Scotland	High	Operational																		
Mona Offshore Wind Project	Mona Offshore Wind Farm is proposed for up to 96 wind turbines at a capacity of 1,500 MW.	The Crown Estate	High	Consented																		
Moray Offshore Windfarm (East)	Moray East Offshore Wind Farm consists of up to 100 wind turbines at a capacity of 950 MW.	The Crown Estate Scotland	High	Operational																		
Moray Offshore Windfarm (West)	Moray West Offshore Wind Farm is consented for up to 60 wind turbines at a capacity of 882 MW.	The Crown Estate Scotland	High	Operational																		
Morecambe Offshore Windfarm Generation Assets	Morecambe Offshore Wind Farm is proposed for up to 35 wind turbines at a capacity of 480 MW.	The Crown Estate	High	Consented																		
Morgan Offshore Wind Project Generation Assets ⁴	Morgan Offshore Wind Farm is proposed for up to 96 wind turbines at a capacity of 1,500 MW.	The Crown Estate	High	Consented/ Discontinued																		
Muir Mhòr Offshore Wind Farm	Muir Mhòr Offshore Wind Farm is proposed for up to 67 wind turbine at a capacity of 798 MW. Additional information submitted to MD-LOT October 2025.	The Crown Estate Scotland	High	Application submitted but not yet determined																		
Neart na Gaoithe Offshore Wind	Neart na Gaoithe Offshore Wind Farm is consented for up to 54 wind turbines with a capacity of 450 MW.	The Crown Estate Scotland	High	Operational																		
Norfolk Boreas Offshore Wind Farm	Norfolk Boreas Offshore Wind Farm is consented for up to 137 wind turbines with a capacity of 1,400 MW.	The Crown Estate	High	Consented																		

⁴ Project status is 'consented' and has been considered at the CEA screening stage. However, based on publicly available project information, a current programme is not available (following failure to gain CfD in AR7). As such it has not been possible to consider the temporal overlap for this project in a meaningful way and has been screened out of further consideration unless specifically stated as part of the topic level screening and assessment stage.

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Norfolk Vanguard East	Norfolk Vanguard Offshore Wind Farm is consented for up to 145 wind turbines with a capacity of 1,800 MW.	The Crown Estate	High	Consented																		
Norfolk Vanguard West	Norfolk Vanguard Offshore Wind Farm is consented for up to 145 wind turbines with a capacity of 1,800 MW.	The Crown Estate	High	Consented																		
North Falls Offshore Wind Farm	North Falls Offshore Wind Farm is proposed for up to 57 turbines at a capacity of 504 MW.	The Crown Estate	High	Application submitted but not yet determined																		
North Hoyle Offshore Wind Farm	North Hoyle Offshore Wind Farm consists of up to 30 wind turbines at a capacity of 60 MW.	The Crown Estate	Medium	Operational																		
Ormonde	Ormonde Offshore Wind Farm consists of up to 30 wind turbines at a capacity of 150 MW.	The Crown Estate	High	Operational																		
Ossian Offshore Wind Farm	The Ossian Floating Wind project is proposed for up to 265 floating wind turbines with a capacity of 3,600 MW. Operational lifetime 35 years. Additional information submitted to MD-LOT October 2025.	The Crown Estate Scotland	High	Application submitted but not yet determined																		
Outer Dowsing Offshore Wind	Outer Dowsing Offshore Wind is a 1,500 MW offshore wind farm with up to 100 wind turbines located approximately 54 km off the Lincolnshire coast.	The Crown Estate	High	Application submitted but not yet determined																		
Pentland Floating Offshore Wind	Pentland floating Offshore Wind Farm is consented for up to 6 wind turbines with a capacity of 100 MW. Up to two export cables making landfall at the Dounreay coast.	The Crown Estate Scotland	High	Consented																		
Race Bank Offshore Wind Farm	Race Bank Offshore Wind Farm consists of up to 91 wind turbines at a capacity of 573 MW.	The Crown Estate	High	Operational																		
Rampion	Rampion Offshore Wind Farm consists of up to 116 wind turbines at a capacity of 400 MW.	The Crown Estate	High	Operational																		
Rampion 2	Rampion 2 (Rampion Extension and Rampion Zone 6) is consented for up to 90 wind turbines at a capacity of 1,200 MW.	The Crown Estate	High	Consented																		
Rhyl Flats	Rhyl Flats Offshore Wind Farm consists of up to 25 wind turbines at a capacity of 90 MW.	The Crown Estate	High	Operational																		
Robin Rigg East	Robin Rigg East Offshore Wind farm consists of up to 28 wind turbines at a capacity of 84 MW.	The Crown Estate Scotland	High	Operational																		

											Construction window										
											Marine Mammals (and relevant biological topics)										
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Robin Rigg West	Robin Rigg West Offshore Wind Farm consists of up to 30 wind turbines at a capacity of 90 MW.	The Crown Estate Scotland	High	Operational																	
Salamander Offshore Wind Farm	Salamander Offshore Wind Farm is proposed for up to 100 MW.	The Crown Estate Scotland	High	Consented																	
Scroby Sands	Scroby Sands Offshore Wind Farm consists of 29 turbines at a capacity of 60 MW.	The Crown Estate	High	Operational																	
Seagreen 1 Offshore Wind Farm	Seagreen 1 Offshore Wind Farm consists of up to 114 wind turbines at a capacity of 1,075 MW. Seagreen was consented with permission to install 150 wind turbines. The remaining 36 wind turbines are consented but not yet constructed (Seagreen 1A project).	The Crown Estate Scotland	High	Operational																	
Seagreen 1A Project	Seagreen 1A is made up of the 36 remaining wind turbines consented as part of the Seagreen 1 Offshore Wind Farm. Seagreen 1A submitted a variation in consent to allow construction to take place between 2029 and 2032.	The Crown Estate Scotland	High	Consented																	
Sheringham Shoal	Sheringham Shoal Offshore Wind Farm consists of up to 88 wind turbines at a capacity of 317 MW.	The Crown Estate	High	Operational																	
Sheringham Shoal Extension	Sheringham Shoal Extension is proposed for up to 27 wind turbines at a capacity of 317 MW.	The Crown Estate	High	Consented																	
Sofia Offshore Wind Farm (Formerly Dogger Bank Teesside B)	Sofia Offshore Wind farm consists of up to 100 wind turbines at a capacity of 1,400 MW. Two export cables with landfall point at between Redcar and Narske-by-the-Sea.	The Crown Estate	High	Under Construction																	
Teesside	Teesside Offshore Wind Farm consists of up to 27 wind turbines at a capacity of 62 MW.	The Crown Estate	High	Operational																	
Thanet	Thanet Offshore Wind farm consists of up to 100 turbines at a capacity of 300 MW.	The Crown Estate	High	Operational																	
Triton Knoll	Triton Knoll Offshore Wind Farm consists of up to 90 wind turbines at a capacity of 875 MW.	The Crown Estate	High	Operational																	

					Construction window																
					Marine Mammals (and relevant biological topics)																
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Twin Hub (Wave Hub)	TwinHub is a floating offshore wind demonstration project consisting of two platforms each with two turbines at a capacity of 32 MW.	The Crown Estate	High	Consented																	
Walney 1	Walney 1 Offshore Wind Farm consists of up to 51 wind turbines at a capacity of 184 MW.	The Crown Estate	High	Operational																	
Walney 2	Walney 2 Offshore Wind Farm consists of up to 51 wind turbines at a capacity of 184 MW.	The Crown Estate	High	Operational																	
Walney Extension 3	Walney Extension 3 consists of up to 40 wind turbines with 330 MW capacity.	The Crown Estate	High	Operational																	
Walney Extension 4	Walney Extension 4 consists of up to 47 wind turbines with 329 MW capacity.	The Crown Estate	High	Operational																	
West of Duddon Sands	West of Duddon Sands Offshore Wind farm consists of 108 wind turbines at a capacity of up to 389 MW.	The Crown Estate	High	Operational																	
West of Orkney Wind Farm	Offshore wind project comprising up to 125 wind turbines with a 2,000 MW capacity.	The Crown Estate Scotland	High	Consented																	
Westermost Rough	Westermost Rough Offshore Wind Farm consists of up to 35 wind turbines at a capacity of 210 MW.	The Crown Estate	High	Operational																	
Tier 3																					
Arven Offshore Wind Farm	Arven is a 2,300 MW floating offshore wind development located to the east of the Shetland Islands. Scoping application for two array areas, Arven Array Area (360 km²) and Arven South Array Area (100 km²). Up to 161 wind turbines and 8 export cables. Arven Offshore Wind Farm is proposed for a capacity of 1800 MW.	The Crown Estate Scotland	High	Pre-Application																	
Bellrock Offshore Wind Farm	Bellrock Offshore Wind Farm is proposed for a capacity of 1,800 MW with between 42 and 80 wind turbines.	The Crown Estate Scotland	High	Pre-Application																	
Broadshore Offshore Wind Farm	The Broadshore Offshore Wind Farm is proposed for a capacity of 900 MW with between 32 and 60 wind turbines.	The Crown Estate Scotland	High	Pre-Application																	

Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	Construction window							Marine Mammals (and relevant biological topics)					2038	2039	2040	2041-2066
											2031	2032	2033	2034	2035	2036	2037									
Dogger Bank D	Proposed wind farm with up to 122 wind turbines and a capacity of 2,000 MW. Up to 4 export cables making landfall south east of Skipsea. Scoping report part 1 and 2 submitted June 2024. Application is expected to be submitted between July and September 2026.	Doggerbank Offshore Wind Farm Project 4 Projco Limited	High	Pre-Application																						
Havbredey Offshore Wind Farm	Havbredey Offshore Wind Farm is proposed for up to 110 wind turbines at a capacity of 1,500 MW.	The Crown Estate Scotland	High	Pre-Application																						
MachairWind Offshore Wind Farm	MachairWind Offshore Wind Farm is proposed for up to 147 wind turbines at a capacity of 2,000 MW.	The Crown Estate Scotland	High	Pre-Application																						
Morven North Offshore Wind Farm	Morven North Offshore Wind Array Project is proposed for up to 96 wind turbines at a capacity of 1,500 MW. Application of relevant consents and licences expected in 2026 with decision in 2027.	The Crown Estate Scotland	High	Pre-Application																						
Morven South Offshore Wind Farm	Morven South Offshore Wind Array Project is proposed for up to 95 wind turbines at a capacity of 1,500 MW. Application of relevant consents and licences expected in 2026 with decision in 2027.	The Crown Estate Scotland	High	Pre-Application																						
Scaraben Offshore Wind Farm	Proposed between 3 and 6 wind turbines with a capacity of up to 99.5 MW.	The Crown Estate Scotland	High	Pre-Application																						
Sinclair Offshore Wind Farm	Proposed between 3 and 6 wind turbines with a capacity of up to 99.5 MW.	The Crown Estate Scotland	High	Pre-Application																						
Spiorad na Mara	Comprising up to 60 wind turbines, with an approximate capacity of 900 MW. Scoping opinion issued September 2023.	The Crown Estate Scotland	High	Pre-Application																						
Stromar	Stromar is a proposed floating offshore wind farm for up to 1,500 MW capacity. Scoping Opinion issued April 2024.	The Crown Estate Scotland	High	Pre-Application																						
Stoura Offshore Wind	Stoura Offshore Wind Farm is proposed for up to 500 MW capacity from up to 40 wind turbines. Anticipated 35 years lifetime. Scoping Opinion issued October 2025.	The Crown Estate Scotland	High	Pre-Application																						
Talisk Offshore Wind Project	Talisk Offshore Wind Farm is proposed for up to 33 wind turbines with a capacity of 495 MW. Scoping Opinion issued June 2025.	The Crown Estate Scotland	High	Pre-Application																						

											Construction window										
											Marine Mammals (and relevant biological topics)										
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Tier 4																					
Beech Offshore Wind Farm	Floating windfarm for up to 1,008 MW. Anticipating 50+ years of operations.	The Crown Estate Scotland	Medium	Pre-Planning																	
Cedar	Cedar Offshore Wind Farm is proposed for up to 1,008 MW. Anticipating 50+ years of operations.	The Crown Estate Scotland	Medium	Pre-Planning																	
Floating Offshore Wind Leasing Round 5 - Project Development Area 2	Project Development Area 2 is currently unallocated. The site has a capacity of 1,500 MW.	EMODnet	High	Pre-Planning																	
Floating Offshore Wind Leasing Round 5 - Project Development Area 3	Equinor has been awarded the offshore wind lease for Project Development Area 3 of the Floating Offshore Wind Leasing Round 5. The site has a capacity of 1,500 MW.	EMODnet	High	Pre-Planning																	
Flora Floating Wind Farm	INTOG site 4 is proposed for up to 50 MW.	The Crown Estate Scotland	High	Pre-Planning																	
Gwynt Glas Floating Offshore Wind Farm	Gwynt Glas Floating Offshore Wind has signed an Agreement for Lease with the Crown Estate for Project Development Area 1 of the Floating Offshore Wind Leasing Round 5. The site has a capacity of 1,500 MW.	EMODnet	High	Pre-Planning																	
Judy (HE Project)	Harbour Energy INTOG site is proposed for up to 15 MW.	The Crown Estate Scotland	High	Pre-Planning																	
Malin Sea Wind Offshore Wind Farm	Malin Sea Offshore Wind is proposed for up to 100 MW from around 6 wind turbines.	The Crown Estate Scotland	High	Pre-Planning																	
Ireland																					
Tier 2																					
Arklow Bank Wind Park Phase 1	Phase 1 of the Wind Park was constructed in 2003/04 consisting of 7 wind turbines with a capacity of 25.2 MW. Arklow Energy Limited submitted a Proposed Decommissioning of Arklow Bank Wind Park Phase 1 in January 2025. No is currently no timeline for decommissioning.	EMODnet	High	Operational																	
Arklow Bank Wind Park Phase 2	Up to 56 wind turbines with potential capacity up to 800 MW.	EMODnet	High	Application submitted but not yet determined																	

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Codling Wind Park	Proposed up to 75 wind turbines with expected generating capacity of 1,300 MW. The Codling Wind Park and Codling Wind Park Extension are being developed as one project, the Codling Wind Park.	EMODnet	High	Application submitted but not yet determined																		
Dublin Array Offshore Wind Farm	The Dublin Array wind farm project would be located 10 km off the coast of Dublin and have between 39 and 50 wind turbines with a generating capacity up to 824 MW.	EMODnet	High	Application submitted but not yet determined																		
North Irish Sea Array (NISA)	NISA is proposed for up to 49 wind turbines at a capacity of 500 MW.	EMODnet	High	Application submitted but not yet determined																		
Oriel Wind Farm	Oriel Wind Farm is proposed for up to 25 wind turbines at a capacity of 375 MW.	EMODnet	High	Application submitted but not yet determined																		
Tier 3																						
Emerald Floating Windfarm	Emerald Project is proposed for up to 45 turbines at a capacity of 1,300 MW. Scoping Report submitted January 2023.	EMODnet	High	Pre-Application																		
Inis Ealga Marine Energy Park	Inis Ealga Offshore wind farm is proposed for up to 70 turbines at a capacity of 1,000 MW. Scoping Report submitted July 2022.	EMODnet	High	Pre-Application																		
North Celtic Sea Offshore Wind Farm	North Celtic Sea Offshore Wind Farm is proposed for approximately 40 to 60 turbines of up to 600 to 800 MW. Scoping report published in May 2023.	EMODnet	High	Pre-Application																		
Tier 4																						
Clogher Head Offshore Wind Farm	Planned capacity of 800 MW.	EMODnet	High	Pre-Planning																		
Cooley Point Offshore Wind Farm	Proposed 500 MW.	EMODnet	High	Pre-Planning																		
Kilmichael Point	Kilmichael Point is proposed for up to 500 MW.	EMODnet	Medium	Pre-Planning																		
Setanta offshore wind project	Previously named Braymore Wind Park. Proposed offshore wind farm, Up to 1,000 MW capacity. Expected for commission in 2027. Area: 444 km².	EMODnet	High	Pre-Planning																		
South Irish Sea Project	Proposed 40-60 wind turbines with a capacity of 600-800 MW.	EMODnet	Medium	Pre-Planning																		

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Belgium																						
Tier 2																						
Belwind Offshore Wind Project	Belwind consists of up to 56 turbines at a capacity of 171 MW.	EMODnet	High	Operational																		
C-Power Offshore Wind Farm (Thornton Bank)	C-Power (Zone A and B) Offshore Wind Farm consists of up to 54 turbines at a capacity of 325 MW. Subarea A (southwestern part) consists of 30 turbines. Subarea B (northeastern part) consists of 24 turbines.	EMODnet	High	Operational																		
Nobelwind Offshore Wind Project	Nobelwind consists of 50 turbines at a capacity of 165 MW. Operational since 2017.	EMODnet	High	Operational																		
Norther Offshore Wind Farm	Norther Offshore Wind Farm consists of up to 44 turbines at a capacity of 370 MW. Operational since 2020.	EMODnet	High	Operational																		
Northwester 2	Northwester 2 Offshore Wind Farm consists of up to 23 turbines at a capacity of 219 MW. Operational since 2020.	EMODnet	High	Operational																		
Northwind	Northwind Offshore Wind Farm consists of up to 72 turbines at a capacity of 216 MW. Operational since 2014.	EMODnet	High	Operational																		
Rentel Offshore Wind Project	Rentel Offshore Wind Farm consists of up to 42 turbines at a capacity of 309 MW. Operational since 2018.	EMODnet	High	Operational																		
SeaMade Offshore Wind Project	The SeaMade wind farm is the result of the merger of the former Seastar and Mermaid projects. It consists of two zones, the Seastar zone and the Mermaid zone. The wind farm has 58 wind turbines with a capacity of 487 MW. Operational since 2020.	EMODnet	High	Operational																		
Denmark																						
Tier 2																						
Horns Rev I	Horns Rev I Offshore Wind Farm consists of up to 80 wind turbines at a capacity of 160 MW.	EMODnet	High	Operational																		
Horns Rev II	The Horns Rev II Offshore Wind Farm consists of up to 91 wind turbines at a capacity of 209.3 MW.	EMODnet	High	Operational																		
Horns Rev III	The Horns Rev III Offshore Wind Farm consists of up to 49 wind turbines at a capacity of 407 MW.	EMODnet	High	Operational																		

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Jammerbugt Offshore Park	The Jammerland Bay offshore wind farm is planned to comprise between 16 and 23 wind turbines with a capacity of 240 MW, installed between 6 and 8 km from the coast.	EMODnet	High	Consented																		
Nissum Bredning	Nissum Bredning Offshore Wind Farm consists of up to 4 wind turbines at a capacity of 28 MW.	EMODnet	Medium	Operational																		
Rønland Offshore Wind Farm	8 wind turbines with a capacity of 17.2 MW. Wind park established in 2003.	EMODnet	Medium	Operational																		
Thor - 2020 Tender	Thor Offshore Wind Farm is proposed for up to 72 wind turbines at a capacity of 1,000 MW.	EMODnet	High	Under Construction																		
Vesterhav Nord	The Vesterhav Nord is consented for up to 20 wind turbines with a capacity of up to 176 MW.	EMODnet	High	Operational																		
Vesterhav Syd	The Vesterhav Syd is consented for up to 21 wind turbines with a capacity of up to 168 MW.	EMODnet	High	Operational																		
Tier 4																						
Jyske Banke Nord	Proposed 1,100 MW in the North Sea, Denmark. Project potentially rejected as part of the Danish Energy Agency Open-Door Scheme.	EMODnet	High	Planned																		
Nordsøen I - A1	Wind farm is currently out to tender with bid deadline in 2027. Planning and environmental impact report anticipated to start in 2027. Capacity of up to 1,000 MW.	EMODnet	High	Planned																		
Nordsøen I - A2	Wind farm is currently out to tender with bid deadline in 2026. Planning and environmental impact report anticipated to start in 2026. Capacity of up to 1,000 MW.	EMODnet	High	Planned																		
Nordsøen I - A3	Capacity of up to 1,000 MW.	EMODnet	Medium	Planned																		
Nordsren II	Development area.	EMODnet	Medium	Planned																		
Nordsren II vest	Development area.	EMODnet	Medium	Planned																		
Nordsren III	Development area.	EMODnet	Medium	Planned																		
Nordsren III vest	Development area.	EMODnet	Medium	Planned																		

					Construction window																
					Marine Mammals (and relevant biological topics)																
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
France																					
Tier 2																					
Courseulles-sur-mer	Courseulles-sur-mer is consented for up to 64 turbines at a capacity of 448 MW.	EMODnet	High	Under Construction																	
Dieppe Le Tréport	Dieppe Le Tréport is consented for up to 62 turbines at a capacity of 500 MW.	EMODnet	High	Under Construction																	
Dunkirk Offshore Wind Farm (Dunkerque)	Dunkirk Offshore Wind Farm consists of 46 turbines with a capacity of 600 MW. Commissioning is planned for 2028 for an operational period of 30 years.	EMODnet	High	Consented																	
Fécamp Offshore Wind Farm	Fécamp consists of up to 71 turbines at a capacity of 500 MW.	EMODnet	High	Operational																	
Saint-Brieuc	Saint-Brieuc consists of 62 wind turbines, each with a capacity of 8 MW, totalling 496 MW.	EMODnet	High	Operational																	
Tier 4																					
Centre-Manche 1	Proposed capacity of 1,000 MW.	EMODnet	High	Planned																	
Centre-Manche 2	Proposed capacity of 1,500 MW.	EMODnet	High	Planned																	
Germany																					
Tier 2																					
Albatros Offshore Wind Farm	Albatros Offshore Wind Farm consists of up to 16 wind turbines at a capacity of 112 MW.	EMODnet	Medium	Operational																	
Alpha Ventus	Alpha Ventus consists of up to 12 wind turbines at a capacity of 60 MW. Potential for dismantle after 15 years of operation (news released March 2025) with no current decommissioning programme.	EMODnet	Medium	Operational																	
Amrumbank West Offshore Wind Farm	The Amrumbank Offshore Wind Farm consists of up to 80 wind turbines at a capacity of 302 MW.	EMODnet	Medium	Operational																	
Bard Offshore 1	BARD Offshore 1 consists of up to 80 wind turbines at a capacity of 400 MW.	EMODnet	Medium	Operational																	
Borkum Riffgrund 1	Borkum Riffgrund 1 consists of up to 78 wind turbines at a capacity of 312 MW.	EMODnet	High	Operational																	

