Oriel Wind Farm Project

Planning Report Addendum

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

rps
A TETRA TECH COMPANY

JERA NEX BP

ESB Energy for generations

ORIEL WIND FARM PROJECT

Planning Report - Addendum

MDR1520C
A1 C01
December 2025

Contents

Tables

Figures

Appendices

Acronyms

Term	Meaning
AA	Appropriate Assessment
ABP	An Bord Pleanála
ACP	An Coimisiún Pleanála
CAP	Climate Action Plan
CDP	County Development Plan
CIA	Cumulative Impact Assessment
DAA	Dublin Airport Authority
DOT	Department of Transport
EIAR	Environmental Impact Assessment Report
ESB	Electricity Supply Board
EU	European Union
GHG	Greenhouse Gas
GW	Gigawatt
IRCG	Irish Coast Guard
LAT	Lowest Astronomical Tide
LCC	Louth County Council
LVIA	Landscape Visual Impact Assessment
MAC	Maritime Area Consent
MARA	Maritime Area Regulatory Authority
MCC	Meath County Council
MUL	Maritime Usage Licence
MSO	Marine Survey Office
NDP	National Development Plan
NECP	National Energy and Climate Plan
NIS	Natura Impact Statement
NMPF	National Marine Planning Framework
NPF	National Planning Framework
NPO	National Policy Objective
NPWS	National Parks and Wildlife Service
NSO	National Strategic Outcome
OWL	Oriel Wind Farm
OMP	Operational Monitoring Programme
RED	Renewable Energy Directive
RFI	Request for Further Information
rlb	Red Line Boundary
SLVIA	Seascape Landscape Visual Impact Assessment
TII	Transport Infrastructure Ireland
TJB	Transition Joint Bay
WTG	Wind Turbine Generator

1 INTRODUCTION

1.1 Introduction to the Project

This *Planning Report Addendum* has been prepared by RPS Group Limited (RPS) in response to a Request for Further Information (RFI) containing 19 items issued by An Coimisiún Pleanála (ACP) on 10 April 2025 for an application for permission made by the Applicant, Oriel Windfarm Limited[1] to ACP for the Oriel Wind Farm Project (hereafter 'the Project'). The application was made under Section 291 of the Planning and Development Act 2000, as amended (hereafter, 'the Act').

The Project is situated partially in the outer maritime area, partly in the nearshore area of Louth County Council and partially onshore within the following Townlands in Co. Louth; Dunany, Mitchelstown, Port, Nicholastown (Electoral Division of Dysart in the Barony of Ferrard), Boycetown, Togher, Clonmore, Tullydonnell, Corstown (Electoral Division of Drumcar in the Barony of Ardee), Corstown (Electoral Division of Dunleer in the Barony of Ferrard), Drumcar, Mullincross, Charleville, Dromgoolestown, Richardstown (Electoral Division of Stabannan in the Barony of Ardee), Harristown and Stickillin.

In response to the RFI we have made the following minor amendments to the proposed development:

1. Changes to the realignment of the onshore cable route within the subject planning application boundary from the M1 to the onshore substation.
2. Minor relocation of temporary construction compound 3. M1/Railway, located west of the M1 and the associated access . Also minor relocation of temporary access to temporary construction compound 2. River Dee at Richardstown (west).
3. Reconfigure existing access to onshore substation to TII standards to ensure no right turns onto/off the N33 (i.e. Left In-Left Out).
4. Changes to the location of the Transition Joint Bay (TJB) (options 1 and 2) at Dunany and the onshore cable route within the planning application boundary.

The lifetime of the planning permission sought for a period until the expiry of the Maritime Area Consent (MAC) for the Project on 22 December 2067 has not changed.

Further details of these minor changes is provided in **Section 5** of this report and in enclosed *Environmental Impact Assessment Report* (EIAR) *Addendum* (see volume 2A Addendum, chapter 5 Addendum: Project Description).

1.2 Purpose and structure of the report

The purpose of this *Planning Report Addendum* is to present an update on the land and marine usage planning aspects and planning issues associated with the Project since the submission of the planning application on 24 May 2024 and particularly since receipt of the RFI. The update provides details of further consultations that have occurred with statutory bodies following the issuing of the RFI and any changes to planning policy, legislative context, and project design changes. It is intended to assist ACP in determining whether the Project is in accordance with principles of proper planning and sustainable development, and accordingly whether permission should be granted for the Project. It references other particulars accompanying the original application and new documentation forming part of the response to RFI where relevant. The structure and contents of this Planning Report Addendum is set out in **Table 1-1**.

[1] With an address at the Digital Office Centre, Balheary Demesne, Swords, Co. Dublin, K67 E5AO.

Table 1-1: Planning Report Structure and Contents

No.	Section Title	Description of Key Contents
1	**Introduction**	Introduction to the Oriel Wind Farm Project, purpose and structure of Planning Report Addendum, details of the project team, summary description of enclosures.
2	**Need for the Project**	The updated need for the Project in so far as it is related to the climate imperative, the national target for at least 5 GW of offshore renewable energy, national energy security and other positive impacts arising.
3	**Project Evolution**	The evolution of the Oriel Wind Farm Project is updated.
4	**Consultation**	Consultation with various bodies regarding minor changes to the project, and how the responses have fed into the design of the Project.
5	**The Project**	Details of the minor changes to the Project that have arisen in the preparation of the RFI response.
6	**Key Consenting Legislation**	Key consenting legislation from March 2024 to present.
7	**Planning and Development Policy Context**	An examination of the Project in the context of relevant European, national, regional and local planning and development policy, objectives and guidance published since the lodgement of the planning application in May 2024.
8	**Planning Appraisal**	An updated evaluation of the Project having regard to relevant considerations, policies and objectives and proposed minor design changes.
9	**Conclusion**	Relevant conclusions to aid ACP decision making process with respect to the Project.

The full response to the RFI comprises:

- Cover Letter and Schedule of Documents;
- Planning Report Addendum;
- Directory of Responses to Further Information Request;
- EIAR addendum;
- NIS Addendum;
- Planning Drawings Addendum and Updated Planning Drawing Schedule;
- Response to Submissions Report; and
- Digital files.

2 NEED FOR THE PROJECT

The need for the Project is clearly set out in Section 2 of the *Planning Report* submitted as part of the planning application documentation. Key imperatives identified in the submitted *Planning Report* included:

- The Climate Imperative;
- National target of at least 5 GW of Offshore Renewable Energy;
- National Energy Security; and
- Positive Economic Impacts.

The clear need for the Project remains and since the lodgement of the application on the 24 May 2024, the need for the Project has been reconfirmed with recent policy documents further underpinning this need as detailed below.

2.1 The Climate Imperative

The CAP25 published on 15 April 2025 notes, *inter alia*, that the world's climate continues to rapidly change with temperatures increasing at a greater rate since 1970 than in any other 50-year period over at least the last 2,000 years. Met Éireann's most recent Annual Climate Statement of 2024 has provisionally revealed that 2024 was the fourth warmest on record with an average temperature of 10.72 °C or 1.17 °C above the 1961-1990 climatological standard normal period and 0.55 °C above the 1991-2020 long term average. The year also saw the warmest May on record.

The energy sector continues to be a significant generator of greenhouse gas emissions. Owing to the large scale of renewable energy that offshore wind farms can generate, energy from offshore wind will play a key role in helping to achieve national renewable energy and decarbonisation targets through use of renewable energy sources. These targets are driven by European Union (EU) policy that sets overall renewable energy targets for the EU and specific targets for each member state. The Revised Renewable Energy Directive (RED III) which came into force on 20 November 2023 sets an EU-level binding overall target for renewable energy to comprise at a minimum 42.5% of the Union's energy mix by 2030. The CAP2025 targets a national energy mix of 80% renewable electricity by 2030. The continued widespread development of offshore wind energy is a vital vehicle for achieving our national and EU-level renewable energy targets.

The EU *Blue Economy Report 2025* published on 22 May 2025 provides a review of progress made since 2009 in regard to the use, preservation and regeneration of the marine environment. It has revealed that offshore wind energy values as of 2025 in the EU stand at 18.9 GW or just 24% of the 2030, or 6.3% of the 2050 EU offshore renewable energy target. While in recent years particularly after the COVID-19 pandemic efforts are being made across the EU to increase this, at the current rate there will be a shortfall in achieving the long-term 300 GW EU offshore renewable energy target.

The Project will also contribute meaningfully towards Ireland's net-zero emissions targets and our transition to a low-carbon and climate-resilient, biodiversity-rich, environmentally-sustainable and climate-neutral economy as underpinned by the *Climate Action and Low Carbon Development (Amendment) Act 2021,* as amended. This Act requires relevant authorities to perform their functions in a manner that is consistent with and prioritises policy within the CAP25, in so far as practicable. In addition to the economic gains of pursuing this development, greenhouse gas emissions will be indirectly reduced through the displacement of fossil fuel-related energy usage. As energy demand continues to increase across all sectors in Ireland, these energy demands need to be offset by electricity generated from renewable sources in order for the nation's energy supply to achieve higher levels of sustainability and eventual carbon neutrality.

The culmination of the increase in the average global temperature, ambitious EU-level and national climate policy targeting increases in renewable energy, and Ireland's growing population more than justify the need for the Project. Renewable energy developments in the past decade have transitioned from fiscally risky eco-friendly projects developed by companies for the purposes of promoting their services, to those not only necessary to but in demand for maintaining current local, regional and global environments, while diversifying the corresponding energy mix of the connected grid. Continuing advances in the construction, scale, and efficiency of renewable energy developments continue to be made and are needed to at a minimum maintain the Earths current temperature. By achieving 100% a renewable energy mix at the Irish, EU and global level, a significant step in reversing climate change will have been taken, until this is achieved

it is imperative that renewable energy developments continue to be constructed, operated, and supported at the local, regional, national, EU and global levels.

2.2 Positive Economic Impacts

From an economic perspective, the *EU Blue Economy Report 2025* identifies marine (offshore) renewable energy development as an increasingly valuable sector of the European Economy since 2021 and one which continues to be an important area for employment, gross value addition, gross profit, net investment in tangible goods and turnover. It is clear that the continued development of offshore renewable energy in Ireland will have a very positive impact on the economy broadly through the provision of immediate and long-term employment, along with clean, reliable, cost-effective energy and a reduction in the need to import fossil fuels at current quantities.

Offshore renewable wind energy and the development of such projects therefore has a critical role to play in contributing to the national economy. With the Project capable of delivering up to 375 MW of clean energy, both the Irish and wider EU economies will benefit without the additional need for the costly allocation of capital for intensive climate mitigation measures as needed for fossil fuel energy production developments.

3 PROJECT EVOLUTION

The evolution of the Oriel Wind Farm Project is as set out in Section 3 of the *Planning Report* submitted as part of the planning application document.

The minor revisions to the design now proposed as part of the RFI response are set out in **Section 5.2** of this report.

4 CONSULTATION

4.1 Introduction

The Applicant (Oriel Windfarm Limited (OWL)) has engaged in consultations with the following bodies in their preparation of a response to the RFI:

- The Irish Coast Guard (IRCG) to discuss RFI 2;
- The Marine Survey Office (MSO) to discuss RFI 15.A;
- The National Parks & Wildlife Service (NPWS) to discuss a number of RFI items relating to biodiversity including RFI 1.D, 7, 8.G, 9 and 14;
- The Department of Infrastructure in the Isle of Man (Air Traffic Services) to discuss potential impacts on air traffic control radar systems to discuss RFI 17;
- Transport Infrastructure Ireland (TII) and Louth County Council (LCC) jointly, to discuss RFI 18; and
- ACP to discuss a number of RFI items and the response structure more generally.