					Construction window																
					Marine Mammals (and relevant biological topics)																
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Borkum Riffgrund 2	Borkum Riffgrund 2 consists of up to 56 wind turbines at a capacity of 450 MW.	EMODnet	High	Operational																	
Borkum Riffgrund 3	Borkum Riffgrund 3 is consented for up to 83 wind turbines with a capacity of 913 MW. 2019 project update: Ørsted is merging the Borkum Riffgrund West 1 & 2 and OWP West offshore wind projects in Germany under the name Borkum Riffgrund 3.	EMODnet	High	Operational																	
Butendiek	Butendiek consists of up to 80 wind turbines at a capacity of 288 MW.	EMODnet	Medium	Operational																	
Dan Tysk	DanTysk consists of up to 80 wind turbines at a capacity of 288 MW.	EMODnet	High	Operational																	
Deutsche Bucht	Deutsche Bucht consists of up to 31 wind turbines at a capacity of 260 MW.	EMODnet	High	Operational																	
GlobalTech I	GlobalTech I consists of up to 80 wind turbines at a capacity of 400 MW.	EMODnet	High	Operational																	
Gode Wind 01	Gode Wind 1 consists of up to 55 wind turbines at a capacity of 344.52 MW.	EMODnet	High	Operational																	
Gode Wind 02	Gode Wind 2 consists of up to 42 wind turbines at a capacity of 252 MW.	EMODnet	High	Operational																	
Gode Wind 3	Gode Wind 3 is consented for up to 23 wind turbines with a capacity of 253 MW. The wind farm went fully into commercial operation in February 2025.	EMODnet	High	Operational																	
He Dreiht	EnBW He Dreiht is proposed for up to 64 wind turbines with a capacity of 960 MW.	EMODnet	High	Under Construction																	
Hohe See	EnBW Hohe See consists of up to 71 wind turbines at a capacity of 497 MW.	EMODnet	High	Operational																	
Kaskasi II Offshore-Windpark	Consists of up to 38 wind turbines at a capacity of 342 MW.	EMODnet	High	Operational																	
Meerwind Sued/Ost	Meerwind Süd/Ost consists of up to 80 wind turbines at a capacity of 288 MW.	EMODnet	High	Operational																	
Merkur Offshore (MEG Offshore I)	Merkur Offshore (MEG Offshore I) consists of up to 66 wind turbines at a capacity of 396 MW.	EMODnet	High	Operational																	
Nordergründe	Nordergründe Offshore Wind Farm consists of up to 18 wind turbines at a capacity of 111 MW.	EMODnet	Medium	Operational																	

											Construction window										
											Marine Mammals (and relevant biological topics)										
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Nordlicht I (N-7.2)	N-7.2 Offshore Wind Farm is proposed for a capacity of 980 MW. Construction of the Nordlicht 1 and 2 wind farms is planned to begin in 2026, and Nordlicht 1 is set to become Germany’s largest offshore wind project. The wind farms are expected to be operational in 2028.	EMODnet	High	Consented																	
Nordlicht II (N-6.6)	N-6.6 Offshore Wind Farm is proposed for a capacity of 630 MW. Construction of the Nordlicht 1 and 2 wind farms is planned to begin in 2026, and Nordlicht 1 is set to become Germany’s largest offshore wind project. The wind farms are expected to be operational in 2028.	EMODnet	High	Consented																	
Nordsee One	The Nordsee One Wind Farm consists of up to 54 wind turbines at a capacity of 332 MW.	EMODnet	High	Operational																	
Nordsee Ost	Nordsee Ost consists of up to 48 wind turbines at a capacity of 295.2 MW.	EMODnet	High	Operational																	
Nordseecluster A - NC 1 (N-3.7)	N-3.7 Offshore Wind Farm is proposed for up to 16 wind turbines at a capacity of 225 MW. Expected commissioning 2027. At final investment decisions (FID) stage.	EMODnet	High	Under Construction																	
Nordseecluster A - NC 2 (N-3.8)	N-3.8 Offshore Wind Farm is proposed for up to 9 wind turbines at a capacity of 435 MW. Expected commissioning 2027. At FID stage.	EMODnet	High	Under Construction																	
Nordseecluster B - NC 3 (N-3.5)	N-3.5 Offshore Wind Farm is proposed for a capacity of 420 MW. Expected commissioning beginning of 2029. At FID stage.	EMODnet	High	Consented																	
Nordseecluster B - NC 4 (N-3.6)	N-3.6 Offshore Wind Farm is proposed for a capacity of 480 MW. Expected commissioning beginning of 2029. At FID stage.	EMODnet	High	Consented																	
Riffgat	Riffgat consists of up to 30 turbines at a capacity of 113 MW.	EMODnet	High	Operational																	
Sandbank	Sandbank consists of up to 72 wind turbines at a capacity of 288 MW.	EMODnet	High	Operational																	
Trianel Windpark Borkum Phase 1	Trianel Windpark Borkum Phase 1 consists of up to 40 wind turbines at a capacity of 200 MW.	EMODnet	High	Operational																	

											Construction window												
											Marine Mammals (and relevant biological topics)												
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066		
Trianel Windpark Borkum Phase 2	Trianel Windpark Borkum Phase 2 consists of up to 32 wind turbines at a capacity of 200 MW.	EMODnet	High	Operational																			
Veja Mate	Veja Mate Offshore Wind Farm consists of up to 67 wind turbines at a capacity of 402 MW.	EMODnet	High	Operational																			
Tier 4																							
Dreekant	Offshore Wind Farm is proposed at a capacity of 1,000 MW.	EMODnet	High	Planned																			
N-10.1	Development area with a capacity of 2,000 MW and expected commissioning 2031. No bids were submitted in the August 2025 auction. The site will be put out to tender again in June 2026.	EMODnet	Medium	Planned																			
N-10.2	Development area with a capacity of 500 MW and expected commissioning 2030. No bids were submitted in the August 2025 auction. The site will be put out to tender again in June 2026.	EMODnet	Medium	Planned																			
Nordsee Energies 1	Offshore Wind Farm is proposed for a capacity of 2,000 MW.	EMODnet	High	Planned																			
Nordsee Energies 2	Offshore Wind Farm is proposed for a capacity of 1,500 MW.	EMODnet	High	Planned																			
Nordsee Energies 3	Offshore Wind Farm is proposed for a capacity of 1,000 MW.	EMODnet	Medium	Planned																			
Oceanbeat East	Offshore Wind Farm is proposed for a capacity of 2,000 MW.	EMODnet	High	Planned																			
Oceanbeat West	Offshore Wind Farm is proposed for a capacity of 2,000 MW.	EMODnet	High	Planned																			
Waterekke (N-9.3)	N-9.3 Offshore Wind Farm is proposed for a capacity of 1,500 MW. Expected commissioning 2029.	EMODnet	Medium	Planned																			
Waterkant offshore wind farm (N-6.7)	N-6.7 Offshore Wind Farm is proposed for a capacity of 270 MW.	EMODnet	Medium	Planned																			
Windbostel Ost (N-9.1)	N-9.1 Offshore Wind Farm is proposed for a capacity of 2,000 MW.	EMODnet	Medium	Planned																			
Windbostel West (N-9.2)	N-9.2 Offshore Wind Farm is proposed for a capacity of 2,000 MW. Expected commissioning 2031.	EMODnet	Medium	Planned																			

					Construction window																
					Marine Mammals (and relevant biological topics)																
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Netherlands																					
Tier 2																					
Borssele 1 & 2 Wind Farm	Borssele 1&2 Wind Farm consists of 94 wind turbines with a capacity of 752 MW.	EMODnet	High	Operational																	
Borssele III & IV Wind Farm	Borssele III & IV Wind Farm consists of 77 wind turbines with a capacity of 731.5 MW.	EMODnet	High	Operational																	
Borssele V Offshore Wind Farm	Borssele V consists of 2 wind turbines with a capacity of 19 MW.	EMODnet	High	Operational																	
ECOWENDE Windpark Hollandse Kust West (HKW Kavel VI)	Hollandse Kust (west) is consented for up to 54 turbines at a capacity of 760 MW.	EMODnet	High	Under Construction																	
Eneco Luchterduinen Wind Farm	Eneco Luchterduinen Offshore Wind Farm consists of up to 43 wind turbines at a capacity of 129 MW.	EMODnet	High	Operational																	
Gemini Wind Park	The Gemini Wind Park consists of 150 wind turbines at a capacity of 600 MW. The wind park is made up of two sub parks, Buitengaats/Gemini I and ZeeEnergie/Gemini II.	EMODnet	Medium	Operational																	
Hollandse Kust Noord Wind Farm (Site V)	Hollandse Kust Zuid consists of up to 69 wind turbines at a capacity of 759 MW.	EMODnet	High	Operational																	
Hollandse Kust Zuid Wind Farm (HKZ Kavel I to IV)	Hollandse Kust Zuid consists of up to 140 wind turbines at a capacity of 1,540 MW.	EMODnet	High	Operational																	
IJmuiden Ver Wind Farm Alpha	IJmuiden Ver Wind Farm Alpha is proposed for a capacity of 2,000 MW.	EMODnet	Medium	Consented																	
IJmuiden Ver Wind Farm Beta	IJmuiden Ver Wind Farm Beta is proposed for a capacity of 2,000 MW. Construction of the wind farm will be phased with the first 1,000 MW completed by 2029 and the second half by 2032.	EMODnet	Medium	Consented																	
NoordzeeWind Offshore Wind Farm (Egmond aan Zee)	NoordzeeWind Offshore Wind Farm consists of 36 wind turbines with a capacity of 108 MW. 5 year extension granted in 2025 extending operations until 2031.	EMODnet	High	Operational																	
OranjeWind (HKW Kavel VII)	OranjeWind will consist of 53 wind turbines with a capacity of 795 MW.	EMODnet	High	Consented																	

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Princess Amalia Wind Farm	Princess Amalia Offshore Wind Farm consists of up to 60 turbines at a capacity of 120 MW.	EMODnet	High	Operational																		
Tier 4																						
IJmuiden Ver Gamma A (IJmuiden Ver Noord (IJ-Ver-n))	The Gamma A site is within the IJmuiden Ver development area and has a capacity of up to 1,000 MW. The tender date is to be decided.	EMODnet	Medium	Planned																		
IJmuiden Ver Gamma B (IJmuiden Ver Noord (IJ-Ver-n))	The Gamma B site is within the IJmuiden Ver development area and has a capacity of up to 1,000 MW. The tender date is to be decided.	EMODnet	Medium	Planned																		
Nederwiek I-A (Gebied 1 Zuid (1-z))	The Dutch government plans to open a tender for the Nederwiek I-A site in late 2025. The site has a capacity of up to 1,000 MW.	EMODnet	Medium	Planned																		
Nederwiek I-B (Gebied 1 Zuid (1-z))	The Dutch government plans to open a tender for the Nederwiek I-B site in 2026. The site has a capacity of up to 1,000 MW.	EMODnet	Medium	Planned																		
Nederwiek II and III (Gebied 1 Noord (1-n))	The Dutch government plans to open a tender for the Nederwiek II site in 2026. The site has a capacity of up to 4,000 MW.	EMODnet	Medium	Planned																		
Ten Noorden van de Waddeneilanden	Ten Noorden van de Waddeneilanden is proposed for a capacity of 700 MW. The Dutch Government will release the tender for a permit to develop with the wind farm being released in 2027.	EMODnet	Medium	Planned																		
Sweden																						
Tier 2																						
Energy Park Vidar	Energy Park Vidar is proposed for up to 91 wind turbines with a capacity of 2,000 MW.	EMODnet	High	Application submitted but not yet determined																		
Mareld Floating Offshore Wind Farm	Mareld Offshore Wind Farm is consented for 2,500 MW. The project has received a Natura 2000 permit but is awaiting 2 more permits before the project can proceed.	EMODnet	High	Application submitted but not yet determined																		

											Construction window										
											Marine Mammals (and relevant biological topics)										
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Poseidon Wind Power Project	Proposed 81 wind turbines with a capacity up to 1,400 MW. Permit for the construction and operation of the wind farm granted in November 2024. The permit is valid for 40 years from the start of the wind farm.	EMODnet	High	Consented																	
Tidal Farms																					
United Kingdom																					
Tier 2																					
Bluemull Sound (Shetland)	Bluemull Sound Tidal Array consists of up to 6 turbines at a capacity of 600 kW. Three turbines (T1, T2, T3) were decommissioned in 2023. Three other turbines remain.	The Crown Estate Scotland	High	Operational																	
Deer Sound, Orkney	Deer Sound consists of up to 1 turbine at a capacity of 2 MW.	The Crown Estate Scotland	High	Operational																	
EMEC Fall of Warness - 4614	Tidal energy test site located to the west of the island of Eday. The test site has 7.2 MW export capacity. The site consists of 8 cabled test berths at various depths in an approximately 8 km² area. Marine Licence awarded for two Magallanes Tidal Platforms (operational from 2029 for 25 years) in August 2024.	The Crown Estate Scotland	High	Operational																	
EMEC Islay Demonstration Zone	Tidal energy test site off the south-west coast of the Isle of Islay.	EMODnet	Medium	Operational																	
EMEC Shapinsay Sound	Tidal test site located in Shapinsay Sound, to the north-east of Kirkwall, 2 berths in water depths of 21 to 25 m. EMEC holds an overarching site licence. Developers of each new technology to be installed at the site requires a marine licence.	The Crown Estate Scotland	High	Operational																	
Holyhead Deep	Holyhead Deep consists of up to 60 turbines at a capacity of 80 MW.	The Crown Estate	High	Operational																	
Inner Sound (MeyGen Phase 1)	The MeyGen project currently comprises 4 wind turbines with capacity of 6 MW (phase 1a). Phase 1 is consented for up to 61 turbines and a capacity of 86 MW.	The Crown Estate Scotland	High	Operational																	
Milford Haven Estuary (Marine Energy Test Area (META) Phase 2) - Warrior Way	Tidal test site forming part of the Marine Energy Test Areas (META).	The Crown Estate	High	Operational																	

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Morlais Tidal Demonstration Zone	Construct a 35 km2 offshore demonstration zone for tidal stream technology for up to 240 MW. The application was submitted in the autumn of 2019 consent was awarded in December 2021.	EMODnet	High	Under Construction																		
Perpetuus Tidal Energy Centre (PTEC)	Proposed 30 MW tidal stream energy generation project. Consent was awarded in 2016 and entered into 20 year lease from the Crown Estate in 2022. Currently awaiting CfD decision and securing funding to proceed. No construction timeline given.	The Crown Estate	Medium	Consented																		
Sound of Islay Turbine Installation	Single turbine up to 70 kW in the Sound of Islay, Scotland. The operational period is anticipated to last approximately 5 years up to the end of August 2029.	The Crown Estate Scotland	High	Operational																		
Strangford Lough at Portaferry & Marlfield Bay	Test site for the Queens University Belfast.	The Crown Estate	High	Operational																		
West Islay Tidal Energy Park	Offshore tidal generating station 6 km off the south west coast of Islay. Up to 30 tidal turbines with a capacity of 30 MW. The Scottish Government granted consent in 2017; the project is in 'post-consent' phase with a marine licence valid until June 2037.	EMODnet	High	Consented																		
Tier 3																						
Ness of Duncansby	Ness of Duncansby consists of up to 95 turbines at a capacity of 95 MW. Scoping Opinion issued February 2013.	The Crown Estate Scotland	High	Pre-Application																		
Òran na Mara	Proposed 30 tidal stream turbines with capacity up to 10 MW. Scoping Opinion issued December 2023. Design life of 20 years. No construction or operational timelines available.	The Crown Estate Scotland	High	Pre-Application																		
Westray South	Westray South Tidal Array consists of up to 70 turbines at a capacity of 170 MW. Scoping Opinion issued October 2024.	The Crown Estate Scotland	High	Pre-Application																		
Tier 4																						
Colwyn Bay Tidal Lagoon	Colwyn Bay is a proposed Tidal Barrage with unknown capacity.	EMODnet	Medium	Pre-Planning																		

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
EMEC Stronsay Firth Demonstration Site	In July 2014, EMEC was awarded the seabed rights for a new demonstration site in the Stronsay Firth, south east of EMEC's existing tidal test site at the Falls of Warness, and will offer additional testing facilities for tidal energy devices, components, subsystems, arrays and array enabling technology. Limited information on project development since 2015.	EMODnet	High	Pre-Planning																		
Inner Sound (MeyGen Phase 2)	MeyGen phase 2 will allow up to 59 MW. Future phases allow for a capacity out to 398 MW to be installed.	The Crown Estate Scotland	High	Pre-Planning																		
Yell Sound Array	Yell Sound is proposed for a capacity of 15 MW.	The Crown Estate Scotland	High	Pre-Planning																		
Wave Farms																						
United Kingdom																						
Tier 2																						
Bilia Croo (near Stromness)	Billia Croo consists of a capacity of 7 MW. The EMEC grid-connected wave test site was constructed in 2003, and is ideally placed on the western edge of the Orkney mainland, at Billia Croo outside Stromness. The site consists of 5 cabled test berths in up to 70 m water depth (4 at 50 m, 1 deeper), located approximately 2 km offshore and 0.5 km apart. In addition to this, a near shore berth is situated closer to the substation for shallow water projects.	The Crown Estate Scotland	High	Operational																		
EMEC Scapa Flow	Construction of the EMEC Scapa Flow scale wave test site was completed in 2011 and EMEC welcomed their first client on site in 2012. The EMEC wave test site at Scapa Flow is expected to continue to be operational so long as there is a need for testing in the benign real-sea regime the site enjoys. The area is 0.4 km across and approximately 0.9km in length situated in water depths of 21-25 m with a predominant westerly wave regime.	The Crown Estate Scotland	High	Operational																		
Falmouth Bay Test Site (FaBTest)	Falmouth Harbour Commissioners have a lease with the Crown Estate to allow testing of devices that generate electricity from waves, currents, or wind, along with related cables, instruments and subsvstems.	The Crown Estate	High	Operational																		

											Construction window													
											Marine Mammals (and relevant biological topics)													
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066			
Folkecenter Wave Test Station (Nissum Bredning Test Station for Wave energy)	5 kW capacity in 4 m depths, 164 m from coast.	EMODnet	High	Operational																				
Lysekil wave energy research test site	1,000 kW capacity in 25 m depths.	EMODnet	High	Operational																				
Milford Haven Estuary (META Phase 2) - Dale Roads	Wave test site forming part of the META.	The Crown Estate	High	Operational																				
Milford Haven Estuary (META Phase 2) - East Pickard Bay	Wave and floating wind test site forming part of the META.	The Crown Estate	High	Operational																				
QUB Wave Test Site	Two berths 53 m from the coast.	EMODnet	High	Operational																				
Seabed at Pembroke Dock (META Phase 1)	5 quayside test areas forming part of the META.	The Crown Estate	High	Operational																				
Tier 3																								
South Pembrokeshire Demonstration Zone	Offshore infrastructure proposal for Pembrokeshire Demonstration Zone. Infrastructure includes a multi-connection offshore substation and export cables. Scoping Opinion issued April 2023.	The Crown Estate	High	Pre-Application																				
Tier 4																								
Harris Demonstration Zone	The Islay and Harris development sites will complement EMEC’s existing test sites, providing developers of wave and tidal energy devices additional options for demonstrating their technologies in real sea conditions. The sites will provide developers with a different set of marine characteristics, and may be used for single device testing and/or small array testing, with an overall site limit of up to 100 MW. Limited information on project development since 2014.	EMODnet	High	Pre-Planning																				
Denmark																								
Tier 2																								
Danish Wave Energy Center (DanWEC)	500 kW capacity in 15 m depths.	EMODnet	High	Operational																				

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Other - Offshore Export Cable Route and Carbon Capture and Storage (CCS)																						
United Kingdom																						
Tier 2																						
Awel y Môr Offshore Export Cable	Two Offshore Export Cables, 79.4 km long and up to 400 kV.	The Crown Estate	High	Consented																		
Awel y Môr OWF Cable Crossing	15 cable crossing with total length 2,550 m.	The Crown Estate	High	Consented																		
Barrow OFTO	Barrow export cable consists of 1 cable at a capacity of 132 kV. The export cable route is 26 km offshore.	The Crown Estate	High	Operational																		
Beatrice OFTO	2 export cables at a capacity of 220 kV.	The Crown Estate Scotland	High	Operational																		
Berwick Bank OFTO	Berwick Bank transmission is proposed for up to 4 cables. Commencement of offshore construction expected in Q4 2026.	The Crown Estate Scotland	High	Consented																		
Blyth Demo Phase 1 Export Cable	2 export cables at a capacity of 66 kV.	The Crown Estate	High	Operational																		
Burbo Bank Cable	3 export cables at a capacity of 33 kV.	The Crown Estate	High	Operational																		
Burbo Bank Extension Export Cable	2 export cables at a capacity of 220 kV.	The Crown Estate	High	Operational																		
Caledonia Offshore Wind Farm North Export Cable Route	The Caledonia North Offshore Export Corridor runs south through the Caledonia Site (North and South) to the landfall site at Stake Ness. Up to 2 export cables with maximum voltage of 275 kV and stretching up to 180 km.	Caledonia Offshore Wind Farm Limited	High	Application submitted but not yet determined																		
Caledonia Offshore Wind Farm South Export Cable Route	The Caledonia South Offshore Export Corridor runs south to the landfall site at Stake Ness. Up to 2 export cables with maximum voltage of 275 kV and stretching up to 150 km.	Caledonia Offshore Wind Farm Limited	High	Application submitted but not yet determined																		
Dogger Bank A OFTO	Up to 4 export cables will make landfall to the north of Ulrome.	The Crown Estate	High	Under Construction																		
Dogger Bank B OFTO	Up to 4 export cables will make landfall to the north of Ulrome.	The Crown Estate	High	Under Construction																		
Dogger Bank C Transmission Assets	Up to 2 export cables will make landfall near Marske-by-the-Sea on Teesside.	The Crown Estate	High	Under Construction																		

											Construction window										
											Marine Mammals (and relevant biological topics)										
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Dudgeon OFTO	132 kV export cable system making landfall at Weybourne Hope on the coast of North Norfolk.	The Crown Estate	High	Operational																	
Dudgeon and Sheringham Shoal Extension OFTO	Joint export cable system, offshore and onshore, connecting to the national grid transmission network at Norwich Main substation.	The Crown Estate	High	Consented																	
East Anglia One OFTO	East Anglia One export cable consists of 2 cables.	The Crown Estate	High	Operational																	
East Anglia One North Transmission Assets	East Anglia One North export cable consists of 2 cables.	The Crown Estate	High	Consented																	
East Anglia Two Transmission Assets	East Anglia Two export cable is proposed for 2 cables.	The Crown Estate	High	Under Construction																	
East Anglia Three Transmission Assets	East Anglia three export cable is consented for up to 4 cables with no maximum capacity.	The Crown Estate	High	Under Construction																	
Endurance Carbon Capture	The Northern Endurance Partnership (NEP) is developing onshore and offshore infrastructure needed to transport CO ₂ from carbon capture projects across Teesside and the Humber – collectively known as the East Coast Cluster – to secure storage under the North Sea. The infrastructure includes a CO ₂ gathering network and onshore compression facilities as well as a 145 km offshore pipeline and subsea injection and monitoring facilities for the Endurance saline aquifer located around 1,000 m below the seabed. The infrastructure will transport and permanently store up to an initial 4 million tonnes of CO ₂ per year.	The Crown Estate	High	Under Construction																	
Erebus Transmission Asset	Up to two offshore export cables, up to 49 km in length and capacity of 66 kV, will link the array area to landfall at West Angle Bay Pembrokeshire.	The Crown Estate	High	Under Construction																	
Five Estuaries Transmission Asset	The Five Estuaries offshore export cables will make landfall between Holland-on-Sea and Frinton-on-Sea on the Essex coast. Up to 2 export cables with maximum voltage of 275 kV and stretching up to 196 km.	The Crown Estate	High	Consented																	
Galloper OFTO	Galloper OFTO consists of 2 export cables 45 km in length .	The Crown Estate	High	Operational																	

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Greater Gabbard OFTO	Greater Gabbard OFTO consists of 3 export cables with a capacity of 132 kV.	The Crown Estate	High	Operational																		
Gunfleet Sands OFTO	The Gunfleet Sands export cable connects Gunfleet Sands I, Gunfleet Sands II and Gunfleet Sands Demo to the electricity distribution network. 1 export cable with a capacity of 132 kV and a total length of 9 km.	The Crown Estate	High	Operational																		
Gwynt y Môr OFTO	Gwynt y Môr transmission consists of up to 4 cables with a total length of approximately 82.8 km and a capacity of 132 kV.	The Crown Estate	High	Operational																		
Hornsea 1 OFTO	Hornsea 1 transmission consists of 3 cables at a capacity of 254 kV.	The Crown Estate	High	Operational																		
Hornsea Project 2 OFTO	Hornsea 2 transmission consists of 3 cables at a capacity of 220 kV.	The Crown Estate	High	Operational																		
Hornsea 3 Transmission Asset	The offshore export cables will make landfall west of Weybourne in North Norfolk. Project lifetime of 35 years.	The Crown Estate	High	Under Construction																		
Hornsea Project 4 OFTO ⁵	Up to six offshore export cables making landfall south of Bridlington and connecting to the National Grid substation at Creyke Beck.	The Crown Estate	High	Consented/ Discontinued																		
Humber Gateway OFTO	Humber Gateway transmission consists of 2 cables at a capacity of 132 kV.	The Crown Estate	High	Operational																		
Inch Cape OFTO	2 export cables with a capacity of 220 kV approximately 85 km in length between the landfall point at Cockenzie in East Lothian and the development area.	The Crown Estate Scotland	High	Under Construction																		
Inner Dowsing Cable	Inner Dowsing transmission consists of 1 cable at a capacity of 36 kV.	The Crown Estate	High	Operational																		
Kentish Flats Cable	Kentish Flats consists of 3 export cables.	The Crown Estate	High	Operational																		
Lincs OFTO	Lincs transmission consists of 2 cables at a capacity of 132kV to a grid connection point at Warpole, Norfolk.	The Crown Estate	High	Operational																		
London Array OFTO	London Array export cable consists of up to 4 cables at a capacity of 150 kV.	The Crown Estate	High	Operational																		

⁵ Project is 'consented' and has been considered at the CEA screening stage. However, based upon publicly available information, there are no plans to develop this project in its current form, and no current programme is available. As such it has not been possible to consider the temporal overlap for this project in a meaningful way and has been screened out of further consideration, unless explicitly stated for individual topics.

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Lynn Cable	Lynn transmission consists of 1 cable at a capacity of 36 kV connected to the Middlemarsh onshore substation to the west of Skegness.	The Crown Estate	High	Operational																		
Morgan and Morecambe Offshore Windfarms Transmission Assets	Application for the co-ordinated transmission assets for the Morgan and Morecambe Offshore Wind Projects.	Morgan Offshore Wind Limited (Morgan OWL) and Morecambe Offshore Windfarm Ltd (Morecambe OWL)	High	Application submitted but not yet determined																		
Moray East OFTO	Moray East transmission consists of 3 cables at a capacity of 220 kV.	The Crown Estate Scotland	High	Operational																		
Moray West OFTO	2 export cables with a capacity of 132–400 kV.	The Crown Estate Scotland	High	Operational																		
Neart na Gaoithe OFTO	2 export cables with 220 kV capacity to landfall location at Thorntonloch Beach on the East Lothian coast.	The Crown Estate Scotland	High	Operational																		
Norfolk Boreas Transmission Asset	Up to 2 export cables with a capacity of 320 kV connecting to landfall at Happisburgh South.	The Crown Estate	High	Consented																		
Norfolk Vanguard East Transmission Asset	Up to 4 export cables making landfall at Happisburgh South, Norfolk.	The Crown Estate	High	Consented																		
Norfolk Vanguard West Transmission Asset	Up to 4 export cables making landfall at Happisburgh South, Norfolk.	The Crown Estate	High	Consented																		
North Falls Transmission Asset	North Falls transmission consists of up to 2 cable at a capacity of 275 kV.	The Crown Estate	High	Application submitted but not yet determined																		
North Hoyle Cable	2 export cables.	The Crown Estate	High	Operational																		
Ormonde OFTO	Ormonde transmission consists of 1 cable at a capacity of 132 kV.	The Crown Estate	High	Operational																		
Outer Dowsing Transmission Asset	Up to 4 export cable with a capacity of 275 kV making landfall at Wolla Bank, south of Anderby Creek.	The Crown Estate	High	Application submitted but not yet determined																		
Race Bank OFTO	2 export cables 71 km in length.	The Crown Estate	High	Operational																		

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Rampion Transmission Assets	2 export cables 16 km in length.	The Crown Estate	High	Operational																		
Rampion 2 Transmission Assets	Up to 4 export cables at a capacity of 275 kV.	The Crown Estate	High	Consented																		
Rhyl Flats Cable	3 export cables.	The Crown Estate	High	Operational																		
Robin Rigg Offshore Export Cable Route	Robin Rigg transmission consists of 2 cables at a capacity of 132 kV.	The Crown Estate	High	Operational																		
Scroby Sands Cable	Scroby Sands consists of 3 export cable with a capacity of 33 kV.	The Crown Estate	High	Operational																		
Seagreen Phase 1 OFTO	Consented up to 6 export cables with no maximum capacity.	The Crown Estate Scotland	High	Operational																		
Seagreen Phase 1A OFTO	Consent includes an export cable approximately 110 km in length to a landfall location at Cockenzie.	The Crown Estate Scotland	High	Consented																		
Sheringham Shoal OFTO	Two 132 kV export cables approximately 22 km in length with landfall at Weybourne.	The Crown Estate	High	Operational																		
Sofia Transmission Assets	Two 220 km long export cables with landfall point at between Redcar and Narske-by-the-Sea.	The Crown Estate	High	Under Construction																		
Teesside Transmission Assets	Teesside transmission consists of 2 cables at a capacity of 33kV.	The Crown Estate	High	Operational																		
Thanet OFTO	Thanet export cable consists of 2 cables 26.2 km in length.	The Crown Estate	High	Operational																		
Triton Knoll Transmission Asset	Two 220 kV export cables approximately 50 km in length.	The Crown Estate	High	Operational																		
Walney 1 OFTO	Walney 1 transmission consists of 1 cable at a capacity of 132 kV.	The Crown Estate	High	Operational																		
Walney 2 OFTO	Walney 2 transmission consists of 1 cable at a capacity of 132 kV.	The Crown Estate	High	Operational																		
Walney Extension OFTO	Walney Extension transmission consists of 2 cables at a capacity of 220 kV.	The Crown Estate	High	Operational																		
West of Duddon Sands OFTO	West of Duddon Sands transmission consists of 2 cables at a capacity of 170 kV and approximately 41 km in length.	The Crown Estate	High	Operational																		
Westermmost Rough OFTO	Westermmost Rough transmission consists of 1 cable at a capacity of 170 kV with a route length of approximately 11.8 km.	The Crown Estate	High	Operational																		

											Construction window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Tier 3																						
Morven Hawthorn Pit Grid Connection Project	Consists of the onshore and offshore infrastructure associated with the Morven Offshore Wind Farm. Up to 6 export cables with a capacity of 525 kV.	Morven Offshore Wind Limited	High	Pre-Application																		
Ossian Transmission Infrastructure	Up to 6 export cables with a maximum total length of offshore cable route of 509 km. Anticipated application submission in the latter half of 2026. Operational lifetime 35 years.	Ossian Offshore Wind Farm Limited	High	Pre-Application																		
Tier 4																						
Acorn Carbon Capture	Acorn CCS is a phased carbon capture and storage (CCS) development project in the north-east of Scotland.	The Crown Estate Scotland	High	Pre-Planning																		

A1.2 Offshore Energy Spatial Screening Matrix

a	Included as part of the topic baseline and hence not considered within the cumulative impact assessment: Screened out of assessment.
b	Part of the baseline but has an ongoing impact and is therefore considered relevant to the cumulative impact assessment: Screened in to assessment.
c	Potential cumulative impact exists: Screened in to assessment.
d	No conceptual effect-receptor pathway: Screened out of assessment.
e	Low data confidence or availability: Screened out of assessment.
f	No physical effect-receptor overlap: Screened out of assessment.
g	No temporal overlap: Screened out of assessment.

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Offshore Wind Farms																
United Kingdom																
Tier 1																
Bowdun Onshore Infrastructure	50.37	0.00	f	d	d	d	a	f	d	d	f	d	d	d	d	c
Tier 2																
Aberdeen Offshore Wind Farm	38.60	34.71	c	c	c	a	b	a	b	a	f	f	a	a	a	b
Aspen Offshore Wind Farm	88.37	102.23	f	d	c	c	c	c	c	c	f	f	d	d	c	c
Awel y Môr Offshore Wind Farm	404.81	377.89	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Ayre Offshore Wind Farm	192.87	201.77	f	d	f	c	c	c	c	d	f	f	d	d	f	c
Barrow Offshore Wind Farm	343.44	316.99	f	d	f	f	d	d	b	d	f	f	d	d	f	c
Beatrice Offshore Wind Farm	153.88	154.85	f	d	f	a	b	c	b	d	f	f	d	d	f	b
Berwick Bank Wind Farm	46.53	47.70	f	c	c	c	c	c	c	c	f	f	c	d	c	c
Blyth Demo Offshore Wind Farm Phase 1	194.76	190.95	f	d	f	a	b	d	b	d	f	f	d	d	f	b
Blyth Demo Phase 2	185.47	185.47	f	d	f	a	c	d	c	d	f	f	d	d	f	c
Buchan Offshore Wind Farm	131.73	142.09	f	d	f	c	c	d	c	d	f	f	d	d	f	c
Burbo Bank	395.19	371.33	f	d	f	f	d	d	b	d	f	f	d	d	f	b
Burbo Bank Extension	395.82	371.71	f	d	f	f	d	d	b	d	f	f	d	d	f	b

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Caledonia Offshore Wind Farm North	136.29	142.03	f	d	f	c	c	c	c	d	f	f	d	d	f	c
Caledonia Offshore Wind Farm South	121.35	126.87	f	d	f	c	c	c	c	d	f	f	d	d	f	c
Cenos Offshore Windfarm	149.39	167.54	f	d	f	c	c	c	c	d	f	f	d	d	f	c
Culzean Floating Offshore Wind Turbine Pilot Project	185.50	203.81	f	d	f	b	d	d	c	d	f	f	d	d	f	c
Dogger Bank A (formerly Creyke Beck A)	295.29	305.54	f	d	f	a	c	d	c	d	f	f	d	d	f	c
Dogger Bank B (Formerly Creyke Beck B)	269.36	279.70	f	d	f	a	c	d	c	d	f	f	d	d	f	c
Dogger Bank C (Formerly Teesside A)	313.37	324.63	f	d	f	a	c	d	c	d	f	f	d	d	f	c
Dogger Bank South East	316.71	326.90	f	d	f	c	c	d	c	d	f	f	d	d	f	c
Dogger Bank South West	291.47	301.48	f	d	f	c	c	d	c	d	f	f	d	d	f	c
Dudgeon Offshore Wind Farm	433.91	443.02	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Dudgeon Extension	425.83	434.83	f	d	f	f	c	d	c	d	f	f	d	d	f	c
East Anglia One	566.19	575.58	f	d	f	f	b	d	b	d	f	f	d	d	f	b
East Anglia One North	550.23	559.58	f	d	f	f	c	d	c	d	f	f	d	d	f	c
East Anglia Two	557.06	566.25	f	d	f	f	c	d	c	d	f	f	d	d	f	c
East Anglia Three	531.16	540.86	f	d	f	f	c	d	c	d	f	f	d	d	f	c
Erebus Floating Wind Demo	660.14	627.58	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Five Estuaries Offshore Wind Farm	590.34	599.37	f	d	f	f	c	d	c	d	f	f	d	d	f	c
Forthwind Demonstration Project	126.27	83.53	f	d	g	g	d	d	g	g	f	f	d	d	g	c
Galloper	586.42	595.40	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Greater Gabbard	587.29	596.22	f	d	f	f	b	d	b	d	f	f	d	d	f	b

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Green Volt Offshore Wind Farm (INTOG Site 6 Flotation Energy)	92.16	103.35	f	d	c	a	c	d	c	c	f	f	d	d	f	c
Gunfleet Sands I	596.97	605.15	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Gunfleet Sands II	598.32	606.61	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Gunfleet Sands Demo	600.28	608.30	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Gwynt y Môr Offshore Wind Farm	402.92	376.60	f	d	f	f	d	d	b	d	f	f	d	d	f	b
Hornsea One	385.62	395.40	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Hornsea Project Two	374.05	383.79	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Hornsea Project Three	393.37	403.39	f	d	f	f	c	d	c	d	f	f	d	d	f	c
Hornsea Project Four	340.09	349.44	f	d	f	d	c ⁶	d	d	d	f	f	d	d	f	d
Humber Gateway	374.10	382.22	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Hywind Scotland Wind Farm (Buchan Deep Demo)	44.43	54.73	f	c	c	a	b	a	b	a	f	f	a	a	a	b
Inch Cape Offshore Wind Farm	56.03	23.40	f	c	d	a	c	c	c	c	f	f	c	d	a	c
Inner Dowsing Offshore Wind Farm	425.49	433.34	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Kentish Flats	624.25	631.29	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Kentish Flats Extension	624.13	631.07	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Kincardine Offshore Windfarm	20.14	7.63	c	c	c	a	b	a	b	a	f	f	a	a	a	b
Lincs	422.90	430.90	f	d	f	f	b	d	b	d	f	f	d	d	f	b
London Array	607.17	615.72	f	d	f	f	b	d	b	d	f	f	d	d	f	b

⁶ Project is 'consented' and has been considered at the CEA screening stage. However, based upon publicly available information, there are no plans to develop this project in its current form, and no current programme is available. As such it has not been possible to consider the temporal overlap for this project in a meaningful way and has been screened out of further consideration, unless explicitly stated for individual topics (e.g. for ornithology as mortality numbers for the Hornsea has been included in PVA modelling).

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Lynn Offshore Wind Farm	432.58	440.30	f	d	f	f	b	d	b	d	f	f	d	d	f	b
MarramWind Offshore Wind Farm	112.04	123.12	f	d	f	c	c	d	c	d	f	f	d	d	f	c
Methil Demo (Levenmouth Demonstration Turbine)	126.29	83.24	f	d	g	g	g	d	b	a	f	f	d	d	g	b
Mona Offshore Wind Project	369.32	337.42	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Moray Offshore Windfarm (East)	138.55	143.71	f	d	f	a	b	a	b	d	f	f	d	d	f	b
Moray Offshore Windfarm (West)	143.99	143.00	f	d	f	a	b	a	c	d	f	f	d	d	f	b
Morecambe Offshore Windfarm Generation Assets	366.78	339.50	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Morgan Offshore Wind Project Generation Assets	353.03	320.62	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Muir Mhòr Offshore Wind Farm	52.50	66.47	f	d	c	c	c	c	c	c	f	f	c	d	c	c
Nearrt na Gaoithe Offshore Wind	80.49	51.16	f	d	a	a	b	d	b	a	f	f	d	d	c	b
Norfolk Boreas Offshore Wind Farm	494.38	504.42	f	d	f	f	c	d	c	d	f	f	d	d	f	c
Norfolk Vanguard East	511.67	521.46	f	d	f	f	c	d	c	d	f	f	d	d	f	c
Norfolk Vanguard West	496.63	506.37	f	d	f	f	c	d	c	d	f	f	d	d	f	c
North Falls Offshore Wind Farm	583.14	592.05	f	d	f	f	c	d	c	d	f	f	d	d	f	c
North Hoyle Offshore Wind Farm	407.25	381.86	f	d	f	f	g	d	b	d	f	f	d	d	f	b
Ormonde	336.46	308.47	f	d	f	f	d	d	b	d	f	f	d	d	f	b
Ossian Offshore Wind Farm	25.36	40.14	c	c	c	c	c	c	c	c	f	f	c	d	c	c
Outer Dowsing Offshore Wind	396.96	406.07	f	d	f	f	c	d	c	d	f	f	d	d	f	c
Pentland Floating Offshore Wind	228.04	222.69	f	d	f	f	c	c	c	d	f	f	d	d	f	c
Race Bank Offshore Wind Farm	418.83	427.47	f	d	f	f	b	d	b	d	f	f	d	d	f	b

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Rampion	693.06	690.73	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Rampion 2	694.43	691.26	f	d	f	f	c	d	c	d	f	f	d	d	f	c
Rhyl Flats	416.07	389.17	f	d	f	f	d	d	b	d	f	f	d	d	f	b
Robin Rigg East	275.06	241.25	f	d	f	f	d	d	b	d	f	f	d	d	f	b
Robin Rigg West	278.56	244.59	f	d	f	f	d	d	b	d	f	f	d	d	f	b
Salamander Offshore Wind Farm	58.68	69.52	f	d	c	c	c	c	c	c	f	f	c	d	c	c
Scroby Sands	512.18	521.29	f	d	f	f	g	d	b	d	f	f	d	d	f	b
Seagreen 1 Offshore Wind Farm	27.87	19.88	c	c	c	a	b	a	b	a	f	f	a	a	c	b
Seagreen 1A Project	36.30	19.47	c	c	c	a	c	c	c	c	f	f	c	a	c	c
Sheringham Shoal	442.31	451.13	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Sheringham Shoal Extension	435.18	444.05	f	d	f	f	c	d	c	d	f	f	d	d	f	c
Sofia Offshore Wind Farm (Formerly Dogger Bank Teesside B)	293.22	303.78	f	d	f	a	c	d	c	d	f	f	d	d	f	c
Teesside	250.26	249.31	f	d	f	a	b	d	b	d	f	f	d	d	f	b
Thanet	634.92	643.46	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Triton Knoll	397.15	405.84	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Twin Hub (Wave Hub)	776.24	746.00	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Walney 1	341.92	313.35	f	d	f	f	d	d	b	d	f	f	d	d	f	b
Walney 2	339.15	309.58	f	d	f	f	d	d	b	d	f	f	d	d	f	b
Walney Extension 3	341.08	309.87	f	d	f	f	d	d	b	d	f	f	d	d	f	b
Walney Extension 4	341.42	310.91	f	d	f	f	d	d	b	d	f	f	d	d	f	b