The Applicant also corresponded with the daa and AirNav regarding RFI 16 and the Commissioner of Irish Lights regarding RFI 15.B, however no further engagement took place.

4.2 Post Receipt of RFI Consultations Undertaken

Several of the consultees were met with a number of times to ensure their feedback was fully understood and appropriately addressed in the RFI response. Please refer to **Table 4-1** for a comprehensive list of bodies consulted, the dates of these consultations, and the RFI items discussed.

Table 4-1: Details of Consultation Undertaken in preparation of RFI Response

Name of Body	Dates of Meetings	RFI Items Discussed
Irish Coast Guard	• 24 June 2025 • 2 September 2025	• **2** (Search & Rescue Requirements – Site Layout)
Marine Survey Office	• 11 September 2025	• **15.A.** (Shipping & Navigation – Department of Transport / DOT Submission)
National Parks & Wildlife Service	• 7 October 2025	• **1.D.** (Operational Monitoring Programme) • **7** (Ornithology) • **8.G** (Landfall Construction Methodologies) • **9** (Marine Mammals & Megafauna) • **14** (Bats)
Transport Infrastructure Ireland & Louth County Council	• 3 December 2024 • 21 January 2025 • 25 February 2025 • 7 April 2025 • 27 November 2025	• **18** (Roads & Traffic)
Department of Infrastructure in the Isle of Man (Air Traffic Services)	• August & September 2024 (email exchange)	• **17** Transboundary Consultation

Name of Body	Dates of Meetings	RFI Items Discussed
An Coimisiún Pleanála	• 23 October 2025	• **1.A.** (General Matters – RFI Response Structure) • **1.B.** (General Matters – Data Validity) • **1.D.** (OMP) • **3** (NMPF Policies – Habitats & Noise) • **5** (CIA) • **6** (Marine Processes) • **7** (Ornithology) • **8** (Benthic Subtidal & Intertidal Ecology) • **9** (Marine Mammals & Megafauna) • **10** (Fish & Shellfish Ecology)

The specific items discussed and how items raised have been addressed are set out in the response to individual RFI items in the Addendum to the EIAR and NIS. The enclosed *Directory of Responses to Further Information Request* sets out where the response to each RFI item is provided within the RFI response documentation.

4.2.1 Consultation with ACP

On 23 October 2025, the Applicant met with ACP in accordance with the provisions of Article 5(6)(c) of the *Planning and Development (Maritime Development) Regulations 2023, as amended* to consult on a number of items raised in their RFI issued 10 April 2025.

ACP provided the Applicant with comprehensive feedback regarding each RFI item discussed, and how the overall structure of the RFI response should be set out. ACP emphasised the need for clarity regarding the response structure as result of the overall scale of the Project and the extent of items raised in the RFI.

This feedback has directly guided production of the *Directory of Responses to Further Information Request* report and all the associated documentation being submitted in response to the RFI issued by ACP 10 April 2025. The consultation with ACP is referenced further in the response to specific RFI items as appropriate.

4.3 Conclusions in Relation to Consultations

The Applicant and the project team have consulted appropriately in the preparation of the response to the RFI issued by ACP 10 April 2025. Comments and feedback received in these consultations have been fully considered by the Applicant and the project team in the preparation of the *Directory of Responses to Further Information Request* report, this *Planning Report Addendum*, *EIAR Addendum* and *Natura Impact Statement* (NIS) *Addendum*, drawings and all associated documentation being submitted in response to the RFI.

The specific items discussed and how items raised have been addressed are set out in the response to individual RFI items. The enclosed *Directory of Responses to Further Information Request* report sets out where the response to each RFI item is provided within the RFI response documentation.

The design of the Project and the contents and layout of the response to the RFI are informed by the advice given by ACP at both the pre-application and the RFI phases of the Project.

5 THE PROJECT

5.1 Overview of the Project

The Project comprises an offshore wind farm with associated electrical infrastructure including an onshore and an offshore substation and associated underground and subsea cables. A schematic representation of the Project including the onshore and offshore elements is shown in **Figure 5-1**.

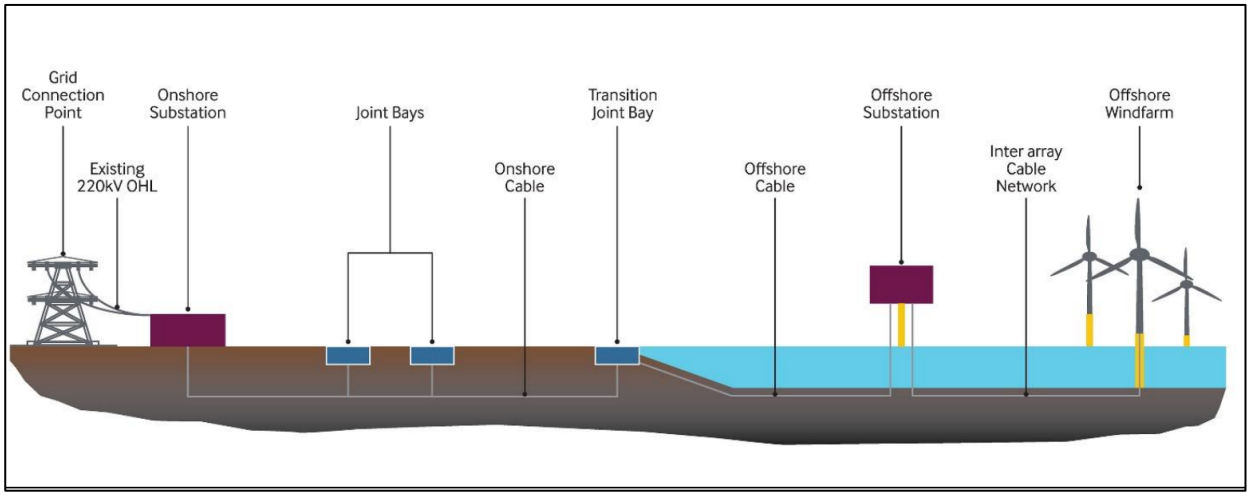


Figure 5-1: Schematic Representation of Key Components of the Project

The Project is described in some detail in section 5 of the *Planning Report* submitted as part of the planning application and specifically consists of:

- The offshore wind farm area which is where the offshore wind farm components will be located within the Irish Sea, to the east of Dundalk Bay and approximately 22 km east of Dundalk Town Centre. This area will include the offshore wind turbine generators (WTG) and their associated foundations on the seabed, inter-array cables, the offshore substation in addition to a portion of the "export cable" (i.e. the cable which exports renewable energy generated from the offshore substation).
- The offshore cable corridor: This is where the offshore export cable will be largely located. The offshore cable extends from the offshore wind farm area to a landfall location south of Dunany Point.
- The onshore cable route which is proposed to be located underground primarily along existing public roads between the landfall location and the onshore substation location which is situated approximately 20.1 km to the east of that in the Townland of Stickillin to the east of Ardee in Co. Louth. It is proposed that the underground onshore cable and associated underground components (joint bays and link boxes) will be located within a trench of approximately 1 m in width.
- The onshore substation location which is proposed to be located in an agricultural field where the proposed onshore substation including the connections to the existing 220 kV overhead electricity transmission system power line (National Grid) will be located.

5.2 Revisions to Proposed Project as part of RFI Response

In preparing the response to the RFI there have been minor changes to the proposed development comprising four main elements:

1. Realignment of the cable route within the subject planning application boundary from the M1 to the onshore substation as shown in the enclosed drawing nos. PE605-D027-105-002-005 (*Existing Utilities and Proposed Development Sheet 2 of 13*), PE605-D027-105-003-004 (*Existing Utilities and Proposed Development Sheet 3 of 13*), PE605-D027-105-004-005 (*Existing Utilities and Proposed Development Sheet 4 of 13*), PE605-D027-105-005-005 (*Existing Utilities and Proposed Development Sheet 5 of 13*).

2. Changes to location of the TJB (options 1 and 2) at Dunany and onshore cable route within the planning application boundary to avoid impacts on the sedimentary sea cliff at Dunany Beach as shown in the enclosed drawing nos. PE605-D027-105-013-005 (*Existing Utilities and Proposed Development Sheet 13 of 13*).
3. Minor amendment to temporary compound west of the M1 to facilitate the HDD Crossing under the M1 motorway and Dublin-Belfast Rail line.
4. Existing access to the onshore substation will be reconfigured to TII standards to ensure Left In-Left Out operation.

These design changes were made in response to the submission made by TII to further reduce impacts on the N33 and to avoid impacts to the sedimentary cliff at Dunany as set out in chapter 5 Addendum: Project Description (EIAR volume 2A Addendum). **Figures 5-2 to 5-4** show the realigned cable and **Figure 5-5** shows the revised location of TJB at Dunany.

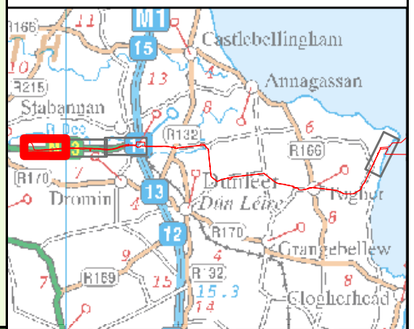
For further detail regarding the above design changes, refer to EIAR volume 2A Addendum (chapter 5 Addendum: Project Description) of the enclosed EIAR Addendum.

Legend

- Planning Application Boundary
- Proposed Amended Onshore Cable Route
- Proposed Onshore Cable Route
- Proposed Joint Bay Locations
- Proposed Transition Joint Bay Option One
- Proposed Transition Joint Bay Option Two
- Line Cable Interface Mast (LCIM)
- Compound 1 - GIS
- Compound 2 - AIS
- Cable Pulling Temporary Hardstand
- Temporary Construction Compound (substation)
- Temporary Construction Compound (underground cable installation)
- Temporary Storage Area
- Temporary Construction Area
- Amended Temporary Accesses
- Proposed Temporary Accesses

Note: The Applicant has proposed an amended onshore cable route (between the onshore substation and joint bay 4; and the section between L2226 and the M1 (at joint bay 8)) and also amended two temporary accesses (onto the N33) in response to a further info

Data Sources: OWL; OSi.