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
West of Duddon Sands	344.66	317.01	f	d	f	f	d	d	b	d	f	f	d	d	f	b
West of Orkney Wind Farm	251.46	246.29	f	d	f	f	c	d	c	d	f	f	d	d	f	c
Westermmost Rough	353.17	361.17	f	d	f	f	b	d	b	d	f	f	d	d	f	b
Tier 3																
Arven Offshore Wind Farm	352.16	362.94	f	d	f	c	e	d	c	d	f	f	d	d	f	c
Bellrock Offshore Wind Farm	62.23	79.55	f	d	c	c	e	c	c	c	f	f	d	d	c	c
Broadshore Offshore Wind Farms	120.09	128.93	f	d	f	a	e	c	c	d	f	f	d	d	f	c
Dogger Bank D	319.71	331.23	f	d	f	c	e	d	c	d	f	f	d	d	f	c
Havbredey Offshore Wind Farm	303.20	284.98	f	d	f	f	e	d	c	d	f	f	d	d	f	c
Machairwind Offshore Wind Farm	319.51	267.30	f	d	f	f	e	d	c	d	f	f	d	d	f	c
Morven North Offshore Wind Farm	10.03	22.20	c	c	c	c	e	c	c	c	f	f	c	d	c	c
Morven South Offshore Wind Farm	43.61	53.83	c	c	c	c	e	c	c	c	f	f	c	d	c	c
Scaraben Offshore Wind Farm	125.19	134.69	f	d	f	c	e	c	c	d	f	f	d	d	f	c
Sinclair Offshore Wind Farm	128.11	137.39	f	d	f	c	e	d	c	d	f	f	d	d	f	c
Spiorad na Mara	345.58	314.08	f	d	f	f	e	d	c	d	f	f	d	d	f	c
Stromar	153.38	161.99	f	d	f	c	e	c	c	d	f	f	d	d	f	c
Stoura Offshore Wind	381.15	391.89	f	d	f	c	e	d	c	d	f	f	d	d	f	c
Talisk Offshore Wind Project	346.58	322.07	f	d	f	f	e	d	c	d	f	f	d	d	f	c
Tier 4																
Beech Offshore Wind Farm	189.50	207.09	f	d	f	c	e	d	c	d	f	f	d	d	f	c
Cedar	104.26	122.51	f	d	f	c	e	c	c	d	f	f	d	d	f	c

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Floating Offshore Wind Leasing Round 5 - Project Development Area 2	690.11	658.10	f	d	f	g	e	d	c	d	f	f	d	d	f	c
Floating Offshore Wind Leasing Round 5 - Project Development Area 3	699.05	668.85	f	d	f	g	e	d	c	d	f	f	d	d	f	c
Flora Floating Wind Farm	46.83	57.79	f	c	c	g	e	d	c	c	f	f	c	d	g	c
Gwynt Glas Floating Offshore Wind Farm	667.31	635.10	f	d	f	g	e	d	c	d	f	f	d	d	f	c
Judy (HE Project)	212.25	229.40	f	d	f	g	e	c	c	d	f	f	d	d	f	c
Malin Sea Wind Offshore Wind Farm	358.19	306.98	f	d	f	f	e	d	c	d	f	f	d	d	f	c
Ireland																
Tier 2																
Arklow Bank Wind Park Phase 1	540.68	503.66	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Arklow Bank Wind Park Phase 2	528.10	490.86	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Codling Wind Park	502.03	464.40	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Dublin Array Offshore Wind Farm	490.64	451.82	f	d	f	f	f	d	c	d	f	f	d	d	f	c
North Irish Sea Array (NISA)	436.88	395.98	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Oriel Wind Farm	439.36	397.10	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Tier 3																
Emerald Floating Windfarm	715.31	672.95	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Inis Ealga Marine Energy Park	662.85	621.68	f	d	f	f	f	d	c	d	f	f	d	d	f	c
North Celtic Sea Offshore Wind Farm	642.20	603.11	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Tier 4																
Clogher Head Offshore Wind Farm	445.49	404.28	f	d	f	f	f	d	e	d	f	f	d	d	f	e

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Cooley Point Offshore Wind Farm	435.61	393.20	f	d	f	f	f	d	e	d	f	f	d	d	f	e
Kilmichael Point	538.87	502.45	f	d	f	f	f	d	e	d	f	f	d	d	f	e
Setanta offshore wind project	437.78	396.16	f	d	f	f	f	d	e	d	f	f	d	d	f	e
South Irish Sea Project	535.84	499.66	f	d	f	f	f	d	e	d	f	f	d	d	f	e
Belgium																
Tier 2																
Belwind Offshore Wind Project	637.81	647.13	f	d	f	f	f	d	b	d	f	f	d	d	f	b
C-Power Offshore Wind Farm (Thornton Bank)	655.68	665.00	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Noblewind Offshore Wind Project	636.90	646.22	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Norther Offshore Wind Farm	657.32	666.71	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Northwester 2	636.40	645.70	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Northwind	646.85	656.20	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Rentel Offshore Wind Project	650.68	660.04	f	d	f	f	f	d	b	d	f	f	d	d	f	b
SeaMade Offshore Wind Project	643.82	653.16	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Denmark																
Tier 2																
Horns Rev I	580.94	597.50	f	d	f	f	f	a	b	d	f	f	d	d	f	b
Horns Rev II	562.60	579.24	f	d	f	b	f	a	b	d	f	f	d	d	f	b
Horns Rev III	557.68	574.50	f	d	f	a	f	a	b	d	f	f	d	d	f	b
Jammerbugt offshore park	618.13	636.44	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Nissum Bredning	576.10	594.03	f	d	f	a	f	a	b	d	f	f	d	d	f	b
Rønland Offshore Wind Farm	574.88	592.82	f	d	f	b	f	d	b	d	f	f	d	d	f	b

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Thor - 2020 Tender	532.46	549.88	f	d	f	f	f	c	b	d	f	f	d	d	f	b
Vesterhav Nord	563.25	581.16	f	d	f	a	f	a	b	d	f	f	d	d	f	b
Vesterhav Syd	569.57	586.98	f	d	f	a	f	a	b	d	f	f	d	d	f	b
Tier 4																
Jyske Banke Nord	460.32	478.36	f	d	f	c	f	d	c	d	f	f	d	d	f	c
Nordsøen I - A1	540.27	557.30	f	d	f	c	f	d	c	d	f	f	d	d	f	c
Nordsøen I - A2	530.39	547.60	f	d	f	c	f	d	c	d	f	f	d	d	f	c
Nordsøen I - A3	523.04	540.39	f	d	f	a	f	d	c	d	f	f	d	d	f	c
Nordsren II	476.89	493.72	f	d	f	e	f	d	e	d	f	f	d	d	f	b
Nordsren II vest	470.79	486.85	f	d	f	e	f	d	e	d	f	f	d	d	f	b
Nordsren III	460.69	478.49	f	d	f	e	f	d	e	d	f	f	d	d	f	b
Nordsren III vest	406.56	424.06	f	d	f	e	f	d	e	d	f	f	d	d	f	b
France																
Tier 2																
Courseulles-sur-mer	824.74	819.10	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Dieppe Le Tréport	761.95	766.72	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Dunkirk Offshore Wind Farm (Dunkerque)	678.11	687.07	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Fécamp Offshore Wind Farm	778.63	778.33	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Saint-Brieuc	891.13	875.52	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Tier 4																
Centre-Manche 1	773.78	768.13	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Centre-Manche 2	772.44	767.37	f	d	f	f	f	d	c	d	f	f	d	d	f	c

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Germany																
Tier 2																
Albatros Offshore Wind Farm	540.74	554.70	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Alpha Ventus	592.28	605.62	f	d	f	b	f	d	b	d	f	f	d	d	f	b
Amrumbank West Offshore Wind Farm	617.70	632.68	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Bard Offshore 1	533.54	547.06	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Borkum Riffgrund 1	588.77	601.97	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Borkum Riffgrund 2	585.69	598.82	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Borkum Riffgrund 3	562.62	575.60	f	d	f	a	f	d	c	d	f	f	d	d	f	c
Butendiek	597.52	613.37	f	d	f	a	f	a	b	d	f	f	d	d	f	b
Dan Tysk	555.32	571.24	f	d	f	a	f	a	b	d	f	f	d	d	f	b
Deutsche Bucht	528.82	541.99	f	d	f	a	f	d	b	d	f	f	d	d	f	b
GlobalTech I	544.15	558.29	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Gode Wind 01	607.93	621.63	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Gode Wind 02	606.09	619.83	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Gode Wind 3	614.09	627.95	f	d	f	a	f	d	b	d	f	f	d	d	f	b
He Dreiht Offshore Wind Farm	540.66	554.44	f	d	f	a	f	d	c	d	f	f	d	d	f	c
Hohe See	546.01	559.94	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Kaskasi II Offshore-Windpark	619.99	634.91	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Meerwind Sued/Ost	626.03	640.76	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Merkur Offshore (MEG Offshore I)	584.92	598.35	f	d	f	a	f	d	b	d	f	f	d	d	f	b

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Nordergründe	687.58	701.73	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Nordlicht I (N-7.2)	547.60	561.15	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Nordlicht II (N-6.6)	536.06	549.23	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Nordsee One	602.26	615.68	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Nordsee Ost	621.50	636.36	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Nordseecluster A - NC 1 (N-3.7)	613.82	627.52	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Nordseecluster A - NC 2 (N-3.8)	599.61	613.27	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Nordseecluster B - NC 3 (N-3.5)	600.17	613.78	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Nordseecluster B - NC 4 (N-3.6)	595.73	609.33	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Riffgat	607.18	619.76	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Sandbank	531.69	547.52	f	d	f	a	f	a	b	d	f	f	d	d	f	b
Trianel Windpark Borkum Phase 1	578.50	591.82	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Trianel Windpark Borkum Phase 2	580.36	593.63	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Veja Mate	530.74	544.06	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Tier 4																
Dreekant	507.9	522.6	f	d	f	c	f	d	c	d	f	f	d	d	f	c
N-10.1	524.09	538.15	f	d	f	f	f	d	e	d	f	f	d	d	f	e
N-10.2	508.08	522.30	f	d	f	f	f	d	e	d	f	f	d	d	f	e
Nordsee Energies 1	509.3	523.6	f	d	f	c	f	d	c	d	f	f	d	d	f	c
Nordsee Energies 2	516.4	531.3	f	d	f	c	f	d	c	d	f	f	d	d	f	c
Nordee Energies 3	508.67	522.59	f	d	f	c	f	d	c	d	f	f	d	d	f	c

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Oceanbeat East	524.2	538.9	f	d	f	a	f	d	c	d	f	f	d	d	f	c
Oceanbeat West	507.8	522.3	f	d	f	a	f	d	c	d	f	f	d	d	f	c
Waterekke (N-9.3)	509.80	523.35	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Waterkant offshore wind farm (N-6.7)	526.82	539.99	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Windbostel Ost (N-9.1)	517.45	531.10	f	d	f	c	f	d	c	d	f	f	d	d	f	c
Windbostel West (N-9.2)	516.60	530.48	f	d	f	c	f	d	c	d	f	f	d	d	f	c
Netherlands																
Tier 2																
Borssele 1 & 2 Wind Farm	635.23	644.70	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Borssele III & IV Wind Farm	632.98	642.30	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Borssele V Offshore Wind Farm	642.37	651.79	f	d	f	f	f	d	b	d	f	f	d	d	f	b
ECOWENDE Windpark Hollandse Kust West (HKW Kavel VI)	564.51	574.66	f	d	f	f	f	d	c	d	f	f	d	d	f	c
Eneco Luchterduinen Wind Farm	611.04	621.15	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Gemini Wind Park	549.56	562.27	f	d	f	a	f	d	b	d	f	f	d	d	f	b
Hollandse Kust Noord Wind Farm (Site V)	582.89	593.15	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Hollandse Kust Zuid Wind Farm (HKZ Kavel I to IV)	607.03	617.07	f	d	f	f	f	d	b	d	f	f	d	d	f	b
IJmuiden Ver Wind Farm Alpha	530.98	541.09	f	d	f	f	f	d	c	d	f	f	d	d	f	c
IJmuiden Ver Wind Farm Beta	530.98	541.09	f	d	f	f	f	d	c	d	f	f	d	d	f	c
NoordzeeWind Offshore Wind Farm (Egmond aan Zee)	600.05	610.28	f	d	f	f	f	d	b	d	f	f	d	d	f	b
OranjeWind (HKW Kavel VII)	568.77	578.84	f	d	f	f	f	d	c	d	f	f	d	d	f	c

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Princess Amalia Wind Farm	596.00	606.18	f	d	f	f	f	d	b	d	f	f	d	d	f	b
Tier 4																
IJmuiden Ver Gamma A (IJmuiden Ver Noord (IJ-Ver-n))	525.13	535.30	f	d	f	f	f	d	e	d	f	f	d	d	f	e
IJmuiden Ver Gamma B (IJmuiden Ver Noord (IJ-Ver-n))	525.13	535.30	f	d	f	f	f	d	e	d	f	f	d	d	f	e
Nederwiek I-A (Gebied 1 Zuid (1-z))	493.40	503.45	f	d	f	f	f	d	e	d	f	f	d	d	f	e
Nederwiek I-B (Gebied 1 Zuid (1-z))	493.40	503.45	f	d	f	f	f	d	e	d	f	f	d	d	f	e
Nederwiek II and III (Gebied 1 Noord (1-n))	467.40	477.60	f	d	f	f	f	d	e	d	f	f	d	d	f	e
Ten Noorden van de Waddeneilanden	524.08	536.06	f	d	f	a	f	d	e	d	f	f	d	d	f	e
Sweden																
Tier 2																
Energy Park Vidar	728.67	747.06	f	d	f	c	f	d	c	d	f	f	d	d	f	c
Mareld Floating Offshore Wind Farm	728.67	747.06	f	d	f	c	f	d	c	d	f	f	d	d	f	c
Poseidon Wind Power Project	728.67	747.06	f	d	f	c	f	d	c	d	f	f	d	d	f	c
Tidal Farms																
United Kingdom																
Tier 2																
Bluemull Sound (Shetland)	405.75	416.01	f	d	f	a	d	d	a	d	f	f	d	d	f	a
Deer Sound, Orkney	227.48	235.11	f	d	f	f	d	d	a	d	f	f	d	d	f	a
EMEC Fall of Warness - 4614	244.24	252.11	f	d	f	f	d	d	a	d	f	f	d	d	f	a
EMEC Islay Demonstration Zone	340.29	288.26	f	d	f	f	d	d	a	d	f	f	d	d	f	a
EMEC Shapinsay Sound	232.19	239.76	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Holyhead Deep	454.46	420.89	f	d	f	f	d	d	a	d	f	f	d	d	f	a

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Inner Sound (MeyGen Phase 1)	203.91	208.87	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Milford Haven Estuary (Marine Energy Test Area (META) Phase 2) - Warrior Way	621.85	591.65	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Morlais Tidal Demonstration Zone	448.39	415.31	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Perpetuus Tidal Energy Centre (PTEC)	705.41	696.87	f	d	f	d	d	d	c	d	f	f	d	d	f	c
Sound of Islay Turbine Installation	311.01	259.06	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Strangford Lough at Portaferry & Marlfield Bay	380.68	337.77	f	d	f	f	d	d	a	d	f	f	d	d	f	a
West Islay Tidal Energy Park	346.48	294.56	f	d	f	g	d	d	c	d	f	f	d	d	f	c
Tier 3																
Ness of Duncansby	201.53	206.97	f	d	f	g	d	d	c	d	f	f	d	d	f	c
Òran na Mara	308.96	256.86	f	d	f	g	d	d	c	d	f	f	d	d	f	c
Westray South	248.49	256.30	f	d	f	g	d	d	c	d	f	f	d	d	f	c
Tier 4																
Colwyn Bay Tidal Lagoon	426.18	399.21	f	d	f	g	d	d	e	d	f	f	d	d	f	e
EMEC Stronsay Firth Demonstration Site	234.02	242.00	f	d	f	g	d	d	e	d	f	f	d	d	f	e
Inner Sound (MeyGen Phase 2)	203.91	208.87	f	d	f	g	d	d	e	d	f	f	d	d	f	e
Yell Sound Array	381.75	391.90	f	d	f	g	d	d	e	d	f	f	d	d	f	e
Wave Farms																
United Kingdom																
Tier 2																
Bilia Croo (near Stromness)	241.52	246.34	f	d	f	f	d	d	a	d	f	f	d	d	f	a
EMEC Scapa Flow	222.78	229.89	f	d	f	f	d	d	a	d	f	f	d	d	f	a

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Falmouth Bay Test Site (FaBTest)	791.11	764.56	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Folkecenter Wave Test Station (Nissum Bredning Test Station for Wave energy)	582.60	600.56	f	d	f	a	d	d	a	d	f	f	d	d	f	a
Lysekil wave energy research test site	763.25	781.63	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Milford Haven Estuary (META Phase 2) - Dale Roads	625.58	594.47	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Milford Haven Estuary (META Phase 2) - East Pickard Bay	630.16	599.28	f	d	f	f	d	d	a	d	f	f	d	d	f	a
QUB Wave Test Site	380.70	337.80	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Seabed at Pembroke Dock (META Phase 1)	622.75	593.42	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Tier 4																
South Pembrokeshire Demonstration Zone	650.55	620.95	f	d	f	d	d	d	c	d	f	f	d	d	f	c
Tier 4																
Harris Demonstration Zone	356.86	316.30	f	d	f	f	d	d	e	d	f	f	d	d	f	e
Denmark																
Tier 2																
Danish Wave Energy Center (DanWEC)	588.41	606.62	f	d	f	a	d	d	a	d	f	f	d	d	f	a
Other - Offshore Export Cable Route and Carbon Capture and Storage (CCS)																
United Kingdom																
Tier 2																
Awel y Môr Offshore Export Cable	411.18	383.88	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Awel y Môr OWF Cable Crossing	422.82	397.42	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Barrow OFTO	334.60	311.31	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Beatrice OFTO	159.13	162.26	f	d	f	a	d	d	a	d	f	f	d	d	f	a

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Berwick Bank OFTO	46.53	47.70	f	c	c	c	d	d	c	c	f	f	c	d	c	c
Blyth Demo Phase 1 Export Cable	194.76	189.63	f	d	f	a	d	d	a	d	f	f	d	d	f	a
Burbo Bank Cable	397.30	373.73	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Burbo Bank Extension Export Cable	401.23	376.51	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Caledonia Offshore Wind Farm North Export Cable Route	99.24	96.84	f	d	d	c	d	d	c	f	f	f	d	d	f	c
Caledonia Offshore Wind Farm South Export Cable Route	99.24	96.84	f	d	d	c	d	d	c	f	f	f	d	d	f	c
Dogger Bank A OFTO	287.48	297.36	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Dogger Bank B OFTO	282.61	292.96	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Dogger Bank C Transmission Assets	253.70	255.73	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Dudgeon OFTO	429.23	438.30	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Dudgeon and Sheringham Shoal Extension OFTO	441.83	450.92	f	d	f	f	d	d	c	d	f	f	d	d	f	c
East Anglia One OFTO	569.08	578.04	f	d	f	f	d	d	a	d	f	f	d	d	f	a
East Anglia One North Transmission Assets	549.97	559.04	f	d	f	f	d	d	c	d	f	f	d	d	f	c
East Anglia Two Transmission Assets	549.97	559.04	f	d	f	f	d	d	c	d	f	f	d	d	f	c
East Anglia Three Transmission Assets	541.12	550.78	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Endurance Carbon Capture	250.75	250.95	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Erebus Transmission Asset	627.97	596.98	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Five Estuaries Transmission Asset	585.42	594.02	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Galloper OFTO	556.06	564.87	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Greater Gabbard OFTO	556.12	564.93	f	d	f	f	d	d	a	d	f	f	d	d	f	a

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Gunfleet Sands OFTO	590.43	598.61	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Gwynt y Môr OFTO	409.53	383.17	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Hornsea 1 OFTO	386.65	393.74	f	d	f	a	d	d	a	d	f	f	d	d	f	a
Hornsea Project 2 OFTO	386.20	393.16	f	d	f	a	d	d	a	d	f	f	d	d	f	a
Hornsea 3 Transmission Asset	407.66	417.73	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Hornsea Project 4 OFTO	324.90	332.30	f	d	f	f	d	d	f	d	f	f	d	d	f	f
Humber Gateway OFTO	373.60	381.05	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Inch Cape OFTO	65.87	35.14	f	c	d	c	d	d	c	c	f	f	d	d	c	c
Inner Dowsing Cable	427.50	435.32	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Kentish Flats Cable	627.91	635.10	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Lincs OFTO	434.97	442.94	f	d	f	f	d	d	a	d	f	f	d	d	f	a
London Array OFTO	619.06	627.46	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Lynn Cable	429.70	437.11	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Morgan and Morecambe Offshore Windfarms Transmission Assets	353.03	320.62	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Moray East OFTO	97.74	95.71	f	d	a	a	d	d	a	d	f	f	d	d	a	a
Moray West OFTO	148.67	146.79	f	d	f	c	d	d	a	d	f	f	d	d	f	a
Neart na Gaoithe OFTO	86.23	58.26	f	d	a	a	d	d	c	a	f	f	d	d	c	c
Norfolk Boreas Transmission Asset	484.57	493.56	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Norfolk Vanguard East Transmission Asset	489.51	498.55	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Norfolk Vanguard West Transmission Asset	489.51	498.55	f	d	f	f	d	d	c	d	f	f	d	d	f	c

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
North Falls Transmission Asset	587.05	595.65	f	d	f	f	d	d	c	d	f	f	d	d	f	c
North Hoyle Cable	409.84	384.46	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Ormonde OFTO	332.41	309.20	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Outer Dowsing Transmission Asset	396.96	406.07	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Race Bank OFTO	423.44	432.04	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Rampion Transmission Assets	680.30	677.51	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Rampion 2 Transmission Assets	680.80	676.58	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Rhyl Flats Cable	418.31	391.38	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Robin Rigg Offshore Export Cable Route	278.55	244.98	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Scroby Sands Cable	514.88	523.98	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Seagreen Phase 1 OFTO	40.48	32.37	f	c	c	a	d	d	a	a	f	f	d	d	c	a
Seagreen Phase 1A OFTO	42.87	28.05	f	c	c	c	d	d	c	c	f	f	d	d	c	c
Sheringham Shoal OFTO	449.70	458.54	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Sofia Transmission Assets	252.96	255.73	f	d	f	f	d	d	c	d	f	f	d	d	f	c
Teesside Transmission Assets	252.34	251.45	f	d	f	a	d	d	a	d	f	f	d	d	f	a
Thanet OFTO	639.76	648.28	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Triton Knoll Transmission Asset	405.65	414.36	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Walney 1 OFTO	334.52	311.22	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Walney 2 OFTO	340.85	312.03	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Walney Extension OFTO	337.30	313.86	f	d	f	f	d	d	a	d	f	f	d	d	f	a
West of Duddon Sands OFTO	337.03	313.59	f	d	f	f	d	d	a	d	f	f	d	d	f	a

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Westermost Rough OFTO	357.20	364.68	f	d	f	f	d	d	a	d	f	f	d	d	f	a
Tier 3																
Morven Hawthorn Pit Grid Connection Project	1.81	17.41	f	c	c	c	d	d	c	c	f	c	d	d	c	c
Ossian Transmission Infrastructure	25.28	40.03	f	c	c	c	d	d	c	c	f	f	d	d	c	c
Tier 4																
Acorn Carbon Capture	104.22	114.95	f	d	f	e	d	d	c	d	f	f	d	d	f	c

A2 Offshore Cumulative Effects Matrix - Aggregate and Disposal

A2.1 Aggregate and Disposal Temporal Screening Matrix

	Consenting/Pre-Construction
	Under Construction
	Operation and Maintenance
	Decommissioning

										Construction Window											
										Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
United Kingdom - Dredge Soil Disposal Sites within 100 km of the Proposed Development																					
Tier 2																					
Aberdeen	Disposal site	Marine Scotland	High	Open																	
Anstruther	Disposal site	Marine Scotland	High	Open																	
Arbroath	Disposal site	Marine Scotland	High	Open																	
Blae Rock A	Disposal site	Marine Scotland	High	Open																	
Firth of Tay E	Disposal site	Marine Scotland	High	Open																	
Fraserburgh	Disposal site	Marine Scotland	High	Open																	
Kirkcaldy	Disposal site	Marine Scotland	High	Open																	
Macduff	Disposal site	Marine Scotland	High	Open																	
Methil	Disposal site	Marine Scotland	High	Open																	
Middle Bank (Tay)	Disposal site	Marine Scotland	High	Open																	
Montrose	Disposal site	Marine Scotland	High	Open																	
Newcome Bouy	Disposal site	Marine Scotland	High	Open																	
North Buchan Ness	Disposal site	Marine Scotland	High	Open																	
Peterhead	Disposal site	Marine Scotland	High	Open																	
Pittenweem	Disposal site	Marine Scotland	High	Open																	
Stonehaven	Disposal site	Marine Scotland	High	Open																	
Stonehaven B	Disposal site	Marine Scotland	High	Open																	
Tay Bridge	Disposal site	Marine Scotland	High	Open																	

A2.2 Aggregate and Disposal Spatial Screening Matrix

a	Included as part of the topic baseline and hence not considered within the cumulative impact assessment: Screened out of assessment.
b	Part of the baseline but has an ongoing impact and is therefore considered relevant to the cumulative impact assessment: Screened in to assessment.
c	Potential cumulative impact exists: Screened in to assessment.
d	No conceptual effect-receptor pathway: Screened out of assessment.
e	Low data confidence or availability: Screened out of assessment.
f	No physical effect-receptor overlap: Screened out of assessment.
g	No temporal overlap: Screened out of assessment.

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
United Kingdom - Dredge Soil Disposal Sites within 100 km of the Proposed Development																
Tier 2																
Aberdeen	34.87	25.35	f	c	a	d	d	d	a	a	f	f	a	d	f	a
Anstruther	106.59	69.26	f	d	a	d	d	d	a	a	f	f	d	d	f	a
Arbroath	78.08	33.37	f	c	a	d	d	d	a	a	f	f	d	d	f	a
Blae Rock A	142.19	99.51	f	d	a	d	d	d	a	d	f	f	d	d	f	a
Firth of Tay E	103.62	55.20	f	d	a	d	d	d	a	a	f	f	d	d	f	a
Fraserburgh	75.04	82.73	f	d	a	d	d	d	a	a	f	f	d	d	f	a
Kirkcaldy	136.53	93.64	f	d	a	d	d	d	a	a	f	f	d	d	f	a
Macduff	94.34	94.56	f	d	a	d	d	d	a	a	f	f	d	d	f	a
Methil	124.96	82.62	f	d	a	d	d	d	a	a	f	f	d	d	f	a
Middle Bank (Tay)	102.57	54.30	f	d	a	d	d	d	a	a	f	f	d	d	f	a
Montrose	65.94	18.30	f	c	a	d	d	d	a	a	f	f	a	d	f	a
Newcome Bouy	100.83	52.77	f	d	a	d	d	d	a	a	f	f	d	d	f	a
North Buchan Ness	53.46	61.44	f	d	a	d	d	d	a	a	f	f	a	d	f	a
Peterhead	53.81	61.87	f	d	a	d	d	d	a	a	f	f	a	d	f	a
Pittenweem	106.60	69.26	f	d	a	d	d	d	a	a	f	f	d	d	f	a
Stonehaven	38.58	11.95	f	c	a	d	d	d	a	a	f	f	a	d	f	a
Stonehaven B	40.73	11.38	f	c	a	d	d	d	a	a	f	f	a	d	f	a
Tay Bridge	104.53	56.12	f	d	a	d	d	d	a	a	f	f	d	d	f	a

A3 Offshore Cumulative Effects Matrix – Aquaculture

A3.1 Aquaculture Temporal Screening Matrix

	Consenting/Pre-Construction
	Under Construction
	Operation and Maintenance
	Decommissioning

										Construction Window											
										Marine Mammals (and relevant biological topics)											
Project	Type of Fishery	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
United Kingdom - Aquaculture within 100 km of the Proposed Development																					
Tier 2																					
FI-28-5	Seaweed Harvesting	The Crown Estate Scotland	Medium	Active																	
FI-28-7	Seaweed Harvesting	The Crown Estate Scotland	Medium	Active																	
FI-28-8	Seaweed Harvesting	The Crown Estate Scotland	Medium	Active																	
KN-8-1	Seaweed Harvesting	The Crown Estate Scotland	Medium	Active																	

A3.2 Aquaculture Spatial Screening Matrix

a	Included as part of the topic baseline and hence not considered within the cumulative impact assessment: Screened out of assessment.
b	Part of the baseline but has an ongoing impact and is therefore considered relevant to the cumulative impact assessment: Screened in to assessment.
c	Potential cumulative impact exists: Screened in to assessment.
d	No conceptual effect-receptor pathway: Screened out of assessment.
e	Low data confidence or availability: Screened out of assessment.
f	No physical effect-receptor overlap: Screened out of assessment.
g	No temporal overlap: Screened out of assessment.

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation, Military and Communication	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural heritage	Infrastructure and Other Users	Socio-Economics
United Kingdom - Aquaculture within 100 km of the Proposed Development																
Tier 2																
FI-28-5	97.99	58.25	f	d	a	d	e	d	a	d	f	f	d	d	f	a
FI-28-7	99.47	58.32	f	d	a	d	e	d	a	d	f	f	d	d	f	a
FI-28-8	102.23	59.61	f	d	a	d	e	d	a	d	f	f	d	d	f	a
KN-8-1	41.00	17.30	f	a	a	d	e	d	a	d	f	f	a	d	f	a

A4 Offshore Cumulative Effects Matrix – Oil and Gas

A4.1 Oil and Gas Temporal Screening Matrix

	Consenting/Pre-Construction
	Under Construction
	Operation and Maintenance
	Decommissioning

													Construction Window											
													Marine Mammals (and relevant biological topics)											
Project	Block/Subarea Operator				Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
United Kingdom - Oil and Gas within 100 km of the Proposed Development																								
Tier 2																								
Buzzard Production Platform	20	6	a	CNOOC International	NSTA	High	Operational																	
Buzzard Production Sweetening Platform	20	6	a	CNOOC International	NSTA	High	Operational																	
Buzzard Utilities and Quarters Platform	20	6	a	CNOOC International	NSTA	High	Operational																	
Buzzard Wellhead Platform	20	6	a	CNOOC International	NSTA	High	Operational																	
Licenced block 19/10a (1998-2034)	19	10	a	CNOOC International	NSTA	High	Operational																	
Licenced block 19/5a (1995-2031)	19	5	a	CNOOC International	NSTA	High	Operational																	
Licenced block 20/1a (1995-2031)	20	1	a	CNOOC International	NSTA	High	Operational																	
Licenced block 20/1b (2024-2051)	20	1	b	Finder Energy UK Limited	NSTA	High	Operational																	
Licenced block 20/2d (2024-2051)	20	2	d	Finder Energy UK Limited	NSTA	High	Operational																	
Licenced block 20/3a (2024-2051)	20	3	a	Finder Energy UK Limited	NSTA	High	Operational																	
Licenced block 20/6a (1998-2034)	20	6	a	CNOOC International	NSTA	High	Operational																	
Licenced block 20/6d (2024-2051)	20	6	d	Finder Energy UK Limited	NSTA	High	Operational																	
Licenced block 20/7d (2024-2051)	20	7	d	Finder Energy UK Limited	NSTA	High	Operational																	
Licenced block 20/8c (2024-2051)	20	8	c	Finder Energy UK Limited	NSTA	High	Operational																	
Licenced block 20/28 (2024-2052)	20	28	-	North Sea Natural Resources Limited	NSTA	High	Operational																	
Licenced block 20/29 (2024-2052)	20	29	-	North Sea Natural Resources Limited	NSTA	High	Operational																	

													Construction Window											
													Marine Mammals (and relevant biological topics)											
Project	Block/Subarea Operator				Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Licenced block 20/30a (2024-2052)	20	30	a	North Sea Natural Resources Limited	NSTA	High	Operational																	
Licenced block 21/17a (2014-2040)	21	17	a	Finder Energy UK Limited	NSTA	High	Operational																	
Licenced block 21/26a (2024-2052)	21	26	a	North Sea Natural Resources Limited	NSTA	High	Operational																	
Licenced block 21/27a (2014-2040)	21	27	a	Ping Petroleum Limited	NSTA	High	Operational																	
Licenced block 27/3a (2017-2047)	27	3	a	North Sea Natural Resources Limited	NSTA	High	Operational																	
Licenced block 27/4a (2017-2047)	27	4	a	North Sea Natural Resources Limited	NSTA	High	Operational																	
Licenced block 27/5a (2017-2047)	27	5	a	North Sea Natural Resources Limited	NSTA	High	Operational																	
Licenced block 27/9a (2017-2047)	27	9	a	North Sea Natural Resources Limited	NSTA	High	Operational																	
Licenced block 27/10a (2017-2047)	27	10	a	North Sea Natural Resources Limited	NSTA	High	Operational																	
Licenced block 28/1a (2017-2047)	28	1	a	North Sea Natural Resources Limited	NSTA	High	Operational																	
Licenced block 28/2a (2019-2051)	28	2	a	Orcadian Energy (CNS) Limited	NSTA	High	Operational																	
Licenced block 28/3a (2019-2051)	28	3	a	Orcadian Energy (CNS) Limited	NSTA	High	Operational																	
Licenced block 28/6a (2017-2047)	28	6	a	North Sea Natural Resources Limited	NSTA	High	Operational																	

A4.2 Oil and Gas Spatial Screening Matrix

a	Included as part of the topic baseline and hence not considered within the cumulative impact assessment: Screened out of assessment.
b	Part of the baseline but has an ongoing impact and is therefore considered relevant to the cumulative impact assessment: Screened in to assessment.
c	Potential cumulative impact exists: Screened in to assessment.
d	No conceptual effect-receptor pathway: Screened out of assessment.
e	Low data confidence or availability: Screened out of assessment.
f	No physical effect-receptor overlap: Screened out of assessment.
g	No temporal overlap: Screened out of assessment.

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
United Kingdom - Oil and Gas within 100 km of the Proposed Development																
Tier 2																
Buzzard Production Platform	87.52	98.55	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Buzzard Production Sweetening Platform	87.61	98.64	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Buzzard Utilities and Quarters Platform	87.42	98.45	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Buzzard Wellhead Platform	87.63	98.66	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 19/10a (1998-2034)	80.94	91.88	f	d	a	a	d	d	a	a	f	f	a	d	d	a
Licenced block 19/5a (1995-2031)	87.93	98.79	f	d	a	a	d	d	a	a	f	f	a	d	d	a
Licenced block 20/1a (1995-2031)	89.13	100.12	f	d	a	a	d	d	a	a	f	f	a	d	d	a
Licenced block 20/1b (2024-2051)	91.95	103.08	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 20/2d (2024-2051)	95.53	106.72	f	d	a	a	d	d	a	d	f	f	a	d	a	a
Licenced block 20/3a (2024-2051)	98.30	109.50	f	d	a	a	d	d	a	d	f	f	a	d	a	a
Licenced block 20/6a (1998-2034)	82.01	93.05	f	d	a	a	d	d	a	a	f	f	a	d	d	a
Licenced block 20/6d (2024-2051)	73.19	84.29	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 20/7d (2024-2051)	87.95	99.14	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 20/8c (2024-2051)	95.08	106.27	f	d	a	a	d	d	a	d	f	f	a	d	a	a
Licenced block 20/28 (2024-2052)	34.84	52.96	f	a	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 20/29 (2024-2052)	46.99	65.08	f	a	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 20/30a (2024-2052)	59.15	77.21	f	d	a	a	d	d	a	a	f	f	a	d	a	a

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Licenced block 21/17a (2014-2040)	96.32	113.77	f	d	a	a	d	d	a	d	f	f	a	d	a	a
Licenced block 21/26a (2024-2052)	71.30	89.35	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 21/27a (2014-2040)	85.65	103.87	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 27/3a (2017-2047)	34.83	52.76	f	a	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 27/4a (2017-2047)	46.99	64.93	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 27/5a (2017-2047)	59.14	77.10	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 27/9a (2017-2047)	57.10	71.57	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 27/10a (2017-2047)	61.91	78.42	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 28/1a (2017-2047)	71.30	89.26	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 28/2a (2019-2051)	83.46	101.43	f	d	a	a	d	d	a	a	f	f	a	d	a	a
Licenced block 28/3a (2019-2051)	95.61	113.59	f	d	a	a	d	d	a	d	f	f	a	d	a	a
Licenced block 28/6a (2017-2047)	73.66	90.44	f	d	a	a	d	d	a	a	f	f	a	d	a	a

A5 Offshore Cumulative Effects Matrix – Ports

A5.1 Ports Temporal Screening Matrix

	Consenting/Pre-Construction
	Under Construction
	Operation and Maintenance
	Decommissioning

										Construction Window											
										Marine Mammals (and relevant biological topics)											
Project	Type of Port	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
United Kingdom - Ports within 100 km of the Proposed Development.																					
Tier 2																					
Anstruther	Small Fishing Harbour	Marine Scotland	High	Operational																	
Arbroath Harbour	Other port or harbour	Marine Scotland	High	Operational																	
Banff Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Boddam Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Buchanhaven	Small Fishing Harbour	Ports.org.uk	High	Operational																	
Cairnbulg	Small Fishing Harbour	Marine Scotland	High	Operational																	
Catterline	Small Fishing Harbour	Marine Scotland	High	Operational																	
Cellardyke	Small Fishing Harbour	Marine Scotland	High	Operational																	
Collieston	Small Fishing Harbour	Marine Scotland	High	Operational																	
Cove	Small Fishing Harbour	Marine Scotland	High	Operational																	
Cove Bay	Small Fishing Harbour	Marine Scotland	High	Operational																	
Crail Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Dunbar Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Dysart	Small Fishing Harbour	Marine Scotland	High	Operational																	
Elie Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Fraserburgh	Minor port	Marine Scotland	High	Operational																	
Gardenstown	Small Fishing Harbour	Marine Scotland	High	Operational																	
Gourdon Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Johnshaven	Small Fishing Harbour	Marine Scotland	High	Operational																	
Lower Largo Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Macduff Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Methil Docks	Major port	Marine Scotland	High	Operational																	
Montrose Port	Minor port	Marine Scotland	High	Operational																	

					Construction Window																
					Marine Mammals (and relevant biological topics)																
Project	Type of Port	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
North Berwick	Small Fishing Harbour	Marine Scotland	High	Operational																	
Pennan Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Perth Harbour	Minor port	Marine Scotland	High	Operational																	
Peterhead	Major port	Marine Scotland	High	Operational																	
Pettycur Pier	Small Fishing Harbour	Marine Scotland	High	Operational																	
Pittenweem Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Port Erroll Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Portsoy Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Port of Aberdeen	Major port	Marine Scotland	High	Operational																	
Port of Dundee	Major port	Marine Scotland	High	Operational																	
Port of Kirkcaldy	Major port	Marine Scotland	High	Operational																	
Rosehearty Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Sandhaven Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
St Andrews Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
St Monans Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Stonehaven	Small Fishing Harbour	Marine Scotland	High	Operational																	
Tayport	Small harbour	Marine Scotland	High	Operational																	
West Wemyss Harbour	Small Fishing Harbour	Marine Scotland	High	Operational																	
Whitehills	Small Fishing Harbour	Marine Scotland	High	Operational																	

A5.2 Ports Spatial Screening Matrix

a	Included as part of the topic baseline and hence not considered within the cumulative impact assessment: Screened out of assessment.
b	Part of the baseline but has an ongoing impact and is therefore considered relevant to the cumulative impact assessment: Screened in to assessment.
c	Potential cumulative impact exists: Screened in to assessment.
d	No conceptual effect-receptor pathway: Screened out of assessment.
e	Low data confidence or availability: Screened out of assessment.
f	No physical effect-receptor overlap: Screened out of assessment.
g	No temporal overlap: Screened out of assessment.