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

Figure 5-2: Proposed Realignment of Cable Route at Onshore Substation

Map 1

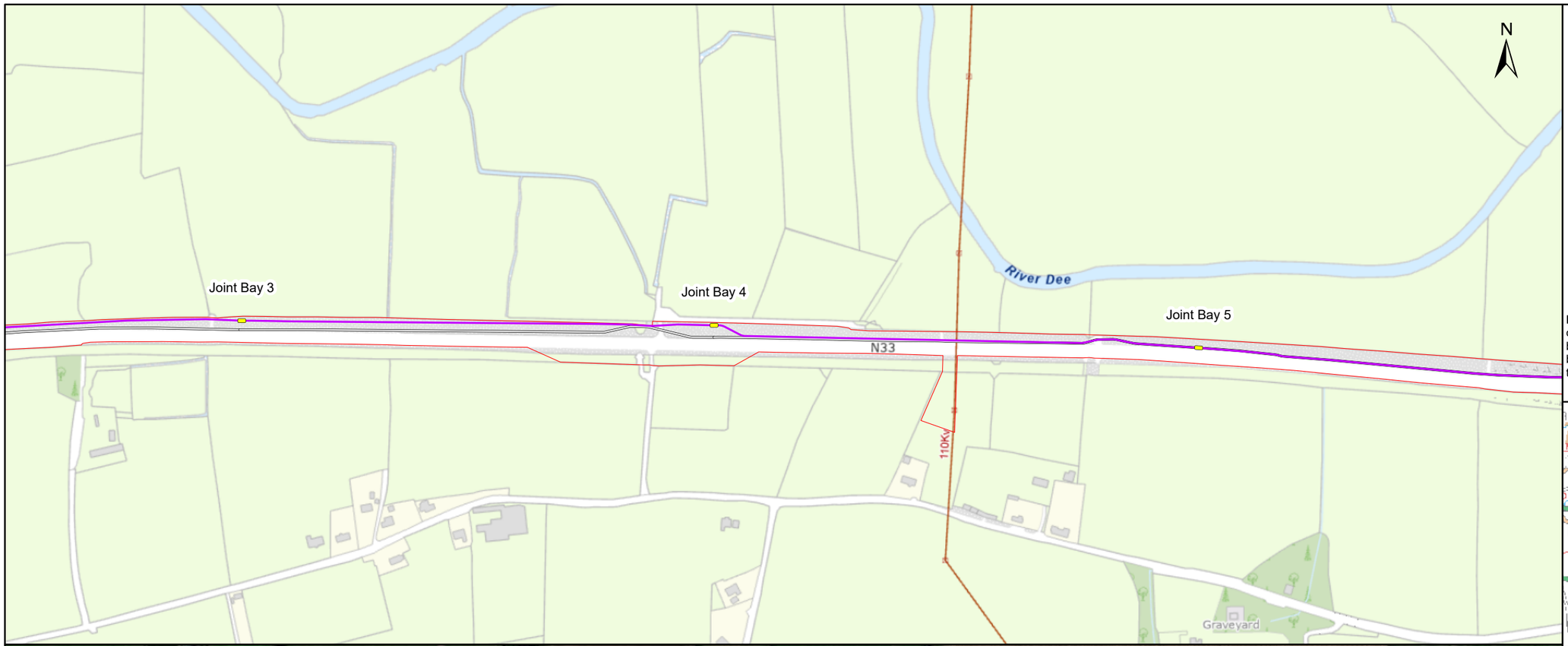
RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

Issue Details

Drawn By: NR	**Project No.** MDR1520c
Checked By: CC	**File Ref:**
Approved By: CC	MDR1520c-RPS-AP-XX-D-Z-0037.A1.C01
Scale: 1:6,000 @ A3	**Projection:**
Date: 11/12/2025	ITM (IRENET95)

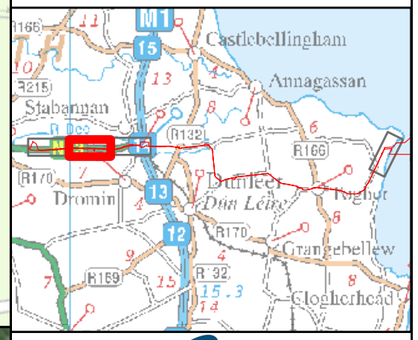


Legend

- Planning Application Boundary
- Proposed Amended Onshore Cable Route
- Proposed Onshore Cable Route
- Proposed Joint Bay Locations
- Proposed Transition Joint Bay Option One
- Proposed Transition Joint Bay Option Two

Note: The Applicant has proposed an amended onshore cable route (between the onshore substation and joint bay 4; and the section between L2226 and the M1 (at joint bay 8)) and also amended two temporary accesses (onto the N33) in response to a further info

Data Sources: OWL; OSi.



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

Figure 5-3: Proposed Realignment of Cable Route

Map 2

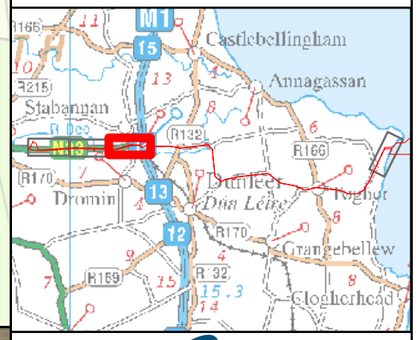
RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

Issue Details

Drawn By: NR	**Project No.** MDR1520c
Checked By: CC	**File Ref:**
Approved By: CC	MDR1520c-RPS-AP-XX-D-Z-0037.A1.C01
Scale: 1:6,000 @ A3	**Projection:**
Date: 11/12/2025	ITM (IRENET95)



Legend

- Planning Application Boundary
- Proposed Amended Onshore Cable Route
- Proposed Onshore Cable Route
- Proposed Joint Bay Locations
- Proposed Transition Joint Bay Option One
- Proposed Transition Joint Bay Option Two
- Temporary Construction Compounds
- Amended Proposed HDD Compounds
- Proposed HDD Compounds
- Amended Temporary Accesses
- Proposed Temporary Accesses
- High Pressure Transmission Gas Main
- Onshore Cable Crossing 1-8

Note: The Applicant has proposed an amended onshore cable route (between the onshore substation and joint bay 4; and the section between L2226 and the M1 (at joint bay 8)) and also amended two temporary accesses (onto the N33) in response to a further info

Data Sources: OWL; OSi.

Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

Figure 5-4: Proposed Realignment of Cable Route

Map 3

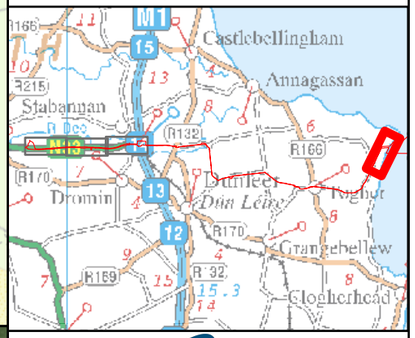
RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

Issue Details

Drawn By: NR	**Project No.** MDR1520c
Checked By: CC	**File Ref:**
Approved By: CC	MDR1520c-RPS-AP-XX-D-Z-0037.A1.C01
Scale: 1:6,000 @ A3	**Projection:**
Date: 11/12/2025	ITM (IRENET95)



Legend

- Planning Application Boundary
- Proposed Amended Onshore Cable Route
- Proposed Onshore Cable Route
- Proposed Joint Bay Locations
- Proposed Passing Bay
- Amended Proposed Transition Joint Bay Option 1
- Amended Proposed Transition Joint Bay Option 2
- Proposed Transition Joint Bay Option One
- Proposed Transition Joint Bay Option Two
- Temporary Construction Compounds
- Amended Temporary Accesses
- Proposed Temporary Accesses

Note: The Applicant has proposed amended locations for the Transition Joint Bays (options 1 and 2) in response to a further information request from An Coimisiún Pleanála

Data Sources: OWL; OSi.

Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

Figure 5-5: Proposed Realignment of Cable Route

Map 4

RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

Issue Details

Drawn By: NR	**Project No.** MDR1520c
Checked By: CC	**File Ref:**
Approved By: CC	MDR1520c-RPS-AP-XX-D-Z-0037.A1.C01
Scale: 1:6,000 @ A3	**Projection:**
Date: 11/12/2025	ITM (IRENET95)

5.2.1 Relevant Planning History within or adjacent to the Red Line Boundary

Since the completion of the *Planning Report* in March 2024, submitted as part of the planning application to ACP in May 2024, there have been no new planning applications, planning application decisions, or appeals against a planning application decision within the planning application boundary (i.e. the red line boundary (rlb). There have been several new planning applications and planning application decisions on lands directly adjacent to the rlb along the route between the onshore cable and onshore substation, please refer to **Table 5-1**. These are primarily small-scale residential or agricultural developments. Refer to **Appendix B Addendum** for the relevant planning maps showing the location and site boundary of planning applications referenced in **Table 5-1** lodged since the completion of the *Planning Report* in March 2024.

Table 5-1: Relevant Planning History – Updated data from March 2024 – September 2025

Reg. Ref. No.	Summary of Development	Status at time of writing
LCC 2468	Subsequent permission from outline permission reg. ref. 21870 for a new single storey dwelling house, wastewater treatment system, percolation area, new vehicle access onto public road (Dunany Lane) and all associated site works.	Permission granted by LCC 15/07/2024
LCC 23399	Permission for the change of use of part of the ground floor from residential to restaurant use. A new rear single storey flat roof extension. New window openings and reconfiguration of existing openings to front, rear and side elevations. New opening for kitchen extracts. New enclosed bin store. Replace existing metal roof with new metal roof. New illuminated advertising to existing building and standalone illuminated advertising to perimeter of site. Demolition and reconstruction of unsafe existing store to front. New outdoor seating area associated with change of use within existing front garden. New pedestrian access path connecting the new outdoor seating area with the parking area to the rear. New parking layout including electrical vehicle charging spaces and bicycle parking. Closing up on existing vehicle entrance and formation of new vehicle entrance. All associated landscaping, drainage, ancillary site works and services.	Permission granted by LCC 16/09/2024
LCC 2360523	Permission for a new agricultural storage shed with concrete apron and all associated site development works.	Permission granted by LCC 22/07/2024
LCC 2460374	Subsequent permission from outline permission reg. ref. 21969 for a dwelling house, waste water treatment system and percolation area, roadside vehicular entrance and all associated works.	Permission granted by LCC 23/09/2024
LCC 2460542	Subsequent permission from outline permission reg. ref. 21687 for a dwelling house, septic tank and percolation area, detached domestic garage and all associated site works.	Permission granted by LCC 02/12/2024
LCC 2460559	Retention permission for the change of use of an existing agricultural garage and workshop to commercial use as an exercise and recreational facility since 2018 and all associated works.	Permission refused by LCC 08/11/2024
LCC 2560397	Permission for the conversion and extension of an existing garage to a semi-independent 2-bedroom living accommodation for persons with special needs, connection to existing effluent treatment system and all associated site works.	Further Information Requested by LCC 18/08/2025

There have been no new applications, planning decisions, or appeals against a planning decision made to ABP / ACP within or adjacent to the application boundary since the completion of the *Planning Report* in March 2024. Recent planning applications and decisions in the wider vicinity are considered in the enclosed EIAR Cumulative Impact Assessment Addendum (see EIAR volume 2A Addendum, appendix 3-2).

A recent grant of planning permission of relevance, although some distance from the subject site is a 10-year permission development at Greenore Port comprising of Operation and Maintenance (O&M) Facilities (Reg. Ref. 2460294) which will serve as a support base for future offshore wind arrays in the Irish Sea. The LCC *Planner's Report* concluded that arising from "*policy objectives pertaining to the operation of ports including Greenore, rural nodes and renewable energy, it is considered that the proposed development is in principle acceptable".* This is indicative of the policy support for the delivery of offshore wind energy.

5.2.2 Relevant Planned Developments Irish Sea

There are no pending or permitted Maritime Area Consent (MAC) or Maritime Usage Licence (MUL) applications for development in the Irish Sea within, adjacent or near to the Project planning application boundary.

Within the Irish Sea more widely a number of offshore wind farm applications have been submitted since the submission of the subject application, all of which before ACP.