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation, Military and Communication	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural heritage	Infrastructure and Other Users	Socio-Economics
United Kingdom - Ports within 100 km of the Proposed Development.																
Tier 2																
Anstruther	108.31	69.48	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Arbroath Harbour	79.75	33.39	f	a	a	a	a	d	a	a	f	d	d	d	a	a
Banff Harbour	95.82	94.50	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Boddam Harbour	51.41	58.77	f	d	a	a	a	d	a	a	f	d	a	a	a	a
Buchanhaven	55.78	63.30	f	d	a	a	a	d	a	a	f	d	a	a	a	a
Cairnbulg	76.41	83.71	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Catterline	44.62	7.06	f	a	a	a	a	d	a	a	f	d	a	a	a	a
Cellardyke	107.37	68.74	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Collieston	45.45	48.59	f	a	a	a	a	d	a	a	f	d	a	a	a	a
Cove	121.65	95.87	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Cove Bay	38.56	25.24	f	a	a	a	a	d	a	a	f	d	a	a	a	a
Crail Harbour	102.40	64.19	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Dunbar Harbour	120.24	89.55	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Dysart	135.06	91.71	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Elie Harbour	116.36	76.05	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Fraserburgh	79.16	86.17	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Gardenstown	88.55	90.95	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Gourdon Harbour	50.63	1.19	f	a	a	a	a	d	a	a	f	d	a	a	a	a
Johnshaven	54.71	2.69	f	a	a	a	a	d	a	a	f	d	a	a	a	a
Lower Largo Harbour	120.00	77.20	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Macduff Harbour	95.00	94.36	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Methil Docks	124.78	81.72	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Montrose Port	65.55	15.42	f	a	a	a	a	d	a	a	f	d	d	d	a	a
North Berwick	122.54	86.67	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Pennan Harbour	86.15	89.99	f	d	a	a	a	d	a	a	f	d	d	d	a	a

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation, Military and Communication	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural heritage	Infrastructure and Other Users	Socio-Economics
Perth Harbour	133.99	83.60	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Peterhead	53.94	61.51	f	d	a	a	a	d	a	a	f	d	a	a	a	a
Pettycur Pier	142.20	99.26	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Pittenweem Harbour	110.27	71.06	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Port Erroll Harbour	47.41	53.46	f	a	a	a	a	d	a	a	f	d	a	a	a	a
Portsoy Harbour	104.27	99.45	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Port of Aberdeen	40.63	29.96	f	a	a	a	a	d	a	a	f	d	a	a	a	a
Port of Dundee	102.30	53.81	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Port of Kirkcaldy	136.68	93.13	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Rosehearty Harbour	83.24	89.23	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Sandhaven Harbour	81.12	87.68	f	d	a	a	a	d	a	a	f	d	d	d	a	a
St Andrews Harbour	103.32	59.96	f	d	a	a	a	d	a	a	f	d	d	d	a	a
St Monans Harbour	112.59	72.83	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Stonehaven	43.26	13.60	f	a	a	a	a	d	a	a	f	d	a	a	a	a
Tayport	101.51	53.77	f	d	a	a	a	d	a	a	f	d	d	d	a	a
West Wemyss Harbour	132.23	88.95	f	d	a	a	a	d	a	a	f	d	d	d	a	a
Whitehills	98.99	96.69	f	d	a	a	a	d	a	a	f	d	d	d	a	a

A6 Offshore Cumulative Effects Matrix – Cables and Pipelines

A6.1 Cable and Pipeline Temporal Screening Matrix

	Consenting/Pre-Construction
	Under Construction
	Operation and Maintenance
	Decommissioning

										Construction Window												
										Marine Mammals (and relevant biological topics)												
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
United Kingdom - Pipelines within 100 km of the Proposed Development																						
Tier 2																						
20" Fulmar A - St Fergus (PL208)	289 km gas pipeline from Fulmar A to St Fergus gas processing plant.	NSTA	High	Operational																		
32" MCP01 Bypass Bundle to St Fergus Gas Plant (PL6S)	186 km gas pipeline (Frigg UK System) Bypass Bundle to St Fergus gas plant.	NSTA	High	Operational																		
36" Brent A - St. Fergus (FLAGS) (PL002)	447 km gas pipeline from Brent A to St Fergus gas processing plant.	NSTA	High	Operational																		
Britannia to St Fergus (PL1270)	185 km gas pipeline from Britannia to St Fergus gas processing plant.	NSTA	High	Operational																		
Buzzard (P) to central water injection manifold (PL2078)	3 km water pipeline from Buzzard (P) to central water injection manifold.	NSTA	High	Operational																		
Buzzard (P) to southern water injection manifold (PL2076)	2.5 km water pipeline from Buzzard (P) to Southern Water Injection Manifold.	NSTA	High	Operational																		
Buzzard gas export SSIV to Buzzard export PLEM (PL2072)	28 km gas pipeline from Buzzard to Captain.	NSTA	High	Operational																		
Buzzard gas export SSIV to Buzzard North Terrace Manifold Towhead (PL4757.4)	5.3 km water pipeline from Buzzard to Buzzard North Terrace Manifold Towhead.	NSTA	High	Operational																		
Buzzard North Terrace Manifold Towhead to Buzzard Well 20/01-N3Y (PL6409)	62 m gas pipeline from Buzzard North Terrace Manifold Towhead to Buzzard Well 20/01-N3Y.	NSTA	High	Operational																		
Buzzard North Terrace Manifold Towhead to Buzzard Well 20/01-N4Y (PL6410)	63 m pipeline from NTM Towhead to Well 20/01-N4Y.	NSTA	High	Operational																		

											Construction Window										
											Marine Mammals (and relevant biological topics)										
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Buzzard North Terrace ManifoldTowhead to Well 20/01-N3Y (PL64118)	69 m pipeline from NTM Towhead to Well 20/01-N3Y.	NSTA	High	Operational																	
Buzzard NTm Towhead to Buzzard Well 20/01-N3Y (PL6414).	72 m gas pipeline from Buzzard NTm Towhead to Buzzard Well 20/01-N3Y.	NSTA	High	Operational																	
Buzzard NTM Towhead to IN1 Well (PL4771)	62 m water pipeline from NTM Towhead to IN1 Well.	NSTA	High	Operational																	
Buzzard NTM Towhead to IN2 Well (PL4773)	59 m water pipeline from NTM Towhead to IN2 Well.	NSTA	High	Operational																	
Buzzard NTM Towhead to PN3 Well (PL4768)	55 m gas pipeline from Buzzard NTM Towhead to PN3 Well.	NSTA	High	Operational																	
Buzzard NTM Towhead to PN7 Well (PL4762)	54 m gas pipeline from Buzzard NTM Towhead to PN7 Well.	NSTA	High	Operational																	
Buzzard Oil Export PLEM to Forties Pipeline Hot Tap (PL2074)	105 m oil pipeline from Buzzard Oil Export PLEM to Forties Pipeline Hot Tap.	NSTA	High	Operational																	
Buzzard Oil Export SSIV to Buzzard Oil Export PLEM (PL2074)	28 km oil pipeline from Buzzard to Forties Hot Tap.	NSTA	High	Operational																	
Buzzard P Platform to Buzzard gas export SSIV (PL2072)	210 m gas pipeline from Buzzard P Platform to Buzzard gas export SSIV.	NSTA	High	Operational																	
Buzzard P Platform to Buzzard Oil Export SSIV (PL2074)	130 m oil export pipeline to Forties Hot Tap.	NSTA	High	Operational																	
Buzzard P Platform to Buzzard Spool Bundle (PL4757.3)	39 m gas pipeline from Buzzard P Platform to Buzzard Spool Bundle.	NSTA	High	Operational																	
Buzzard PN3 Well to NTM Towhead (PL4769)	50 m gas pipeline from Buzzard PN3 Well to NTM Towhead.	NSTA	High	Operational																	
Buzzard PN7 Well to NTM Towhead (PL4763)	59 m gas pipeline from Buzzard PN7 Well to NTM Towhead.	NSTA	High	Operational																	
Buzzard Spool Bundle to Buzzard P Platform (PL4757.1)	33 m gas pipeline from Buzzard NTM Towhead to Buzzard Platform.	NSTA	High	Operational																	
Buzzard Spool Bundle to Buzzard P Platform (PL4757.2)	33 m gas pipeline from Buzzard Spool Bundle to Buzzard P Platform.	NSTA	High	Operational																	
Buzzard Spool Bundle to Buzzard SSIV Towhead (PL4757.3)	80 m gas pipeline from Buzzard Spool Bundle to Buzzard SSIV Towhead.	NSTA	High	Operational																	
Buzzard SSIV Towhead Side to NTM Towhead (PL4757.4)	101 m water pipeline from SSIV Towhead Side to NTM Towhead.	NSTA	High	Operational																	

										Construction Window											
										Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Buzzard SSIV Towhead to Buzzard P Platform (PL4757.1 - PL4757.3)	202 m gas pipeline from Buzzard SSIV Towhead to Buzzard P Platform.	NSTA	High	Operational																	
Buzzard SSIV Towhead to Buzzard Spool Bundle (PL4757.1)	78 m gas pipeline from Buzzard SSIV Towhead to Buzzard Spool Bundle.	NSTA	High	Operational																	
Buzzard SSIV Towhead to Buzzard Spool Bundle (PL4757.2)	74 m gas pipeline from Buzzard SSIV Towhead to Buzzard Spool Bundle.	NSTA	High	Operational																	
Eastern Green Link 2	2 GW subsea cable connecting Peterhead in Aberdeenshire and Drax in North Yorkshire. Onshore construction commenced in 2025. Offshore construction begins in 2027.	National Grid	High	Under Construction																	
Forties to Cruden Bay (PL721)	170 km oil pipeline from the forties C platform to Cruden bay	NSTA	High	Operational																	
HFC to St Fergus South (PL7S)	174 km gas pipeline from HFC to St Fergus South.	NSTA	High	Operational																	
SAGE Pipeline (PL762)	324 km gas pipeline from Beryl Alpha to St Fergus.	NSTA	High	Operational																	
SHEFA-2 Seg 09 Telecom Cable	Fibre optic submarine cable running from Manse Bay in Orkney to Banff in Scotland.	Marine Scotland	High	Operational																	
Spittal to Peterhead HVDC Link Project	Construction of a new 172 km, 2 GW, 525 kV subsea HVDC electricity transmission link in the Moray Firth. Marine licence granted 18 November 2025. Enabling works underway with main works starting in April 2026.	Marine Scotland	High	Under Construction																	
Tier 3																					
Central North Sea Electrification (CNSE) Project	Scoping request for the electrification of existing oil and gas infrastructure in the central North Sea. The infrastructure includes an onshore convertor station, an offshore convertor station, 66 kV offshore cabling connecting CNSE assets, 80 kV cabling to landfall, and 80 kV cabling from landfall to the onshore convertor station. Scoping Report submitted in May 2023.	Marine Scotland	High	Pre-Application																	

											Construction Window											
											Marine Mammals (and relevant biological topics)											
Project	Description/Capacity/Scale	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066	
Eastern Green Link 3	Scoping application. The project comprises a 2 GW system linking Aberdeenshire in Scotland and Lincolnshire in England. Approximately 575 km of subsea HVDC cable from Lincolnshire to a proposed Landfall at Sandford Bay, Peterhead.	Marine Scotland	High	Pre-Application																		
Eastern Green Link 4	Scoping application. The project comprises a 2 GW system linking Lincolnshire in England and Fife in Scotland. Approximately 525 km of subsea HVDC cable from Lincolnshire to the Fife landfall either at Kinghorn or Largo Bay.	Marine Scotland	High	Pre-Application																		
Eastern Green Link 5	Eastern Green Link 5 (EGL5) is a new primarily offshore high voltage electricity link between Scotland and England. Approximately 555 km of subsea HVDC cable from the Lincolnshire coastline to Scotland. Cable landfall in Scotland to be confirmed.	National Grid	High	Pre-Application																		

A6.2 Cable and Pipeline Spatial Screening Matrix

a	Included as part of the topic baseline and hence not considered within the cumulative impact assessment: Screened out of assessment.
b	Part of the baseline but has an ongoing impact and is therefore considered relevant to the cumulative impact assessment: Screened in to assessment.
c	Potential cumulative impact exists: Screened in to assessment.
d	No conceptual effect-receptor pathway: Screened out of assessment.
e	Low data confidence or availability: Screened out of assessment.
f	No physical effect-receptor overlap: Screened out of assessment.
g	No temporal overlap: Screened out of assessment.

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
United Kingdom - Cables within 100 km of the Proposed Development																
Tier 2																
20" Fulmar A - St Fergus (PL208)	53.32	63.91	f	d	a	a	d	d	a	a	f	f	d	d	f	a
32" MCP01 Bypass Bundle to St Fergus Gas Plant (PL6S)	58.66	67.56	f	d	a	a	d	d	a	a	f	f	d	d	f	a
36" Brent A - St. Fergus (FLAGS) (PL002)	60.49	69.01	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Britannia to St Fergus (PL1270)	59.24	68.57	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard (P) to central water injection manifold (PL2078)	87.54	98.58	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard (P) to southern water injection manifold (PL2076)	86.71	97.79	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard gas export SSIV to Buzzard export PLEM (PL2072)	87.56	98.59	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard gas export SSIV to Buzzard North Terrace Manifold Towhead (PL4757.4)	87.73	98.75	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard North Terrace Manifold Towhead to Buzzard Well 20/01-N3Y (PL6409)	92.02	103.10	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard North Terrace Manifold Towhead to Buzzard Well 20/01-N4Y (PL6410)	92.02	103.10	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard North Terrace Manifold Towhead to Well 20/01-N3Y (PL64118)	91.97	103.05	f	d	a	a	d	d	a	a	f	f	d	d	f	a

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Buzzard NTm Towhead to Buzzard Well 20/01-N3Y (PL6414).	91.97	103.05	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard NTM Towhead to IN1 Well (PL4771)	92.03	103.11	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard NTM Towhead to IN2 Well (PL4773)	92.01	103.09	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard NTM Towhead to PN3 Well (PL4768)	91.99	103.07	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard NTM Towhead to PN7 Well (PL4762)	92.03	103.11	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard Oil Export PLEM to Forties Pipeline Hot Tap (PL2074)	63.76	74.96	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard Oil Export SSIV to Buzzard Oil Export PLEM (PL2074)	63.82	75.02	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard P Platform to Buzzard gas export SSIV (PL2072)	87.50	98.53	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard P Platform to Buzzard Oil Export SSIV (PL2074)	87.39	98.42	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard P Platform to Buzzard Spool Bundle (PL4757.3)	87.54	98.57	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard PN3 Well to NTM Towhead (PL4769)	91.99	103.07	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard PN7 Well to NTM Towhead (PL4763)	92.03	103.11	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard Spool Bundle to Buzzard P Platform (PL4757.1)	87.54	98.57	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard Spool Bundle to Buzzard P Platform (PL4757.2)	87.54	98.57	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard Spool Bundle to Buzzard SSIV Towhead (PL4757.3)	87.67	98.69	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard SSIV Towhead Side to NTM Towhead (PL4757.4)	87.66	98.69	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard SSIV Towhead to Buzzard P Platform (PL4757.1 - PL4757.3)	87.55	98.58	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Buzzard SSIV Towhead to Buzzard Spool Bundle (PL4757.1)	87.67	98.70	f	d	a	a	d	d	a	a	f	f	d	d	f	a

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Buzzard SSIV Towhead to Buzzard Spool Bundle (PL4757.2)	87.67	98.69	f	d	a	a	d	d	a	a	f	f	d	d	f	a
Eastern Green Link 2	0.00	12.33	c	c	c	c	d	d	c	d	f	c	d	d	c	c
Forties to Cruden Bay (PL721)	39.31	48.70	f	c	c	a	d	d	a	a	f	f	d	d	f	a
HFC to St Fergus South (PL7S)	58.79	67.69	f	d	a	a	d	d	a	a	f	f	d	d	f	a
SAGE Pipeline (PL762)	60.07	69.37	f	d	a	a	d	d	a	a	f	f	d	d	f	a
SHEFA-2 Seg 09 Telecom Cable	97.10	96.10	f	d	d	a	d	d	a	d	f	f	d	d	a	a
Spittal to Peterhead HVDC Link Project	62.49	70.89	f	d	d	c	d	d	c	d	f	f	d	d	c	c
Tier 3																
Central North Sea Electrification (CNSE) Project	36.00	46.20	f	a	c	c	d	d	c	c	f	f	d	d	c	c
Eastern Green Link 3	6.28	23.76	c	c	c	a	d	d	c	c	f	f	d	d	c	c
Eastern Green Link 4	94.96	73.68	f	d	d	a	d	d	c	c	f	f	d	d	c	c
Eastern Green Link 5	72.20	82.90	e	c	d	c	d	d	c	e	f	e	e	d	c	c

A7 Offshore Cumulative Effects Matrix – Military, Aviation and Radar

A7.1 Military, Aviation and Radar Temporal Screening Matrix

	Consenting/Pre-Construction
	Under Construction
	Operation and Maintenance
	Decommissioning

											Construction Window																
											Marine Mammals (and relevant biological topics)																
Project	Type of Project	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066						
United Kingdom - Military, Aviation and Radar within 100 km of the Proposed Development																											
Tier 2																											
Aberdeen	Navigational Transponder	NSTA	High	Operational																							
Perth	Navigational Transponder	NSTA	High	Operational																							
Saint Abbs	Navigational Transponder	NSTA	High	Operational																							
Aberdeen	Secondary Surveillance	NSTA	High	Operational																							
Aberdeen/Dyce	Secondary Surveillance	NSTA	High	Operational																							
Aberdeen	UK Airport	Xodus digitised from OS Open Map Local data	High	Operational																							
Dundee	UK Airport	Xodus digitised from OS Open Map Local data	High	Operational																							
D604: BARRY BUDDON	Military practice area	Oceanwise	High	Operational																							
D613A	Military practice area	Oceanwise	High	Operational																							
D613A	Military practice area	Oceanwise	High	Operational																							
D613B	Military practice area	Oceanwise	High	Operational																							
D613C	Military practice area	Oceanwise	High	Operational																							
D613D	Military practice area	Oceanwise	High	Operational																							
D712D	Military practice area	Oceanwise	High	Operational																							
D809(S): MORAY FIRTH (SOUTH)	Military practice area	Oceanwise	High	Operational																							
X5611: KIRKCALDY BAY	Military practice area	Oceanwise	High	Operational																							
X5612: ABERLADY BAY	Military practice area	Oceanwise	High	Operational																							
X5613N: KIRKCALDY	Military practice area	Oceanwise	High	Operational																							
X5613S: ABERLADY	Military practice area	Oceanwise	High	Operational																							
X5614: MAY ISLAND	Military practice area	Oceanwise	High	Operational																							

					Construction Window											Marine Mammals (and relevant biological topics)					
Project	Type of Project	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
X5615: FORTH DEEP	Military practice area	Oceanwise	High	Operational																	
X5625: ANSTRUTHER	Military practice area	Oceanwise	High	Operational																	
X5637: FIRTH OF FORTH (SOUTHERN)	Military practice area	Oceanwise	High	Operational																	
X5638: FIRTH OF FORTH (NORTHERN)	Military practice area	Oceanwise	High	Operational																	
X5641: FORTH OUTER	Military practice area	Oceanwise	High	Operational																	
X5642: FORTH MIDDLE	Military practice area	Oceanwise	High	Operational																	
X5703: BLACK DOG	Military practice area	Oceanwise	High	Operational																	
X5722: DRUMS LINKS	Military practice area	Oceanwise	High	Operational																	

A7.2 Military, Aviation and Radar Spatial Screening Matrix

a	Included as part of the topic baseline and hence not considered within the cumulative impact assessment: Screened out of assessment.
b	Part of the baseline but has an ongoing impact and is therefore considered relevant to the cumulative impact assessment: Screened in to assessment.
c	Potential cumulative impact exists: Screened in to assessment.
d	No conceptual effect-receptor pathway: Screened out of assessment.
e	Low data confidence or availability: Screened out of assessment.
f	No physical effect-receptor overlap: Screened out of assessment.
g	No temporal overlap: Screened out of assessment.

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation, Military and Communication	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural heritage	Infrastructure and Other Users	Socio-Economics
United Kingdom - Military, Aviation and Radar within 100 km of the Proposed Development																
Tier 2																
Aberdeen	49.46	41.60	d	a	d	a	d	d	d	a	f	d	a	d	d	a
Perth	118.10	67.08	d	d	d	a	d	d	d	a	f	d	d	d	d	d
Saint Abbs	111.18	89.20	d	d	d	a	d	d	d	a	f	d	d	d	d	d
Aberdeen	51.82	56.51	d	d	d	a	d	d	d	a	f	d	a	d	d	a
Aberdeen/Dyce	19.34	10.73	d	a	d	a	d	d	d	a	f	d	a	d	d	a
Aberdeen	50.38	39.05	d	a	d	a	d	d	d	a	f	d	a	d	d	a
Dundee	108.70	59.52	d	d	d	a	d	d	d	a	f	d	d	d	d	d
D604: BARRY BUDDON	87.10	41.08	d	a	d	a	d	d	d	a	f	d	d	d	a	a
D613A	0.00	0.00	d	a	d	a	d	d	d	a	f	d	a	d	a	a
D613A	65.24	78.04	d	d	d	a	d	d	d	a	f	d	a	d	a	a
D613B	4.74	13.71	d	a	d	a	d	d	d	a	f	d	a	d	a	a
D613C	10.96	14.61	d	a	d	a	d	d	d	a	f	d	a	d	a	a
D613D	59.59	68.55	d	d	d	a	d	d	d	a	f	d	a	d	a	a
D712D	79.79	85.55	d	d	d	a	d	d	d	a	f	d	d	d	a	a
D809(S): MORAY FIRTH (SOUTH)	92.77	100.47	d	d	d	a	d	d	d	a	f	d	d	d	a	a
X5611: KIRKCALDY BAY	126.23	84.94	d	d	d	a	d	d	d	a	f	d	d	d	a	a
X5612: ABERLADY BAY	137.31	98.20	d	d	d	a	d	d	d	d	f	d	d	d	a	a
X5613N: KIRKCALDY	117.58	76.12	d	d	d	a	d	d	d	a	f	d	d	d	a	a
X5613S: ABERLADY	123.95	84.31	d	d	d	a	d	d	d	a	f	d	d	d	a	a

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation, Military and Communication	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural heritage	Infrastructure and Other Users	Socio-Economics
X5614: MAY ISLAND	93.51	57.30	d	d	d	a	d	d	d	a	f	d	d	d	a	a
X5615: FORTH DEEP	94.05	63.18	d	d	d	a	d	d	d	a	f	d	d	d	a	a
X5625: ANSTRUTHER	103.30	65.99	d	d	d	a	d	d	d	a	f	d	d	d	a	a
X5637: FIRTH OF FORTH (SOUTHERN)	107.92	75.40	d	d	d	a	d	d	d	a	f	d	d	d	a	a
X5638: FIRTH OF FORTH (NORTHERN)	100.47	64.15	d	d	d	a	d	d	d	a	f	d	d	d	a	a
X5641: FORTH OUTER	65.91	57.79	d	d	d	a	d	d	d	a	f	d	d	d	a	a
X5642: FORTH MIDDLE	76.00	55.42	d	d	d	a	d	d	d	a	f	d	d	d	a	a
X5703: BLACK DOG	40.93	36.04	d	a	d	a	d	d	d	a	f	d	a	d	a	a
X5722: DRUMS LINKS	43.28	43.26	d	a	d	a	d	d	d	a	f	d	a	d	a	a

A8 Offshore Cumulative Effects Matrix – Coastal

A8.1 Coastal Temporal Screening Matrix

	Consenting/Pre-Construction
	Under Construction
	Operation and Maintenance
	Decommissioning

					Construction Window																
					Marine Mammals (and relevant biological topics)																
Project	Description	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
United Kingdom - Planning application within 100 km of the Proposed Development																					
Tier 2																					
Bell Rock Lighthouse Repair Work	Repair works to access walkway to Bell Rock Lighthouse.	Marine Scotland	High	Awaiting decision																	
Berwick Bank Electricity Transmission Infrastructure	Planning permission in principle for electricity transmission infrastructure (substation or converter station) and approval of matters specified in condition 2 in respect of installation of 275 kV cable works between the landfall and the onshore substation. Subject to discharge of conditions, the applicant intends to commence initial site enabling works in Q2 2026. (23/00162/PPM and 25/01386/AMM).	East Lothian Council	High	Awaiting decision																	
Buchan Offshore Wind Onshore Transmission Infrastructure	Onshore Transmission Infrastructure for Buchan Offshore Wind including Landfall Point, Cable Route Corridor, Cable Circuits, Erection of Substation, Control Building and Associated Works to connect to the Transmission Grid (APP/2025/1617).	Aberdeenshire Council	High	Application submitted																	
Caledonia Offshore Wind Farm Onshore Transmission Infrastructure APP/2024/1812	Formation of Onshore Landfall Point, Laying of Underground Cables, Erection of 2 Co-Located Substations, and Associated Works to connect to the Transmission Grid	Aberdeenshire Council	High	Approved																	

Project	Description	Data Source	Data Confidence Assessment	Status of Project	Construction Window Marine Mammals (and relevant biological topics)																
					2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Cove Harbour wall and steps alterations	Listed Building Consent for minor alterations to the harbour wall to create replacement stone steps from the main pier down to the beach. The proposed stone steps follow the line of the existing pier (25/00306/LBC).	Scottish Borders Council	High	Approved (with conditions)																	
Crail Golfing Society Balcomie Golf Club Coastal Defence	Repair, maintenance and partial replacement of coastal defence including new/replacement of rock armour and new gabion basket (25/02645/FULL).	Fife Council	High	Approved (with conditions)																	
Dundee Lifeboat Station	Maintenance of boathouses, moorings and pontoon berths. Installation and maintenance of beach lifeguard units.	Marine Scotland	High	Approved																	
Dysart Harbour and Tunnel, Rock Slope Remedial Works	Remedial works required to stabilise the rock outcrop that forms part of the coastal path running between Dysart Harbour and Ravenscraig Park to reduce the risk of collapse (25/01323/FULL).	Spatial Hub Scotland	High	Approved (with conditions)																	
Energy Transition Zone, Aberdeen Proposed Mixed-Use Industrial Development Proposal 231371/PPP	Proposed business/industrial development (class 4/5/6); road infrastructure; active travel connections; landscaping and environmental works including drainage and other infrastructure. Development will be delivered across three zones and phased over ten years. Application approved early 2025. No indicative construction commencement or programme given.	Spatial Hub Scotland	Medium	Approved (with conditions)																	
Leven Promenade Retaining Wall	Erection of retaining wall, installation of rock armour at waterfront, and installation of handrails. No construction timeline given. (25/02361/FULL).	Fife Council	High	Approved (with conditions)																	
MarramWind Offshore Wind Farm	Onshore electricity transmission infrastructure and associated development for the proposed MarramWind Offshore Wind Farm including formation of onshore landfills, laying underground cables, erection of substations and associated works (APP/2025/2060).	Aberdeenshire Council	High	Application submitted																	

					Construction Window																
					Marine Mammals (and relevant biological topics)																
Project	Description	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Montrose Dune Restoration	Construction of two rock armour groyne structures and associated works including dune infill works. The overall construction period is anticipated to last up to 3 months assuming a 5-day work week, including holidays (25/00280/FULL). Previous screening application 24/00233/EIASC.R.	Spatial Hub Scotland	High	Approved (with conditions)																	
North Berwick Golf Club Coastal	Coastal reinforcement and protection works including installation of new gabion baskets and mattresses, reinstatement of existing gabions and dune reinstatement. Part Of Land And Coastal Edge To West Links Course Of North Berwick Golf Club (25/00661/PM).	Spatial Hub Scotland	High	Approved (with conditions)																	
Oasis Marine Mooring Bouy	One mooring for seaworthiness trials of a prototype mooring buoy designed for wind farm CTVs.	Marine Scotland	High	Approved (with conditions)																	
Outhead Sand Recharge	Removal of sand from Outhead, recharge at the receptor site to restore the dune face and planting of the dune.	Marine Scotland	High	Approved (with conditions)																	
Queens Road Moorings	Three buoys located in the Firth of Tay.	Marine Scotland	High	Approved (with conditions)																	
Salamander Offshore Wind Farm Battery Energy Storage System	Notification under Electricity Act 1989, Installation of Battery Energy Storage System (BESS) with an Installed Capacity of 180MW and Associated Infrastructure (APP/2025/0444).	Spatial Hub Scotland	High	Approved (with conditions)																	
Salamander Onshore Transmission Infrastructure	The proposed onshore development includes components required for the operation of the Salamander Project including Transitional Joint Bays, onshore export cables, onshore substation, grid connection works and an access road. The project boundary is on the landward side of Mean Low Water Springs north of Peterhead. (APP/2024/1410).	Aberdeenshire Council	High	Approved																	

											Construction Window										
											Marine Mammals (and relevant biological topics)										
Project	Description	Data Source	Data Confidence Assessment	Status of Project	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Spittal to Peterhead HVDC Link Underground Land Cable	The onshore cable route for the Spittal to Peterhead HVDC Link. Approximately 16 km of underground cable between Rattray Head and Netherton Hub in Aberdeenshire. The onshore cable works will not commence until the Marine Licence for the offshore works has been granted.	Marine Scotland	High	Approved																	
St Andrews Slipway Reinstatement	Repair and reinstatement works to wall and adjoining slipway (25/00282/FULL).	Spatial Hub Scotland	High	Approved (with conditions)																	
West Sands Beach Sand Removal	To remove sand from below MHW for use on the golf courses and minor dune repairs.	Marine Scotland	High	Approved (with conditions)																	
West Shore Retaining Wall	Installation of new control kiosk, removal and reinstatement of existing seawall, installation of new outfall pipe, temporary reinforced concrete ramp and rock bags (25/03304/FULL).	Fife Council	High	Application submitted																	
Tier 3																					
Anstruther Lifeboat Station	Screening Request for proposed decommission of the existing lifeboat station and construct a new station. The proposed works involve the reclamation of 464 square metres of existing beach area to create a new launch ramp. A retaining wall is proposed facing the harbour under the new lifeboat station, and extending westwards to join the existing harbour wall. No timeline for application or construction periods.	Marine Scotland	High	Pre-Application (EIA not required)																	
Dundee Port Capital Dredge and Improvement Works	Screening Request submitted. Proposed works include deepening of the approaches, extension to berth pocket and extension to existing lay-down area. The works are anticipated to take up to nine months. No timeline for application or construction periods. Screening Opinion issued 14/10/2025 - EIA required.	Marine Scotland	High	Pre-Application																	

Project	Description	Data Source	Data Confidence Assessment	Status of Project	Construction Window Marine Mammals (and relevant biological topics)																
					2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041-2066
Eastern Green Link Onshore Works	Proposal of Application Notice for onshore parts of Eastern Green Link 4. Proposal comprises a new converter station, approximately 14km of underground DC cable and 1 km of AC cable. The underground cable extends from the convertor station to the landfall north of Kinghorn.	Spatial Hub Scotland	High	Pre-Application																	
Fraserburgh Harbour Development	Proposed works to existing harbour improvement and construction of New South Harbour. Proposed works include relocation of existing south breakwater box berth, dredging and widening of the entrance of two harbours, a jetty and a pier, installation of pontoons and dredging the existing channel, extension of breakwater, installation of new breakwater, dredging and installation of new dry dock.	Marine Scotland	High	Pre-Application																	
Smith Quay Extension	Screening Request for proposed 80 m extension to the western end of the existing 120 m long Smith Quay in Peterhead Port.	Marine Scotland	High	Pre-Application (EIA not required)																	

A8.2 Coastal Spatial Screening Matrix

a	Included as part of the topic baseline and hence not considered within the cumulative impact assessment: Screened out of assessment.
b	Part of the baseline but has an ongoing impact and is therefore considered relevant to the cumulative impact assessment: Screened in to assessment.
c	Potential cumulative impact exists: Screened in to assessment.
d	No conceptual effect-receptor pathway: Screened out of assessment.
e	Low data confidence or availability: Screened out of assessment.
f	No physical effect-receptor overlap: Screened out of assessment.
g	No temporal overlap: Screened out of assessment.

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
United Kingdom - Planning application within 100 km of the Proposed Development																
Tier 2																
Bell Rock Lighthouse Repair Work	77.93	41.18	f	a	d	d	d	d	d	e	f	f	d	d	a	d
Berwick Bank Electricity Transmission Infrastructure	119.82	91.18	f	d	d	g	d	d	d	d	f	f	d	d	f	d
Buchan Offshore Wind Onshore Transmission Infrastructure	51.31	58.20	f	d	d	f	d	d	d	d	f	f	d	d	f	d
Caledonia Offshore Wind Farm Onshore Transmission Infrastructure APP/2024/1812	71.63	70.72	f	d	d	d	d	d	d	d	f	f	d	d	d	d
Cove Harbour wall and steps alterations	121.59	95.29	f	d	f	f	d	d	d	d	f	f	d	d	f	d
Crail Golfing Society Balcomie Golf Club Coastal Defence	98.85	59.87	f	d	d	g	d	d	d	d	f	f	d	d	g	d
Dundee Lifeboat Station	100.11	52.12	f	d	d	d	d	d	d	e	f	f	d	d	g	d
Dysart Harbour and Tunnel, Rock Slope Remedial Works	135.02	91.67	f	d	g	d	d	d	d	d	f	f	d	d	g	d
Energy Transition Zone, Aberdeen Proposed Mixed-Use Industrial Development Proposal 231371/PPP	38.64	27.35	f	a	d	d	d	d	d	f	f	f	d	d	d	d
Leven Promenade Retaining Wall	123.08	78.91	f	d	d	g	d	d	d	d	f	f	d	d	d	d
MarramWind Offshore Wind Farm	52.26	59.45	f	d	d	d	d	d	d	d	f	f	d	d	d	d

Project	Distance from the Bowdun Array Area (km)	Distance from the Bowdun Export Cable Corridor (km)	Physical Processes	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Offshore Bats	Commercial Fisheries	Shipping and Navigation	Aviation and Radar	Marine Archaeology	Seascape, landscape and visual impact assessment	Cultural Heritage	Infrastructure and Other Users	Socio-Economics
Montrose Dune Restoration	63.73	13.21	f	g	g	d	d	d	d	e	f	f	d	d	a	d
North Berwick Golf Club Coastal	123.13	86.01	f	d	d	d	d	d	d	f	f	f	d	d	g	d
Oasis Marine Mooring Bouy	43.12	48.92	f	g	g	g	g	d	g	f	f	f	d	d	g	g
Outhead Sand Recharge	102.56	57.97	f	d	g	d	d	d	d	e	f	f	d	d	d	d
Queens Road Moorings	105.28	56.63	f	d	d	d	d	d	d	d	f	f	d	d	a	d
Salamander Offshore Wind Farm Battery Energy Storage System	57.86	65.35	f	d	d	d	d	d	d	d	f	f	d	d	f	d
Salamander Onshore Transmission Infrastructure	57.87	57.87	f	d	d	d	d	d	d	d	f	f	d	d	f	d
Spittal to Peterhead HVDC Link Underground Land Cable	58.33	58.33	f	d	d	d	d	d	d	d	f	f	d	d	f	d
St Andrews Slipway Reinstatement	103.23	59.87	f	d	d	d	d	d	d	f	f	f	d	d	f	d
West Sands Beach Sand Removal	103.14	58.75	f	d	d	d	d	d	d	e	f	f	d	d	f	d
West Shore Retaining Wall	110.50	70.22	f	d	d	g	d	d	d	d	f	f	d	d	d	d
Tier 3																
Anstruther Lifeboat Station	108.28	69.45	f	d	g	g	g	d	g	e	f	f	d	d	g	g
Dundee Port Capital Dredge and Improvement Works	102.58	54.07	f	d	g	g	g	d	g	e	f	f	d	d	g	g
Eastern Green Link Onshore Works	139.74	94.00	f	d	d	d	d	d	d	f	f	f	d	d	d	d
Fraserburgh Harbour Development	78.98	85.99	f	d	c	c	d	d	d	f	f	f	d	d	c	d
Smith Quay Extension	54.27	61.77	f	d	d	d	d	d	d	f	f	f	d	d	a	d

ANNEX B. CUMULATIVE EFFECTS FIGURES

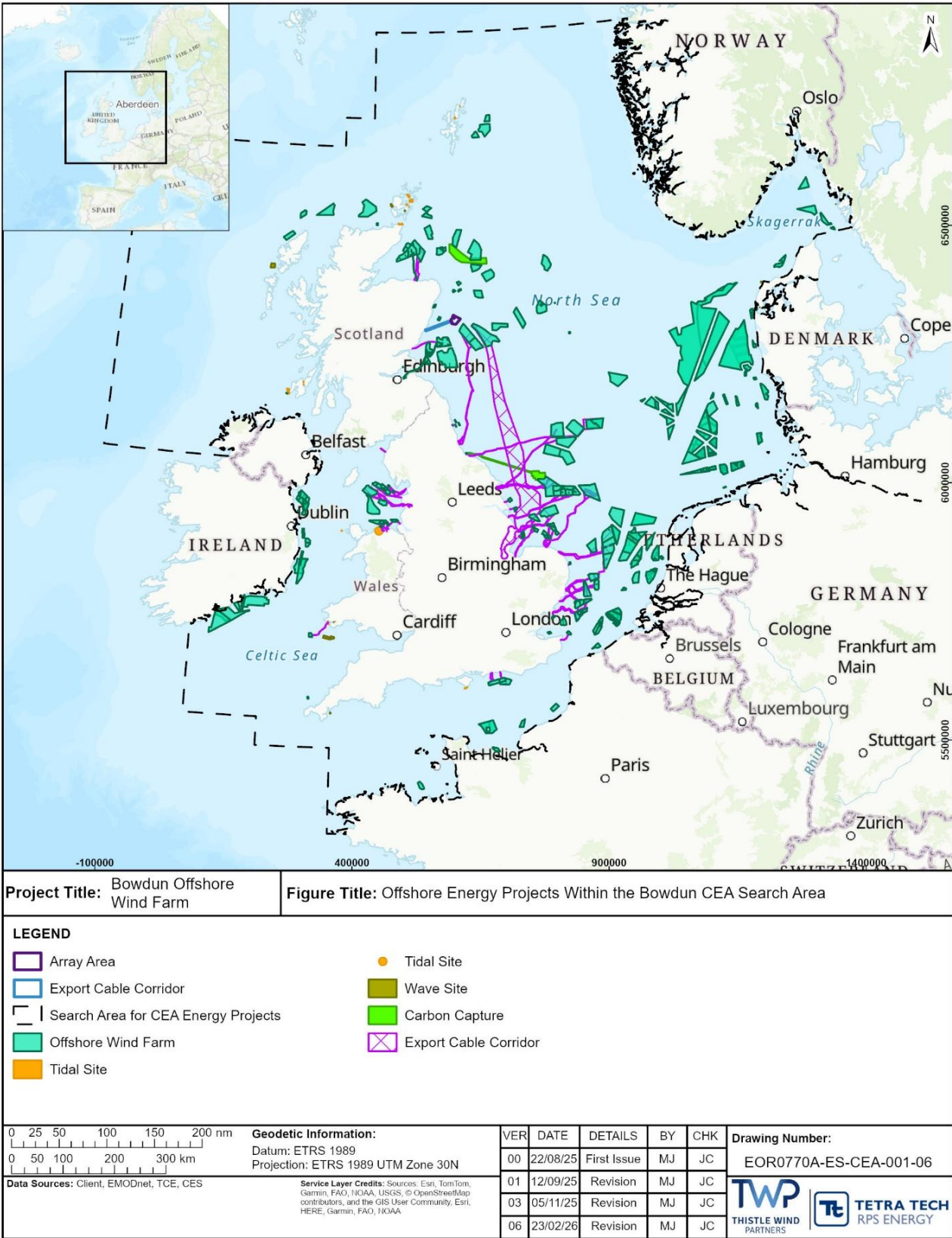


Figure B1.1: Offshore Energy Projects Within the Bowdun CEA Search Area

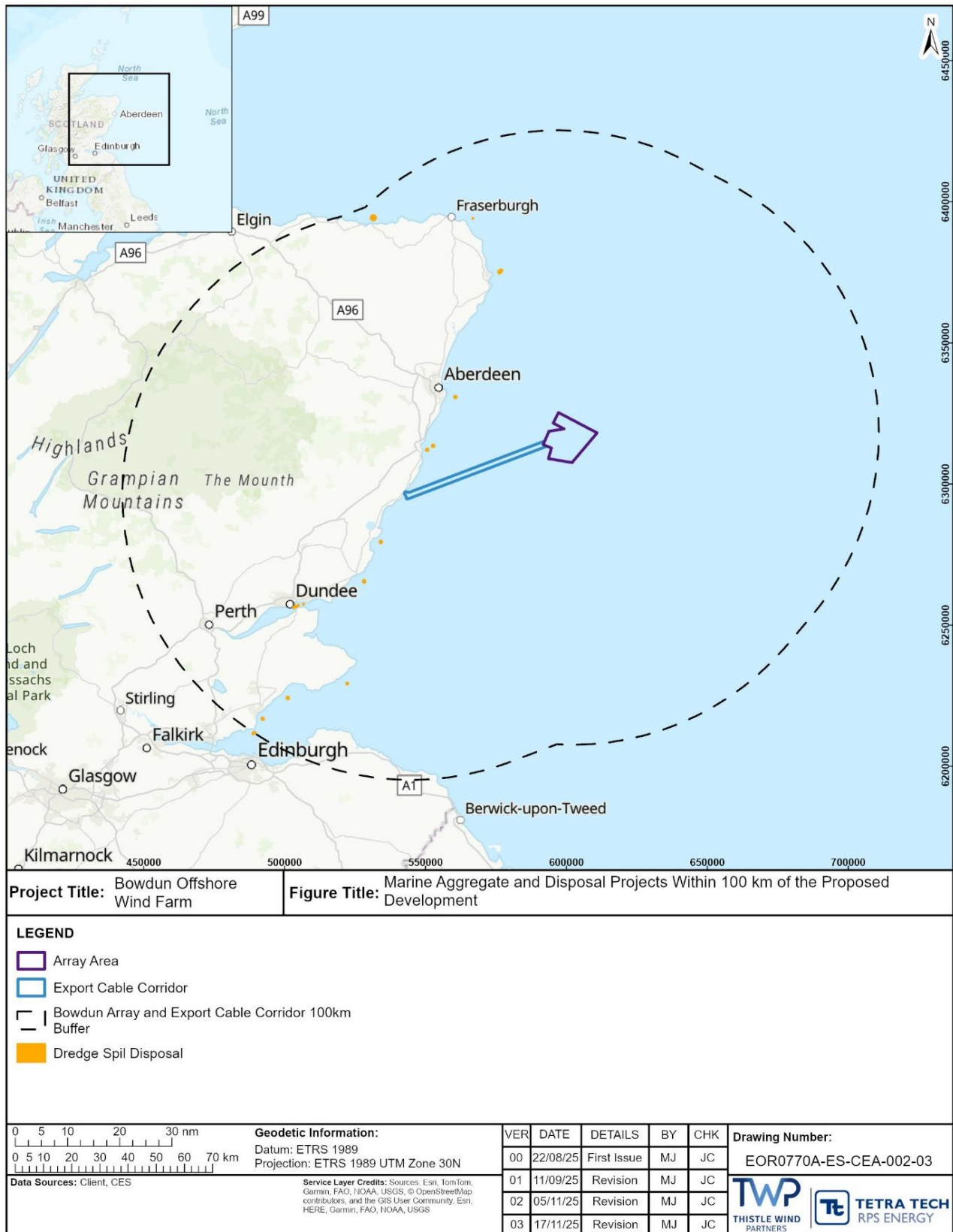


Figure B1.2: Marine Aggregate and Disposal Projects Within 100 km of the Proposed Development