The “North Irish Sea Array” comprises two options, only one of which will be constructed; 49 no. wind turbine generators of 290 m in height or 35 no. wind turbine generators of 311 - 316m in height located c. 11.3km of the coast of Bremore. The application was lodged on 12 December 2024 (ACP Ref. OA29N.319866). Further information was requested by ACP on 10 April 2024 and a request to extend the period in which a response may be submitted to ACP until 14 August 2026 as submitted to ACP on the 6 October.

The “Codling Wind Park” comprises two options, only one of which will be constructed; 75 no. wind turbine generators of 288 m in height or 60 no. wind turbine generators of 314 m in height located c. 13 - 22km of the coast of County Wicklow. The application was lodged on 6 September 2024 (OA29N.320768). Further information was requested by ACP on 01 August 2025.

The “Arklow Bank Wind Park 2” comprises two options, only one of which will be constructed; 56 no. wind turbine generators of 273 m in height or 47 no. wind turbine generators of 287m in height located c. 6 - 15km of the coast of Counties Wicklow and Wexford. The application was lodged on 6 June 2024 (OA27.319864). Further information was requested by ACP on 10 April 2025.

6 KEY CONSENTING LEGISLATION

The application for planning permission for the Project has been made in accordance with the relevant legislation. Since the preparation of the planning report and submission of the subject planning application new legislation has been introduced as detailed below.

6.1 European Union (Planning and Development) (Renewable Energy) Regulations 2025

The 2023 EU RED III, which aims to increase the share of renewable energy in the EU's gross final consumptions of energy, was transposed into Irish Law as the *European Union (Planning & Development) (Renewable Energy) Regulations 2025* (S.I. 274 of 2025), or the 'Renewable Energy Regulations' and were published on 6 August 2025.

The Renewable Energy Regulations amended both the Act and the *Planning and Development Regulations 2001*, as amended ('the Regulations').

The subject application for permission for development was made under Section 291 of the Act. Section 291 of the Act has since been subject to minor amendments by the *European Energy Regulations*.

However, these amendments to Section 291 and wider amendments to the Act and Regulations apply specifically for 'an application or request made' to ACP or a planning authority made after 1 October 2025 regarding a new project, and not one actively or pending consideration by ACP. This new legislation is therefore not relevant to the subject application and is not considered further herein.

7 PLANNING AND DEVELOPMENT POLICY CONTEXT

This section of the *Planning Report Addendum* sets out the relevant planning and development policy context which has been adopted since the preparation of the Planning Report for the Application in March 2024. It firstly considers relevant policies and directives at the European level before then addressing key planning policies at a national, regional and local planning policy level against which the Project will be assessed.

7.1 Relevant European Planning and Development Policy

In this section, relevant policies and directives that have come into force / been updated at a European level since March 2024 are considered in relation to the Project.

7.1.1 The EU's 2030 Climate and Energy Framework

The EU's *2030 Climate and Energy Framework,* which sets targets and policy direction for climate and energy in Europe, was updated throughout late 2023 with the most recent updates completed in late 2024. The total update raised the greenhouse gas (GHG) emissions reduction target for 2030 from the previous ambition of 40% (compared with 1990 levels) to 55%. It also establishes a binding EU-level target of at least 40% renewable energy in the energy mix by 2030. This project complies with this strategy as it delivers renewable energy, which has now even more importance given the higher target for renewable energy.

7.2 Relevant National Planning and Development Policy

In this section, relevant national level planning and development policies that have been updated and / or adopted since March 2024 are considered in relation to the Project.

7.2.1 Project Ireland 2040 – First Revision to the National Planning Framework

The *National Planning Framework First Revision* ('the Revised NPF') was published on 8 April 2025. The NPF is the primary articulation of spatial, planning and land use policy in Ireland. It builds on the previous targets contained within the 2018 NPF by aligning national level policy with the that of the relevant European level, including the EU's *2030 Climate and Energy Framework*. It adjusts climate and infrastructure policy targets in response to 2022 Census data and global economic and climate trends.

Chapter 9.1 of the Revised NPF contains 9 overarching aims focused on resource efficiency and the transition to a climate neutral economy. One of which is 'Renewable Energy' which promotes Ireland's transition to a climate neutral energy future, and is supported by several National Policy Objectives (NPO).

NPO 55 states the following:

*"To support, the **progressive development of Ireland's offshore renewable energy potential, the sustainable development of enabling onshore and off-shore infrastructure** including domestic and international grid connectivity enhancements, non-grid transmission infrastructure, as well as port infrastructure for the marshalling and assembly of wind turbine components and for the operation and maintenance of offshore renewable energy projects."* (Emphasis added)

NPO 67 states the following:

*"Support the circular and bio economy including in particular through greater efficiency in land and materials management, promoting the sustainable re-use and refurbishment of existing buildings and structures while conserving cultural and natural heritage, the **greater use of renewable resources** and by reducing the rate of land use change from urban sprawl and new development."* (Emphasis added)

NPO 70 states the following:

*"**Promote renewable energy use and generation** at appropriate locations within the built and natural environment to meet national objectives towards achieving a climate neutral economy by 2050."* (Emphasis added)

NPO 71 states the following:

"Support the development and upgrading of the national electricity grid infrastructure, including ***supporting the delivery of renewable electricity generating development****."* (Emphasis added)

National Strategic Outcome (NSO) 8 '*Transition to a Carbon Neutral and Climate Resilient Society'* identifies the risk Climate Change poses to the island of Ireland, and emphasises renewable energy in the form of offshore wind, wave and solar as a climate adaptation measure necessary for a future affected by Climate Change and ongoing decarbonisation efforts placing massive strain on energy systems across Ireland. Renewable energy developments like the Project will greatly assist in decarbonisation, reducing energy demand and diversifying existing energy networks.

The Project is consistent with the Revised NPF and the NPOs and NSOs contained within it.

7.2.2 Programme for Government 2025 – Securing Ireland's Future

The *Programme for Government* published 23 January 2025 outlines the programme for the new Government. The Programme states that:

"Government recognises that delivery of essential infrastructure is a key driver in attracting and retaining investment in Ireland, growing our economy, fostering regional development, delivering on our housing targets and achieving our ambitious climate goals."

Further to this overall objective, the Programme states that:

"The Government is committed to achieving 80% of Ireland's electricity generation from renewable sources by 2030….

The Government will:

- *Deliver…at least 5GW of offshore wind by 2030.*
- *…focus on attracting and retaining capital investment to drive offshore wind development."*

The Project will greatly contribute towards the Government's commitment to achieving an energy mix comprising 80% renewable sources and 5 GW of offshore wind by 2030.

7.2.3 National Development Plan Review 2025

On 22 July 2025, the Government published the *National Development Plan Review 2025* (NDP Review). The NDP Review sets out at a high level Government spending plans over the period from 2025 to 2030. Energy is identified as one of the sectors in which increased spending is to be prioritised. The NDP Review will provide for the provision of up to €3.5 billion in new equity to support investment in electricity grid infrastructure over 2026 – 2030. €2 billion will be provided to EirGrid and €1.5 billion to ESB. This government equity will enable both companies to significantly increase capital investment to expand electricity transmission and distribution network infrastructure.

Following on from the NDP Review the *Sectoral Capital Plan: Department of Climate, Energy and the Environment* published in November 2025 sets out the strategic investment priorities for the Department over the next five years. The Sectoral Plan provides for significant investment in offshore grid infrastructure.The Project clearly accords with the intent of the NDP Review to increase the production and distribution of renewable energy.

7.2.4 Climate Action Plan 2025

The *Climate Action Plan 2025* (CAP25) published on 15 April 2025 is Ireland's third statutory annual update to the nation's Climate Action Plan (CAP) under the Climate Action and Low Carbon Development (Amendment) Act 2021 and builds upon CAP24 and previous CAPs while also setting out new targets over a longer period.

CAP25 commits Ireland to achieving a minimum 51% reduction in GHG emissions by 2030 compared to 2018 levels, with net-zero carbon emissions by 2050. This is enforced by an improved legally-binding carbon budget framework containing carbon budgets for 2025, 2027, and 2030. The framework is aligned with both national and EU-level legislation and provides support for the rapid expansion of renewable energy capacity, the phasing out of fossil fuel subsidies and coal, and an increase in the electrification of heat and transportation.

Renewable energy development, including the generation, storage and transmission of is a key component of CAP25. Offshore wind capacity is targeted for 5 GW total by 2030, consistent with CAP24. Coordination between agencies such as the Maritime Area Regulatory Authority (MARA), ACP, Local Authorities and other relevant bodies is increased to speed up consultations, licensing processes (Maritime Area Consents (MAC) and Maritime Usage Licences (MUL)), and decision periods for offshore energy projects. EIA and AA processes also benefit from this increased coordination while receiving new tailored processes specific to offshore energy projects.

The Project will greatly increase Ireland's offshore wind energy generation and capacity while assisting the nation in achieving the legally-binding emissions reduction targets of CAP25.

7.2.5 Future Framework for Offshore Renewable Energy

The *Future Framework Policy Statement for Offshore Renewable Energy* published on 1 May 2024 outlines the national long-term ambitions with regard to offshore renewable energy of 20 GW by 2040 and 37 GW by 2050 and it lays down a roadmap of how they will be achieved. The Future Framework for Offshore Renewable Energy includes 29 no. key actions including 7 no. priority actions, to develop Ireland's long-term, plan-led approach to offshore wind.

7.2.6 National Energy and Climate Plan 2021-2030 (NECP)

The *National Energy and Climate Plan 2021-2030* was updated on 22 July 2024 to align with energy and emissions targets contained within the updated *Climate Action and Low Carbon Development (Amendment) Act 2021* (as amended) and *Climate Action Plan 2025*. This includes the targets of a reduction of GHG emissions by 51% by 2030 compared to 2018 levels, and an increase in renewable energy to 42.5-25% of gross final energy consumption by 2030, from the previous 40% target.

The Project will continue to deliver renewable energy, supporting the reduced use of fossil fuels and Ireland's 2030 targets for GHG emissions in a manner that is consistent with the trajectory to achieve net zero emissions by 2050, as per the aligned plans.

7.3 National Marine Planning Framework

The *National Marine Planning Framework* (NMPF) has not been updated since the submission of the planning application in March 2024 and was considered in Section 7.2.2 of the *Oriel Wind Farm Project Planning Report* submitted with the application.

Item 3 of the RFI has however required the preparation of a *NMPF Compliance Report*. This report is submitted as part of the RFI response. The updated *NMPF Compliance Report* is included as Appendix A to this Planning Report Addendum.

7.4 Relevant National Planning Guidance

Since submission of the application for planning permission on the 24 May 2024, no new national planning guidance documents relevant to the subject Project have been published.

7.5 Relevant Planning Policy in Northern Ireland

Since submission of the application for planning permission on the 24 May 2024, no new planning policy documents relevant to the subject Project have been published.

7.6 Relevant Regional Planning and Development Policy

Since submission of the application for planning permission on the 24 May 2024, no new regional planning policy relevant to the subject Project have been published.

7.7 Local Planning and Development Policy Context

Since submission of the application for planning permission on the 24 May 2024, no new local planning policy relevant to the subject Project have been published.