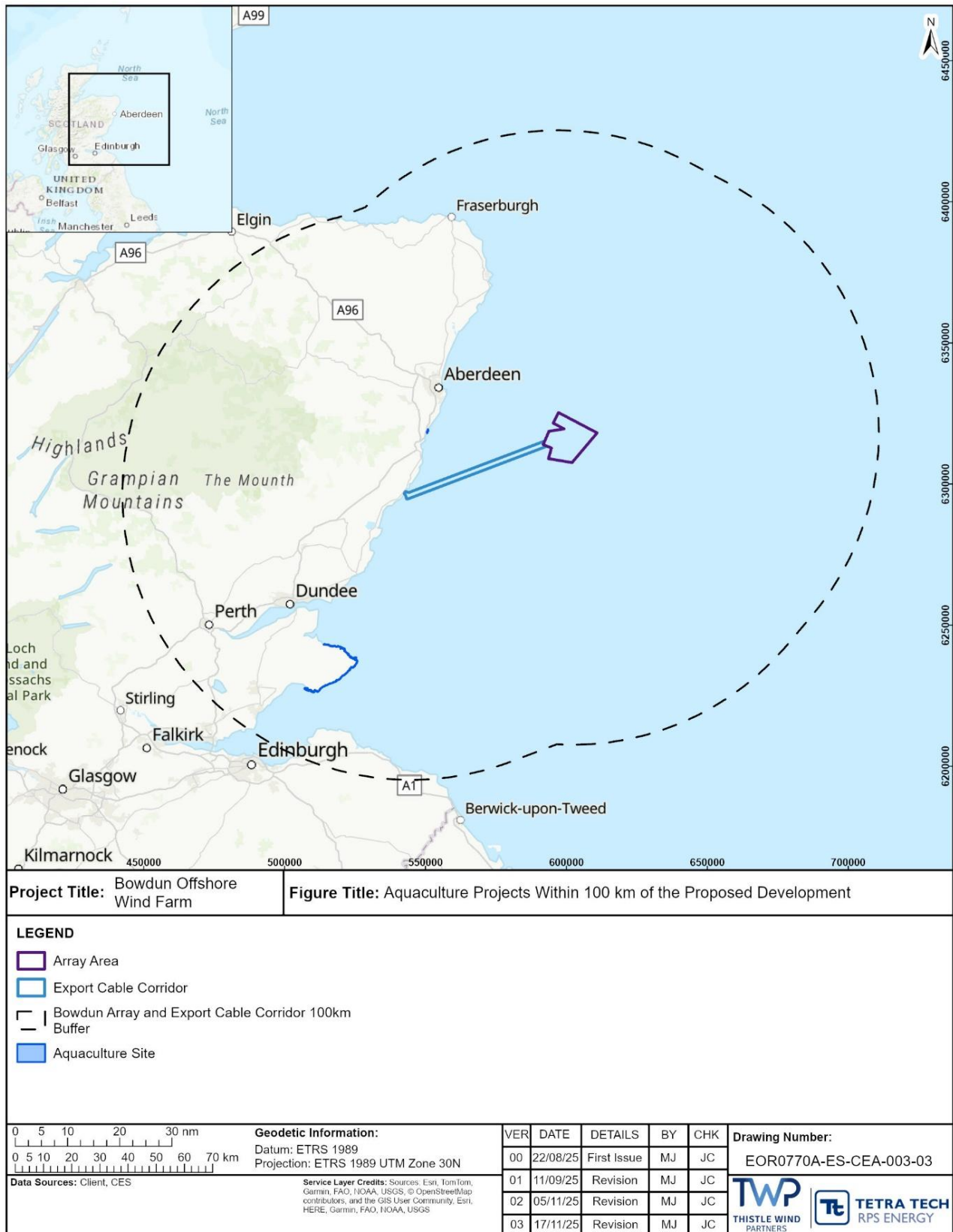


Figure B1.3: Aquaculture Projects Within 100 km of the Proposed Development

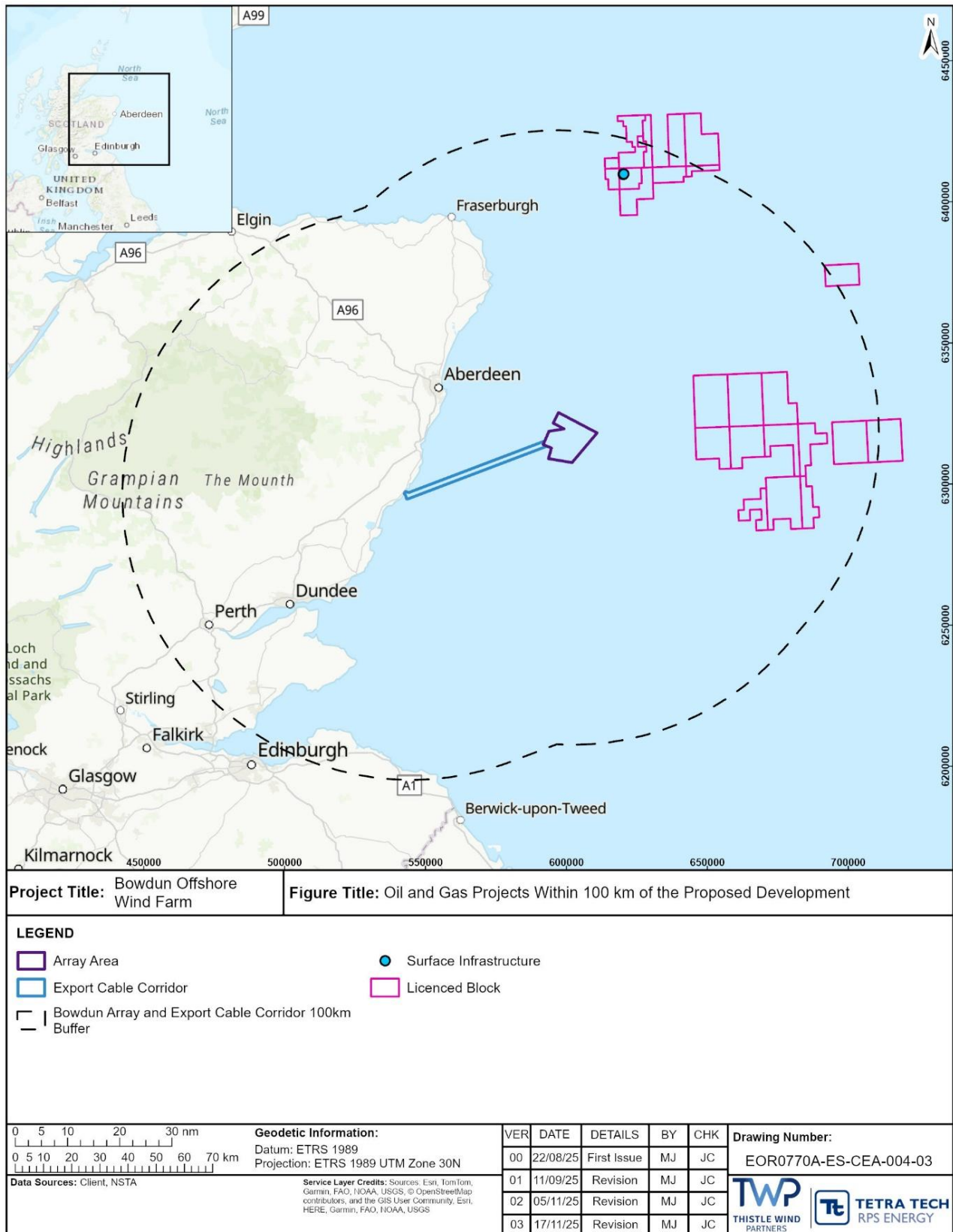


Figure B1.4: Oil and Gas Projects Within 100 km of the Proposed Development

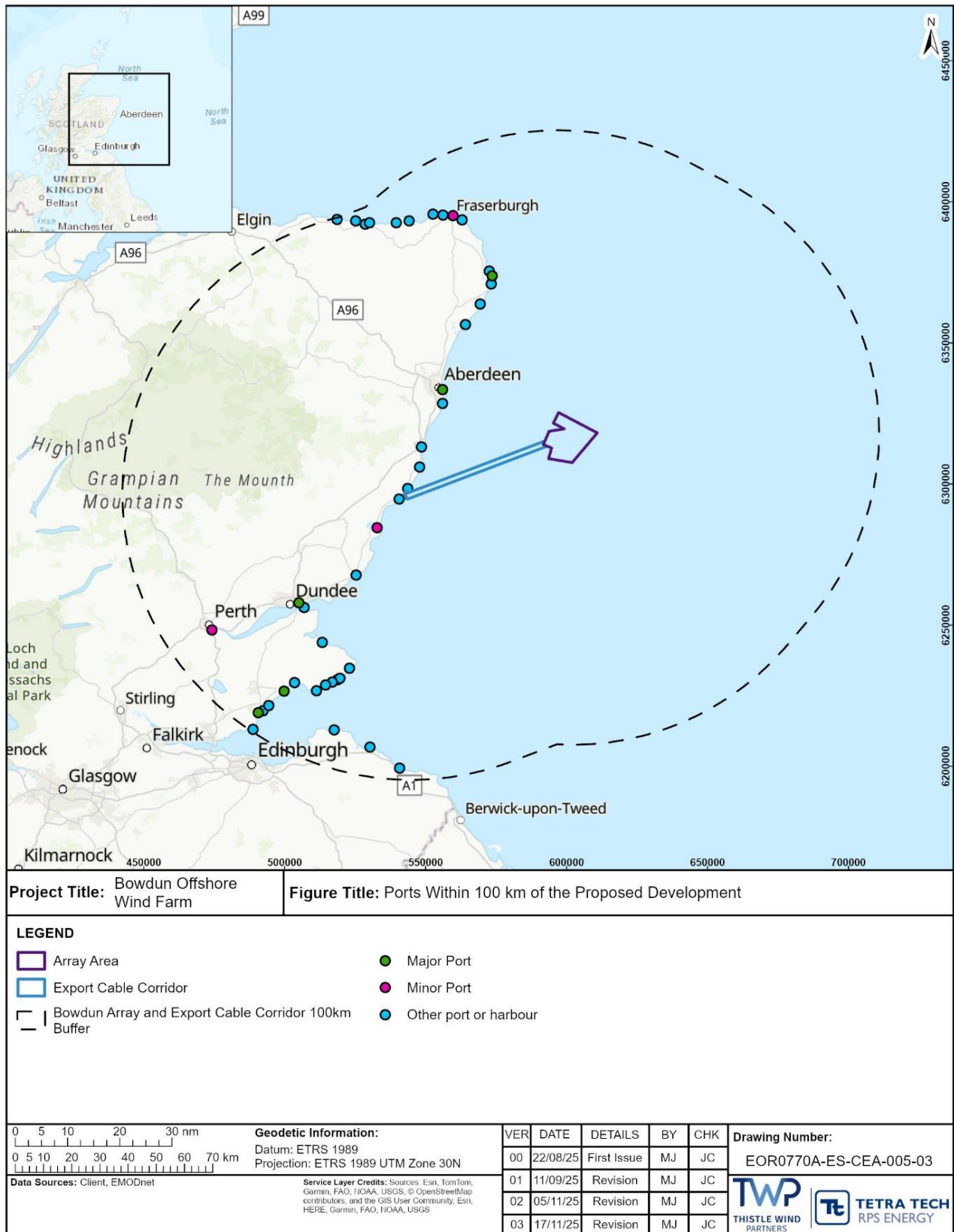


Figure B1.5: Ports Within 100 km of the Proposed Development

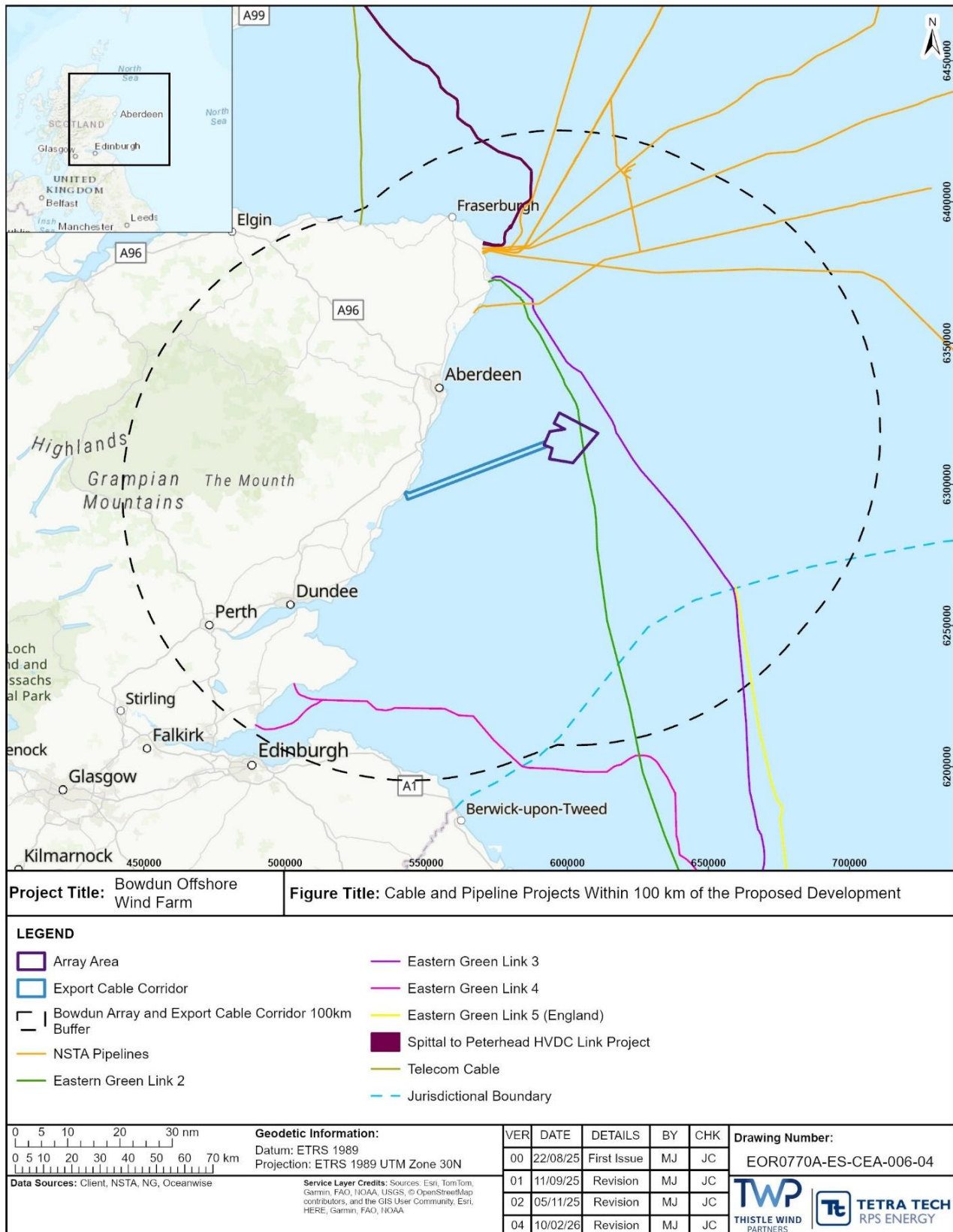


Figure B1.6: Cable and Pipeline Projects Within 100 km of the Proposed Development

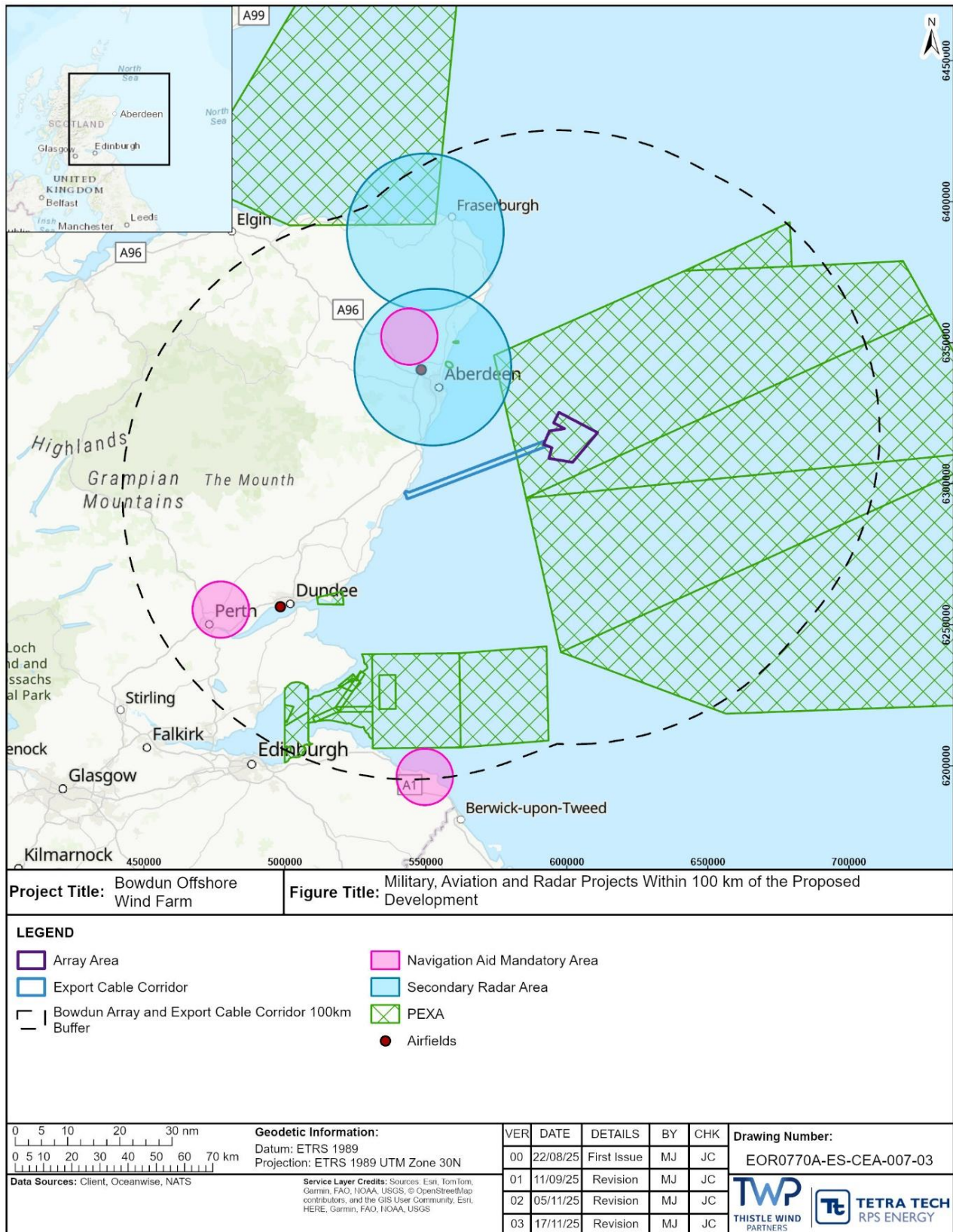


Figure B1.7: Military, Aviation and Radar Projects Within 100 km of the Proposed Development

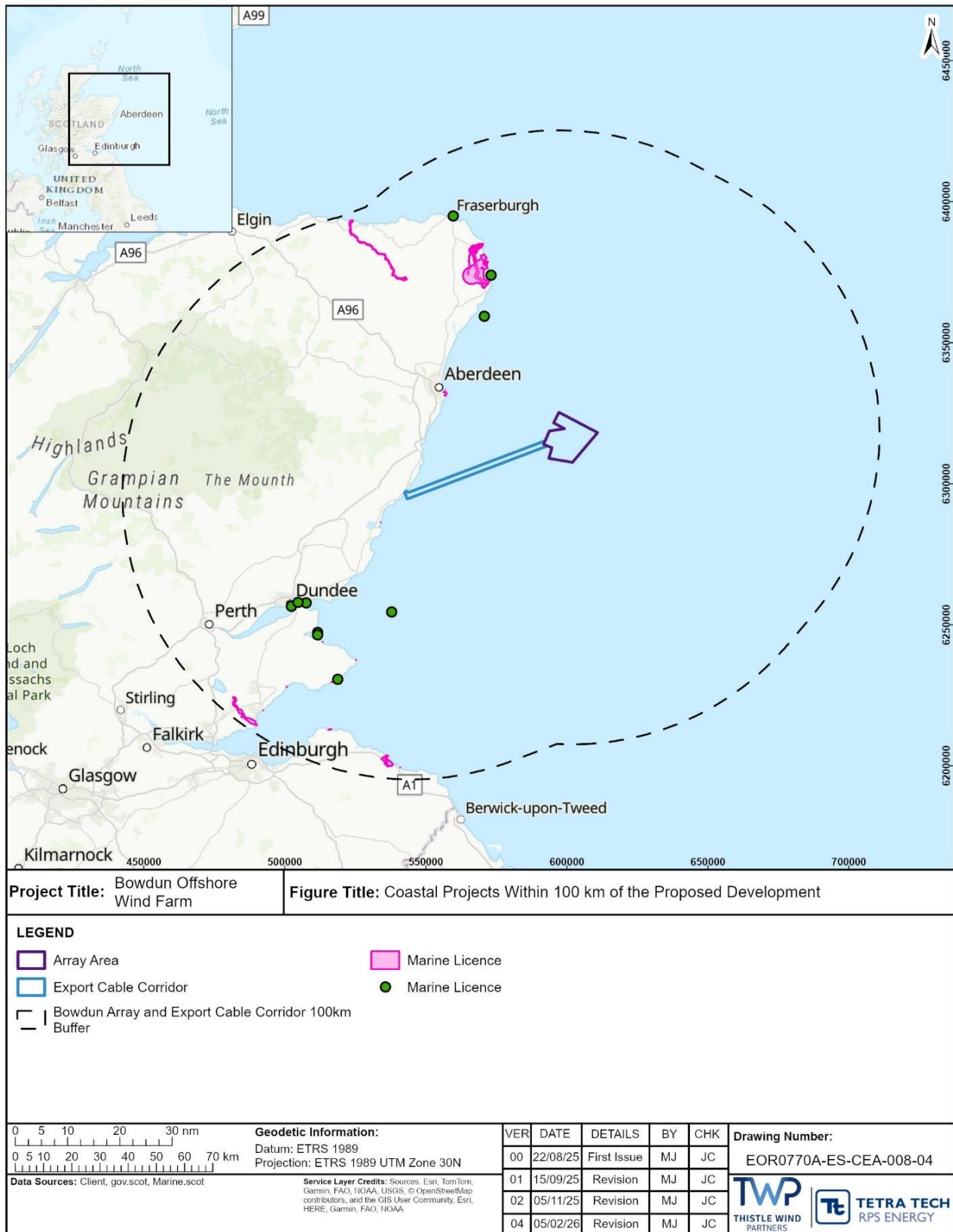


Figure B1.8: Coastal Projects Within 100 km of the Proposed Development