As of November 2025, Louth County Council has served notice pursuant to Section 11(1) of the Act stating the intention to commence a review of the existing *Louth County Development Plan 2021-2027* (CDP) and to prepare a new County Development Plan for the period 2027-2033. A *Pre-Draft Strategic Issues Paper* (Pre-Draft Issues Paper) was published on 23 September 2025 inviting submissions from the public from 23 September to 21 November 2025. The Pre-Draft Issues Paper notes that Ireland has set a target of reducing GHG emissions by 51% by 2030.

7.8 Conclusions in relation to Planning and Development Policy Context

There is continued support in the relevant policies, objectives and guidelines updated since the submission of the planning application in May 2024 for the Project. Local, regional, national, and EU-level policies and development plans particularly coalesce around a number of overriding infrastructure and climate objectives. The Project will continue to be fully compliant with and aligned to these policies. In summary:

EU's 2030 Climate and Energy Framework: The Project will contribute towards the late 2024 updated targets of 55% reduction in EU GHG emissions from 1990 levels, progressing towards an EU-level energy mix comprising 40% renewables. The increase of this target correspondingly raises the overall value of planned, proposed, permitted and operational renewable energy developments throughout Ireland and the EU, and in particular the Project itself.

First Revision to the National Planning Framework: The Project is consistent with the April 2025 revision to the National Planning Framework and specifically the 1 no. NSO and 4 no. NPOs identified as most relevant. The Project will represent progressive and sustainable development and the generation and use of renewable energy in an offshore location, which will in turn aid both Irish and EU efforts in the implementation of climate adaptation measures by diversifying the energy mix of Ireland and by extension the EU.

Programme for Government 2025 – Securing Ireland's Future: The Project continues to be supported by the programme as part of the renewable energy sector targeted for large-scale capital investment and continued sectoral growth within the January 2025 publication.

NDP Review: The Project will benefit from the increase in capital allocated for energy projects within the 2025 NDP Review, which will assist in the rapid provision of new grid connectivity works while ensuring EirGrid and ESB have sufficient funding to enable new grid connections from large-scale energy projects such as the Project.

Climate Action Plan 2025: The Project will directly assist Ireland in progressing towards the 51% reduction in GHG emissions by 2030 compared to 2018 levels and net-zero carbon emissions by 2050, by increasing renewable energy as part of Ireland's energy mix. It will also provide approximately 7.5% of the 5 GW offshore wind capacity targeted by the April 2025 publication.

Future Framework for Offshore Renewable Energy: The Project will support the further development of key actions set out in a new or revised framework. At all stages of the Projects lifetime, the key actions of the framework may be changed as result of experience gained in the offshore renewable energy sector.

National Energy and Climate Plan 2021-2030: The Project will indirectly contribute to the reduction of GHG emissions and directly in the case of providing an increase in renewable energy as part of Ireland's gross energy consumption mix.

8 PLANNING APPRAISAL

The need for the Project has been set out in section 2 of the *Planning Report* submitted with the planning application and in **section 2** of this *Planning Report Addendum*.

The Project is compliant with all relevant European, National, Regional and Local Policies. For further details, please refer to s**ection 7** of this *Planning Report Addendum*.

8.1 Environmental Impact Assessment Report Addendum

An EIAR Addendum has been prepared for the Project including Addenda chapters and associated appendices including new technical reports. These Addenda chapters and appendices have been updated to respond to the RFI issued by ACP and undertake all necessary additional or enhanced assessments. The EIAR Addendum includes the following updated chapters; Chapters 1 (*Introduction*), 5 (*Project Description*), 7 (*Marine Processes*), 8 (*Benthic, Subtidal and Intertidal Ecology*), 9 (*Fish and Shellfish Ecology*), 10 (*Marine Mammals and Megafauna*), 11 (*Offshore Ornithology*), 12 (*Commercial Fisheries*), 13 (*Shipping and Navigation*), 14 (*Aviation, Military, and Communications*), 15 (*Marine Archaeology*), 17 (*Climate*), 19 (*Onshore Biodiversity*), 21 (*Soil, Geology and Hydrogeology*), 24 (*Risk of Major Accidents and Natural Disasters),* 25 (*Noise (Airborne) and Vibration*), 26 (*Cultural Heritage*), 27 (*Seascape, Landscape and Visual Amenity),* 28 (*Traffic and Transport*) and 31 (*Bats in the Marine Environment*) of the EIAR. Details of the chapters and appendices are set out in the *Schedule of Documents* appended to the enclosed cover letter.

The EIAR Addendum has identified that no additional significant negative effects arise from the Project.

8.2 Natura Impact Statement Addendum

An NIS Addendum has been prepared. The NIS Addendum addresses items arising from the RFI issued by ACP on 10 April 2025.

The NIS Addendum concludes it is the opinion of RPS that in view of best scientific knowledge and applying the precautionary principle, and in light of the COs of the relevant European sites, the Project, either individually or in combination with other plans or projects, will not have adverse effect on the integrity of any European site(s), given the implementation of the measures included in the Project.

9 CONCLUSION

This *Planning Report Addendum* provides an update on the land and marine usage planning issues associated with the Project addressing planning items arising from the RFI and changes in the planning context since the lodgement of the application in May 2024. This *Planning Report Addendum* clearly demonstrates that the Project continues to comply with all relevant statutory plans, guidelines, policies and objectives at local, regional, national and EU levels.

The Applicant has engaged with key stakeholders as required by the RFI and the RFI response is cognisant of and responds to the matters they have raised as further detailed in the enclosed documentation responding to specific RFI items.

A review of recent planning applications, decisions, and appeals has shown there to be no potential for impact on the Applicant's capacity to construct the Project. Likewise, the proposed development as modified by this RFI response does not in any way hinder the construction of proximate permitted development or proposed development currently before LCC or ACP.

The *EIAR Addendum* assesses all items arising from the RFI request and has identified that no additional significant negative effects arise from the Project.

The enclosed *NIS Addendum* concludes that there will be no adverse or residual effects on the integrity of any European sites with no reasonable scientific doubt.

Having regard to the above, it is considered that the Project continues to comprise proper planning and sustainable development. Having regard to this *Planning Report Addendum* and the plans and particulars provided as part of this response to the RFI issued by ACP 10 April 2025 and all enclosures included within the RFI response pack, it is respectfully requested that planning permission for development be granted for this marine development Project.

Appendix A Addendum: National Marine Planning Framework (NMPF) Compliance Report

ORIEL OFFSHORE WIND FARM PROJECT

Planning Report – Addendum

Appendix A Addendum: National Marine Planning Framework (NMPF) – Compliance Report

MDR1520C
Planning Report – Appendix A
A1 C01
December 2025

Contents

Tables

Figures

1 INTRODUCTION

This report provides supplementary information to the National Marine Planning Framework (NMPF) – Compliance Report (included as Appendix A to the Planning Report (2024)). The NMPF Compliance Report outlines the overarching marine planning policies and provides a description of how the Oriel Wind Farm Project (hereafter referred to as the Project) will comply with each policy and / or a reference to where the policy is addressed in the Environmental Impact Assessment Report (EIAR) (volumes 2A, 2B and 2C) and / or the Planning Report.

This Addendum to the NMPF Compliance Report forms part of the Applicant's response to a Request for Further Information (RFI) detailed by ACP in their correspondence dated 10 April 2025. Specifically, this report was prepared to provide a response to RFI 3 in the 'Schedule – Further Information Request'.

Table 1A-1 outlines the specific information requested according to the referencing used in the 'Schedule – Further Information Request' provided by ACP. Table 1A-1 also indicates where the corresponding information / responses can be found within this Addendum and provides a concluding statement on any resulting updates or changes to the original version presented in the EIAR (2024).

Table 1A-2 outlines the overarching marine planning policies and provides a description of how the Project will comply with each policy and / or a reference to where the policy is addressed in the Environmental Impact Assessment Report (EIAR) (volumes 2A, 2B and 2C) and / or the Planning Report. This table has been updated to review the Project compliance in light of the further information that has been prepared in response to the RFI.

Table 1A-3 outlines the sectoral marine planning policies for energy-offshore renewable policies and other sectors (where relevant) and provides a description of how the Project will comply with each policy and / or provides a reference to where the policy is addressed in the EIAR (volumes 2A, 2B and 2C) and / or the Planning Report. This table has been updated to review the Project compliance in light of the further information that has been prepared in response to the RFI.

The section and subsection headings in this Addendum correspond to those used in the NMPF Compliance Report, however a new section 2 has been added to respond to RFI 3.

An Ecosystem Functions and Services Assessment Report is included in Annex 1. It provides an assessment of the ecosystems linked to the Project.

Table 1A-1: Further information requested on NMPF policies (habitats and noise) and details on Applicant's response.

Reference	Request for Further Information	Response / Reference where information is presented	Concluding statement
3	The Board notes the information contained in Appendix A: National Marine Planning Framework (NMPF) – Compliance Report of the Planning Report submitted with the application, and Section 2.5.1 of the EIAR, which sets out how the project meets the requirements of the NMPF. The Board also notes the March 2024 Commission Notice on the threshold values set under the Marine Strategy Framework Directive 2008/56/EC and Commission Decision (EU) 2017/848, in particular the four thresholds established for habitat loss (D6C4), adverse effects on habitats (D6C5), impulsive noise (D11C1) and continuous noise (D11C2) Continuous noise listed in the Annex to this Commission Notice. The Board considers the use of these thresholds would assist in achieving consistency in the presentation of the results across the Irish Sea Phase 1 ORE projects, and would facilitate the assessment of the relevant NMPF policies based on EU agreed indicators and thresholds. The applicant is therefore requested to:	-	-
3.A	A. model, map and present the area and temporal extent of the potential impact of the proposed development for the full construction and operation campaign on the following indicators: i) the potential spatial extent of habitat lost (D6C4), ii) the potential spatial extent of habitat adversely effected (D6C5), iii) the modelled impulsive noise (D11C1) with and without abatement, and iv) the modelled continuous noise (D11C2)	Details are provided in section 2: i) the potential spatial extent of habitat lost (D6C4) in Figure 2A-1. ii) the potential spatial extent of habitat adversely effected (D6C5) in Figure 2A-1. iii) the modelled impulsive noise (D11C1) with and without abatement (see Figure 2A-2 to Figure 2A-3). iv) the modelled continuous noise (D11C2) (see Figure 2A-4).	**-**
3.B	B. assess the results obtained for potential habitat loss and habitat adversely affected in A above against the 2% thresholds established for habitat loss (D6C4) and the 25% threshold for adverse effects on habitats (D6C5) for the MSFD Celtic Seas North Inner Marine Reporting Unit, as detailed in Ireland's Draft Marine Strategy Part 1 Article 8, 9 and 10 report 2024 including its annexes, published in July 2024.	The potential maximum spatial extent of habitat lost **(D6C4)** or habitat adversely affected **(D6C5)** is 52,699,000 m^2 (i.e. long term habitat loss) under the precautionary scenario, which equates to 0.08% of the MSFD Celtic Seas North Inner Marine Reporting Unit. (Refer to Section 2.1 and 2.2 for more details) None of the habitats are categorised as 'important' habitats as per the NMPF.	Both habitat loss and habitat effects arising from the Project come under the 2% and 25% thresholds respectively. All habitats within the Project boundaries are not considered 'important' as per the NMPF.

Reference	Request for Further Information	Response / Reference where information is presented	Concluding statement
3.C	C. assess the results obtained from modelled impulsive (with and without abatement) and continuous noise in A above against the relevant thresholds values for impulsive and continuous noise set out in the above referenced Commission Notice.	The proportion of the assessment area (i.e. the species-specific MU) utilised by a species of interest that is exposed to impulsive noise levels higher than the LOBE (160 dB re 1 µPa (rms)) is less than 1% and therefore well below the short-term (daily) 20% guidance threshold for impulsive noise. Similarly, the maximum proportion of a target species habitat (i.e. a designated SAC) exposed to higher than the LOBE (120 dB re 1 µPa (rms)) is zero, and thus well below the 10% monthly guidance threshold for continuous noise. Further details are provided in sections 2.3 and 2.4 below.	Both exposure to impulsive and continuous noise are well below the 20% and 10% thresholds respectively.
3.D	D. incorporate the output from A, B & C above, and all other relevant updates made as a result of this FI, into a revised assessment of the NMPF policies, particularly Biodiversity Policy 2, Seafloor Integrity Policies 1, 2 and 3, Fisheries Policy 5 and Underwater Noise Policy 1. This revised assessment should fully account for the distinction the NMPF places on 'important' species and habitats as defined on page 35 and 36 of the NMPF.	Please see the below sections of Table 1A-2 and Table 1A-3: • Biodiversity Policy 2 (see Table 1A-2) • Seafloor Integrity Policies 1, 2 and 3 (see Table 1A-2) • Fisheries Policy 5 (see Table 1A-3) • Underwater Noise Policy 1 (see Table 1A-2)	As discussed in response to RFI 3.B, habitat loss and effects to habitats are under the thresholds of 2% and 25% respectively therefore no significant effects are expected to habitats listed as 'important' in the NMPF. Please see sections 2.1 and 2.2 below for further details. Similarly, the proportion of an 'important' listed species habitat that is exposed to the LOBE for impulsive noise and continuous noise is assessed to be under the 20% and 10% guidance thresholds respectively, therefore no significant effects are expected to species listed as 'important' in the NMPF. Please see sections 2.3 and 2.4 below for further details.

Reference	Request for Further Information	Response / Reference where information is presented	Concluding statement
	The spatial extent of the modelled potential habitat loss, habitat adversely effected and impulsive and continuous noise should be provided in GIS format, see Technical NOTE Appendix A.	The modelling and mapping requested is presented in section 2 below, as well as provided separately as a geopackage/shapefiles.	N/A

1.1 Overarching marine policies

Table 1A-2: Project consistency with National Marine Planning Framework overarching marine policies.

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
Environmental – Ocean Health		
Environmental – Ocean Health Policy 1 *Compliance with NMPF policies relating to:* *Biodiversity* *Non-Indigenous Species* *Water Quality* *Sea-floor and Water Column Integrity* *Marine Litter* *Underwater Noise* *should include demonstration of contribution to the relevant MSFD targets identified.*	The Project will align with this policy as outlined in each of the individual topic policies noted below. Regarding the Project's contribution to the MSFD targets, please refer to chapter 7: Marine Processes (volume 2B). The Project will not cause a deterioration in water body status or prevent the achievement of the environmental objectives of the water bodies affected as outlined in appendix 7-2: Water Framework Directive (WFD) Assessment (volume 2B).	The following chapter has been updated in response to the RFI: • Chapter 7 Addendum: Marine Processes (EIAR volume 2B Addendum) The updates do not amend the Project compliance with this policy.
Biodiversity Policy 1 *Proposals incorporating features that enhance or facilitate species adaptation or migration, or natural native habitat connectivity will be supported, subject to the outcome of statutory environmental assessment processes and subsequent decision by the competent authority, and where they contribute to the policies and objectives of this NMPF. Proposals that may have significant adverse impacts on species adaptation or migration, or on natural native habitat connectivity must demonstrate that they will, in order of preference and in accordance with legal requirements:* *a) avoid,* *b) minimise, or* *c) mitigate* *significant adverse impacts on species adaptation or migration, or on natural native habitat connectivity.*	The Project will align with this policy by avoiding, minimising and mitigating significant adverse impacts on species migration and access to key habitats as set out in: • Chapter 8: Benthic, subtidal and intertidal ecology (volume 2B); • Chapter 9: Fish and Shellfish Ecology (volume 2B); • Chapter 10: Marine Mammals and Megafauna (volume 2B); • Chapter 11: Offshore Ornithology (volume 2B); and • Chapter 19: Onshore Biodiversity (volume 2C). The accordance of the Project with this policy is also summarised in section 7 of the Planning Report.	The following chapters have been updated in response to the RFI: • Chapter 8 Addendum: Benthic Subtidal and Intertidal Ecology (EIAR volume 2B Addendum); • Chapter 9 Addendum: Fish and Shellfish Ecology (EIAR volume 2B Addendum); • Chapter 10 Addendum: Marine Mammals and Megafauna (EIAR volume 2B Addendum); • Chapter 11 Addendum: Offshore Ornithology (EIAR volume 2B Addendum); and • Chapter 19 Addendum: Onshore Biodiversity (EIAR volume 2C Addendum). The updates do not amend the Project compliance with this policy.
Biodiversity Policy 2 *Proposals that protect, maintain, restore and enhance the distribution and net extent of important habitats and distribution of important species will be supported, subject to the outcome of statutory environmental assessment processes and subsequent decision by the*	The Project will align with this policy by avoiding significant reduction in habitats and minimising disturbance or displacement of habitats as set out in: • Chapter 8: Benthic, Subtidal and Intertidal Ecology (EIAR and EIAR Addendum);	Please see Section 2 below. The following chapters have been updated in response to the RFI:

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
competent authority, and where they contribute to the policies and objectives of this NMPF. Proposals must avoid significant reduction in the distribution and net extent of important habitats and other habitats that important species depend on, including avoidance of activity that may result in disturbance or displacement of habitats.	• Chapter 9: Fish and Shellfish Ecology (EIAR and EIAR Addendum); • Chapter 10: Marine Mammals and Megafauna (EIAR and EIAR Addendum); • Chapter 11: Offshore Ornithology (EIAR and EIAR Addendum); and • Chapter 19: Onshore Biodiversity (EIAR and EIAR Addendum).	• Chapter 8 Addendum: Benthic, Subtidal and Intertidal ecology (EIAR volume 2B Addendum); • Chapter 9 Addendum: Fish and Shellfish Ecology (EIAR volume 2B Addendum); • Chapter 10 Addendum: Marine Mammals and Megafauna (EIAR volume 2B Addendum); • Chapter 11 Addendum: Offshore Ornithology (EIAR volume 2B Addendum); and • Chapter 19 Addendum: Onshore Biodiversity (EIAR volume 2C Addendum). The updates do not amend the Project compliance with this policy.
Biodiversity Policy 3 *Where marine or coastal natural capital assets are recognised by Government:* • *Proposals must seek to enhance marine or coastal natural capital assets where possible.* • *Proposals must demonstrate that they will in order of preference, and in accordance with legal requirements:* *a) avoid,* *b) minimise, or* *c) mitigate* *significant adverse impacts on marine or coastal natural capital assets, or* *d) if it is not possible to mitigate significant adverse impacts on marine or coastal natural capital assets proposals must set out the reasons for proceeding.*	The Project will align with this policy by avoiding significant adverse impacts on marine or coastal natural capital assets as set out in: • Chapter 8: Benthic, Subtidal and Intertidal Ecology; • Chapter 9: Fish and Shellfish Ecology; • Chapter 10: Marine Mammals and Megafauna; and • Chapter 11: Offshore Ornithology.	The following chapters have been updated in response to the RFI: • Chapter 8 Addendum: Benthic Subtidal and Intertidal Ecology (EIAR volume 2B Addendum); • Chapter 9 Addendum: Fish and Shellfish Ecology (EIAR volume 2B Addendum); • Chapter 10 Addendum: Marine Mammals and Megafauna (EIAR volume 2B Addendum); and • Chapter 11 Addendum: Offshore Ornithology (EIAR volume 2B Addendum). The updates do not amend the Project compliance with this policy.
Biodiversity Policy 4 *Proposals must demonstrate that they will, in order of preference and in accordance with legal requirements:* *a) avoid,* *b) minimise, or* *c) mitigate* *significant disturbance to, or displacement of, highly mobile species.*	The Project will align with this policy by avoiding significant disturbance to, or displacement of, highly mobile species as set out in: • Chapter 9: Fish and Shellfish Ecology; • Chapter 10: Marine Mammals and Megafauna; and • Chapter 11: Offshore Ornithology; and • Chapter 19: Onshore Biodiversity.	The following chapters have been updated in response to the RFI: • Chapter 9 Addendum: Fish and Shellfish Ecology (EIAR volume 2B Addendum); • Chapter 10 Addendum: Marine Mammals and Megafauna (EIAR volume 2B Addendum); • Chapter 11 Addendum: Offshore Ornithology (EIAR volume 2B Addendum); and

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
		• Chapter 19 Addendum: Onshore Biodiversity (EIAR volume 2C) The updates do not amend the Project compliance with this policy.
Protected Marine Sites Policy 1 *Proposals must demonstrate that they can be implemented without adverse effects on the integrity of Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). Where adverse effects from proposals remain following mitigation, in line with Habitats Directive Article 6(3), consent for the proposals cannot be granted unless the prerequisites set by Article 6(4) are met.*	The Project aligns with this policy. A Natura Impact Statement (NIS) has been prepared for the Project and accompanies the application. The NIS concludes that the Project will not result in adverse effects on the integrity of any SAC or SPA with the implementation of mitigation measures. The accordance of the Project with this policy is also summarised in section 7 of the Planning Report.	In response to the RFI, updates have been made to the NIS Addendum. The updates do not amend the Project compliance with this policy.
Protected Marine Sites Policy 2 *Proposals supporting the objectives of protected marine sites should be supported and:* • *be informed by appropriate guidance.* • *must demonstrate that they are in accordance with legal requirements, including statutory advice provided by authorities relevant to protected marine sites.*	The Project indirectly supports the objectives of protected marine sites by reducing greenhouse gas emissions and impacts from climate change.	No change to project compliance with this policy.
Protected Marine Sites Policy 3 *Proposals that enhance a protected marine site's ability to adapt to climate change, enhancing the resilience of the protected site, should be supported and:* *be informed by appropriate guidance.* *must demonstrate that they are in accordance with legal requirements, including statutory advice provided by authorities relevant to protected marine sites.*		
Protected Marine Sites Policy 4 *Until the ecological coherence of the network of protected marine sites is examined and understood, proposals should identify, by review of best available evidence (including consultation with the competent authority with responsibility for designating such areas as required), the features, under consideration at the time the application is made, that may be required to develop and further establish the network. Based upon identified features that may be required to develop and*	The Project aligns with this policy by avoiding where possible adverse effects on habitats and species of designated sites (i.e. European sites and other sites designated for nature conservation e.g. National sites, nature reserves etc.) as set out in: • Chapter 8: Benthic Subtidal and Intertidal Ecology; • Chapter 9: Fish and Shellfish Ecology; • Chapter 10: Marine Mammals and Megafauna;	The following chapters have been updated in response to the RFI: • Chapter 8 Addendum: Benthic Subtidal and Intertidal Ecology (EIAR volume 2A Addendum); • Chapter 9 Addendum: Fish and Shellfish Ecology (EIAR volume 2A Addendum); • Chapter 10 Addendum: Marine Mammals and Megafauna (EIAR volume 2A Addendum);

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
further establish the network, proposals should demonstrate that they will, in order of preference, and in accordance with legal requirements: *a) avoid,* *b) minimise, or* *c) mitigate* *significant impacts on features that may be required to develop and further establish the network, or* *d) if it is not possible to mitigate significant impacts, proposals should set out the reasons for proceeding.*	• Chapter 11: Offshore Ornithology; • Chapter 19: Onshore Biodiversity; and • The Natura Impact Statement (NIS). These chapters and the NIS were prepared using best available scientific evidence, and outline measures to minimise and mitigate potential effects on designated and European sites, where required. Details on consultation are also provided within these chapters and within the NIS. The above listed EIAR chapters conclude that the Project (with the implementation of mitigation measures) will not result in significant adverse effects on sensitive habitats and species. The NIS concludes that the Project (with the implementation of mitigation measures) will not result in adverse effects on the integrity of any SAC or SPA.	• Chapter 11 Addendum: Offshore Ornithology (EIAR volume 2B Addendum); and • Chapter 19 Addendum: Onshore Biodiversity (EIAR volume 2C) The updates do not amend the Project compliance with this policy.
Non-Indigenous Species Policy 1 *Reducing the risk of the introduction and / or spread of non-indigenous species is a requirement of all proposals. Proposals must demonstrate a risk management approach to prevent the introduction of and / or spread of non-indigenous species, particularly when:* *a) moving equipment, boats or livestock (for example fish or shellfish) from one water body to another,* *b) introducing structures suitable for settlement of non-indigenous species, or the spread of non-indigenous species known to exist in the area of the proposal.*	The Project aligns with this policy. The Project includes measures to reduce the risk of the introduction and / or spread of non-indigenous species. These include a Marine Invasive Non-Native Species Management Plan (see appendix 5-3, EIAR volume 2A); and an Environmental Management Plan (appendix 5-2, EIAR volume 2A). These documents describe the methods at which the Project will reduce the risk of the introduction and / or spread of non- native species.	In response to the RFI, updates have been made to the Environmental Management Plan (appendix 5-2 Addendum, EIAR volume 2A Addendum). The updates do not amend the Project compliance with this policy.
Water Quality Policy 1 *Proposals that may have significant adverse impacts upon water quality, including upon habitats and species beneficial to water quality, must demonstrate that they will, in order of preference and in accordance with legal requirements:* *a) avoid,* *b) minimise, or* *c) mitigate* *significant adverse impacts.*	The Project will align with this policy by avoiding significant adverse impacts on water quality including upon habitats and species beneficial to water quality as set out in: • Chapter 7: Marine Processes; • Chapter 8: Benthic, Subtidal and Intertidal Ecology; • Chapter 9: Fish and Shellfish Ecology; • Chapter 10: Marine Mammals and Megafauna; and • Chapter 11: Offshore Ornithology.	The following chapters have been updated in response to the RFI: • Chapter 7 Addendum: Marine Processes (EIAR volume 2B Addendum); • Chapter 8 Addendum: Benthic Subtidal and Intertidal Ecology (EIAR volume 2B Addendum); • Chapter 9 Addendum: Fish and Shellfish Ecology (EIAR volume 2B Addendum); • Chapter 10 Addendum: Marine Mammals and Megafauna (EIAR volume 2B Addendum);

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
	The Project will not cause a deterioration in water body status or prevent the achievement of the environmental objectives of the water bodies affected as outlined in appendix 7-2: WFD Assessment. An Environmental Management Plan (appendix 5-2); a Marine Pollution Contingency Plan (annex 2 of appendix 5-2) and an Emergency Response Co-operation Plan (appendix 5-7) has been prepared for the Project and accompanies the application. These documents describe the methods at which the Project aims to avoid, minimise and mitigate significant adverse impacts on water quality through pollution response plans and other means.	• Chapter 11 Addendum: Offshore Ornithology (EIAR volume 2B Addendum); and • Chapter 19 Addendum: Onshore Biodiversity (EIAR volume 2C). The updates do not amend the Project compliance with this policy. In response to the RFI, updates have also been made to the Environmental Management Plan (appendix 5-2 Addendum, EIAR volume 2A Addendum) and Annex 2 Addendum: Marine Pollution Contingency Plan.
Water Quality Policy 2 *Proposals delivering improvements to water quality, or enhancing habitats and species, which can be of benefit to water quality, should be supported.*	It is considered that this policy is not applicable to the subject Project as it will not deliver improvements to water quality or enhance habitats and species which can be of benefit to water quality. However, it should be noted that the Project will not result in significant adverse effects on water quality as outlined in chapter 7: Marine Processes and chapter 22: Hydrology and Flood Risk.	The following chapters have been updated in response to the RFI: • Chapter 7 Addendum: Marine Processes (EIAR volume 2B Addendum). The updates do not amend the Project compliance with this policy.
Sea-floor and Water Column Integrity Policy 1 *Proposals that incorporate measures to support the resilience of marine habitats will be supported, subject to the outcome of statutory environmental assessment processes and subsequent decision by the competent authority and where they contribute to the policies and objectives of this NMPF. Proposals which may have significant adverse impacts on marine, particularly deep sea, habitats must demonstrate that they will, in order of preference and in accordance with legal requirements:* *a) avoid,* *b) minimise, or* *c) mitigate* *significant adverse impacts on marine habitats, or* *d) if it is not possible to mitigate significant adverse impacts on marine habitats must set out the reasons for proceeding.*	The Project will align with this policy by avoiding significant adverse impacts on marine habitats as set out in: • Chapter 7: Marine Processes; and • Chapter 8: Benthic, Subtidal and Intertidal Ecology.	Please see Section 2 below. The following chapters have been updated in response to the RFI: • Chapter 7 Addendum: Marine Processes (EIAR volume 2B Addendum); • Chapter 8 Addendum: Benthic Subtidal and Intertidal Ecology (EIAR volume 2B Addendum). The updates do not amend the Project compliance with this policy.

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
Sea-floor and Water Column Integrity Policy 2 *Proposals, including those that increase access to the maritime area, must demonstrate that they will, in order of preference and in accordance with legal requirements:* *a) avoid,* *b) minimise, or* *c) mitigate* *adverse impacts on important habitats and species.*	The Project will align with this policy by avoiding significant adverse impacts on important habitats and species as set out in: • Chapter 7: Marine Processes; • Chapter 8: Benthic, Subtidal and Intertidal Ecology; • Chapter 9: Fish and Shellfish Ecology; • Chapter 10: Marine Mammals and Megafauna; and • Chapter 11: Offshore Ornithology.	Please see section 2 below. The following chapters have been updated in response to the RFI • Chapter 7 Addendum: Marine Processes and Water Quality (EIAR volume 2B Addendum). • Chapter 8 Addendum: Benthic Subtidal and Intertidal Ecology (EIAR volume 2B Addendum); • Chapter 9 Addendum: Fish and Shellfish Ecology (EIAR volume 2B Addendum); • Chapter 10 Addendum: Marine Mammals and Megafauna (EIAR volume 2B Addendum); and • Chapter 11 Addendum: Offshore Ornithology (EIAR volume 2B Addendum). The updates do not amend the Project compliance with this policy.
Sea-floor and Water Column Integrity Policy 3 *Proposals that protect, maintain, restore and enhance coastal habitats for ecosystem functioning and provision of ecosystem services will be supported, subject to the outcome of statutory environmental assessment processes and subsequent decision by the competent authority, and where they contribute to the policies and objectives of this NMPF. Proposals must take account of the space required for coastal habitats, for ecosystem functioning and provision of ecosystem services, and demonstrate that they will, in order of preference and in accordance with legal requirements:* *a) avoid,* *b) minimise , or* *c) mitigate* *for net loss of coastal habitat.*	The Project will align with this policy by avoiding significant adverse impacts on coastal habitat as set out in: • Chapter 7: Marine Processes; • Chapter 8: Benthic, Subtidal and Intertidal Ecology; • Chapter 21: Soils, Geology and Hydrogeology (including appendix 21-1: Coastal Erosion Assessment Report)	Please see section 2 below. The following chapters have been updated in response to the RFI • Chapter 7 Addendum: Marine Processes and Water Quality (EIAR volume 2B Addendum): • Chapter 8 Addendum: Benthic Subtidal and Intertidal Ecology (EIAR volume 2B Addendum); • Chapter 21 Addendum: Soils, Geology and Hydrogeology (including appendix 21-1: Coastal Erosion Assessment Report)(EIAR volume 2C Addendum) An Ecosystems Services and Function Report has also been prepared and is included as Annex 1 of this report. The updates do not amend the Project compliance with this policy.
Marine Litter Policy 1 *Proposals that facilitate waste re-use or recycling, or that reduce marine and coastal litter will be supported, where they contribute to the policies and objectives of*	The Project will align with this policy by minimising litter in the maritime area through implementation of an EMP (appendix 5-2 in EIAR volume 2A). The EMP includes	In response to the RFI, updates have been made to the Environmental Management Plan (appendix 5-2 Addendum, EIAR volume 2A Addendum).

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
this NMPF. Proposals that could potentially increase the amount of litter that is discharged into the maritime area, either intentionally or accidentally, must include measures (such as development of a waste management plan) to, in order of preference and in accordance with legal requirements: *a) avoid,* *b) minimise, or* *c) mitigate* *the litter. Demonstration of these measures must provide satisfactory evidence that the proposal is able to manage all waste without creation of litter.*	measures to manage all waste without the creation of litter.	The updates do not amend the Project compliance with this policy.
Underwater Noise Policy 1 *Proposals must take account of spatial distribution, temporal extent, and levels of impulsive and / or continuous sound (underwater noise) that may be generated and the potential for significant adverse impacts on marine fauna.* *Where the potential for significant impact on marine fauna from underwater noise is identified, a Noise Assessment Statement must be prepared by the proposer of development. The findings of the Noise Assessment Statement should demonstrably inform determination(s) related to the activity proposed and the carrying out of the activity itself.* *The content of the Noise Assessment Statement should be relevant to the particular circumstances and must include:* • *Demonstration of compliance with applicable legal requirements, such as necessary assessment of proposals likely to have underwater noise implications, including but not limited to:* – *Appropriate Assessment (AA);* – *Environmental Impact Assessment (EIA);* – *Strategic Environmental Assessment (SEA);* – *Specific response to 'strict protection' requirements of Article 12 of the Habitats Directive in relation to certain species listed in Annex IV of the Directive; and* – *Species protected under the Wildlife Acts.*	The Project will align with this policy by avoiding significant adverse impacts from underwater noise on marine mammals as set out in: • Chapter 10: Marine Mammals and Megafauna. An assessment of the potential effects of underwater noise (i.e. noise assessment statement) during the construction, operational and maintenance and decommissioning phases of the Project have been undertaken and is outlined in chapter 10: Marine Mammals and Megafauna (EIAR volume 2B). The measures included in the Project to prevent and reduce noise impacts are discussed in this chapter. Measures include implementation of a Marine Megafauna Mitigation Plan (MMMP) (see appendix 5-4 in volume 2A) and use of soft starts following NPWS (2014) guidelines and ADD (Acoustic Deterrent Device) is also proposed as mitigation.	Please see section 2 below. The following chapters have been updated in response to the RFI: • Chapter 10 Addendum: Marine Mammals and Megafauna (EIAR volume 2B Addendum) • Appendix 5-4 Addendum: Marine Megafauna Mitigation Plan (EIAR volume 2A Addendum). The updates do not amend the Project compliance with this policy.

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
• *An assessment of the potential impact of the development or use on the affected species in terms of environmental sustainability;* • *Demonstration that significant adverse impacts on marine fauna resulting from underwater noise will, in order of preference and in accordance with legal requirements be:* *a) avoided,* *b) minimised, or* *c) mitigated, or* *d) if it is not possible to mitigate significant adverse impacts on marine fauna, the reasons for proceeding must be set out.* *This policy should be included as part of statutory environmental assessments where such assessments require consideration of underwater noise.*		
Air Quality Policy 1 *Proposals that support a reduction in air pollution should be supported, subject to the outcome of statutory environmental assessment processes and subsequent decision by the competent authority, and where they contribute to the policies and objectives of this NMPF. Proposals must demonstrate consideration of their contribution to air pollution, both direct and cumulative.*	The effect of the Project on air pollution is considered in chapter 23: Air Quality (volume 2C). The Project avoids significant adverse effects on air quality and indirectly results in beneficial impacts on air quality by offsetting fossil fuel generation with renewable energy (see chapter 17: Climate (volume 2C).	The following chapters have been updated in response to the RFI: • Chapter 17 Addendum: Climate (EIAR volume 2C Addendum); The updates do not amend the Project compliance with this policy.
Air Quality Policy 2 *Where proposals are likely to result in or facilitate an increase in air pollution, proposals should demonstrate that they will, in order of preference in accordance with legal requirements and standards:* *e) avoid,* *f) minimise, or* *g) mitigate* *air pollution.*	The Project avoids significant adverse effects on air quality as outlined in chapter 23: Air Quality (volume 2C)	No change to project compliance with this policy.
Climate Change Policy 1 *Proposals should demonstrate how they:*	Project aligns with this policy as works will avoid adverse changes to physical features of the coast as outlined in • Chapter 7: Marine Processes (volume 2B); and	The following chapters have been updated in response to the RFI:

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
• *avoid contribution to adverse changes to physical features of the coast;* • *enhance, restore or recreate habitats that provide a flood defence or carbon sequestration ecosystem services where possible.* *Where potential significant adverse impacts upon habitats that provide a flood defence or carbon sequestration ecosystem services are identified, these must be in order of preference and in accordance with legal requirements:* *a) avoided,* *b) minimised,* *c) mitigated,* *d) if it is not possible to mitigate significant adverse impacts, the reasons for proceeding must be set out.* *This policy should be included as part of statutory environmental assessments where such assessments are required.*	• Chapter 21: Soil, Geology and Hydrogeology (including appendix 21- 1: Coastal Erosion Assessment Report) (volume 2C).	• Chapter 7 Addendum: Marine Processes (EIAR volume 2B Addendum); and • Chapter 21 Addendum: Soil, Geology and Hydrogeology (including appendix 21- 1 Addendum: Coastal Erosion Assessment Report) (EIAR volume 2C Addendum). The updates do not amend the Project compliance with this policy.
Climate Change Policy 2 *For the lifetime of the proposal, the following climate change matters must be demonstrated:* • *estimation of likely generation of greenhouse gas emissions, both direct and indirect;* • *measures to support reductions in greenhouse gas emissions where possible;* • *likely impact of climate change effects upon the proposal from factors including but not limited to: sea level rise, ocean acidification, changing weather patterns;* • *measures incorporated to enable adaptation climate change effects;* • *likely impact upon climate change adaptation measures adopted in the coastal area relevant to the proposal and/or adaptation measures adopted by adjacent activities;* *where likely impact upon climate change adaptation measures in the coastal area relevant to the proposal*	The Project aligns with this policy as outlined in • Chapter 17: Climate (volume 2C). In this chapter an estimate of generation of direct and indirect GHG emissions is provided along with measures to reduce emissions during construction. The likely impact of climate change effects on the Project are examined in chapter 24: Major Accident and Natural Disasters (EIAR volume 2C). The accordance of the Project with this policy is also summarised in section 7 of the Planning Report.	The following chapters have been updated in response to the RFI: • Chapter 17 Addendum: Climate (EIAR volume 2C Addendum); and • Chapter 24 Addendum: Risk of Major Accident and Natural Disasters (EIAR volume 2C Addendum). And • Planning Report Addendum The updates do not amend the Project compliance with this policy.

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
and/or adaptation measures adopted by adjacent activities is identified, these impacts must be in order of preference and in accordance with legal requirements: *a) avoided,* *b) minimised,* *c) mitigated,* *d) if it is not possible to mitigate significant adverse impacts, the reasons for proceeding must be set out.*		
Economic – Thriving Maritime Economy		
Co-existence Policy 1 *Proposals should demonstrate that they have considered how to optimise the use of space, including through consideration of opportunities for co-existence and co-operation with other activities, enhancing other activities where appropriate.* *If proposals cannot avoid significant adverse impacts (including displacement) on other activities they must, in order of preference:* *a) minimise significant adverse impacts,* *b) mitigate significant adverse impacts, or* *c) if it is not possible to mitigate significant adverse impacts, proposals should set out the reasons for proceeding.*	It is demonstrated how the Project will coexist and co-operate both spatially and temporally with other marine interests and activities in the assessments presented in volume 2B (see chapter 13: Shipping and Navigation; chapter 12: Commercial Fisheries) Consultation with stakeholders who have interests in the marine are outlined in chapter 6 in volume 2A. The development of Project in the marine environment has been kept to a minimum footprint as outlined in chapter 4: Consideration of Alternatives (volume 2A). The accordance of the Project with this policy is also summarised in section 7 of the Planning Report.	The following chapters have been updated in response to the RFI: • Chapter 12 Addendum: Commercial Fisheries (EIAR volume 2B Addendum); and • Chapter 13 Addendum: Shipping and Navigation (EIAR volume 2B Addendum) And • Planning Report Addendum. The Applicant is committed to coexistence with the fishing industry. The co-existence policy states that where impacts cannot be avoided, activities must be minimised and mitigated as far as possible. In accordance with the FMMS presented in appendix 5-6 (EIAR volume 2A), minimum safety zones will be established surrounding each turbine. The Applicant does not propose exclusion from the project site during operation. In addition, appropriate notice to mariners and relevant charts will be updated should the application receive consent. The updates do not amend the Project compliance with this policy.
Infrastructure Policy 1 *Appropriate land-based infrastructure which facilitates marine activity (and vice versa) should be supported. Proposals for appropriate infrastructure that facilitates*	The Project requires both onshore and offshore infrastructure. The Project will make landfall 700 m south of Dunany Point. The land-based infrastructure is i.e. the onshore cable will facilitate the transfer of energy from the wind farm to the onshore substation.	No change to project compliance with this policy.

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
the diversification or regeneration of marine industries should be supported.	The construction, operational and maintenance and decommissioning phases of the Project will generate activity at ports and diversify marine industry.	
Social – Engagement with the Sea		
Access Policy 1 *Proposals, including in relation to tourism and recreation, should demonstrate that they will, in order of preference:* *a) avoid,* *b) minimise, or* *c) mitigate* *significant adverse impacts on public access.*	The Project will not impact on public access once constructed. During construction of the offshore cable (between the LWM and HWM) and the Transition Joint Bay, there will be access restrictions on areas of the beach at Dunany, which may lead to temporary disruption of public open space. However, these will be temporary (see chapter 18: Population and Human Health (volume 2C). There will also be restrictions on certain recreational activities during construction such as those outlined in chapter 16: Infrastructure, Marine Recreation and Other Users (volume 2B).	No change to project compliance with this policy.
Access Policy 2 *Proposals demonstrating appropriate enhanced and inclusive public access to and within the maritime area, and that consider the future provision of services for tourism and recreation activities, should be supported, subject to the outcome of statutory environmental assessment processes and subsequent decision by the competent authority, and where they contribute to the policies and objectives of this NMPF.*	The Project considers the future provision of tourism and recreational activities in chapter 16: Infrastructure, Marine Recreation and Other Users (volume 2B). The effects are found to range from imperceptible adverse significance to slight adverse significance.	No change to project compliance with this policy.
Employment Policy 1 *Proposals should demonstrate contribution to a net increase in marine related employment in Ireland, particularly where the proposals are:* *in line with the skills available in Irish coastal communities adjacent to the maritime area,* *improve the sustainable use of natural resources,* *diversify skills to enable employment in emerging industries.*	The Project will provide direct and indirect access to employment in the offshore wind energy industry for coastal communities as outlined in chapter 18: Population and Human Health (volume 2C).	No change to project compliance with this policy.
Heritage Assets Policy 1 *Proposals that demonstrate they will contribute to enhancing the significance of heritage assets will be supported, subject to the outcome of statutory environmental assessment processes and subsequent*	The Project infrastructure has been selected to avoid direct impacts on marine heritage assets. An assessment of the Project on marine archaeology is provided in chapter 15: Marine Archaeology (volume 2B).	The following chapters have been updated in response to the RFI: • Chapter 15 Addendum: Marine Archaeology (EIAR volume 2B Addendum); and

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
decision by the competent authority, and where they contribute to the policies and objectives of this NMPF. Proposals unable to contribute to enhancing the significance of heritage assets will only be supported if they demonstrate that they will, in order of preference: *a) avoid,* *b) minimise, or* *c) mitigate* *harm to the significance of heritage assets, and* *d) if it is not possible, to mitigate harm, then the public benefits for proceeding with the proposal must outweigh the harm to the significance of the heritage assets (see definition of 'Public Benefits' in the Glossary).*	An assessment of the Project on the setting of coastal historic features is provided in chapter 26: Cultural Heritage (volume 2C).	• Chapter 26 Addendum: Cultural Heritage (EIAR volume 2C Addendum). The updates do not amend the Project compliance with this policy.
Rural Coastal and Island Communities Policy 1 *Proposals contributing to access, communications, energy self-sufficiency or sustainability of rural coastal and / or island communities should be supported. Proposals should ideally be inclusive of continual education, skills development and training in marine sectors, thus improving the sustainability, social benefits and economic resilience of rural and island communities.*	The Project proposes a workforce management plan as outlined in chapter 18: Population and Human Health (volume 2C).	No change to project compliance with this policy.
Seascape and Landscape Policy 1 *Proposals should demonstrate how the likely significant impacts of a development on the seascape and landscape of an area have been considered. Proposals will only be supported if they demonstrate that they, in order of preference:* *a) avoid,* *b) minimise, or* *c) mitigate* *d) significant adverse impacts on the seascape and landscape of the area.* *e) If it is not possible to mitigate significant adverse impacts, proposals must set out the reasons for proceeding.* *This policy should be included as part of statutory environmental assessments.*	An assessment of the potential impacts of the Project on the seascape and landscape are provided in chapter 27: Seascape, Landscape and Visual Amenity (volume 2C) Chapter 4: Consideration of Alternatives and appendix 4-2: Preliminary Landscape Assessment of Design Options provide information on how the impacts on seascape and landscape from the Project have been minimised through an iterative design process. The accordance of the Project with this policy is also summarised in section 7 of the Planning Report.	The following chapters have been updated in response to the RFI: • Chapter 27 Addendum: Seascape, Landscape and Visual Amenity (EIAR volume 2C Addendum). The updates do not amend the Project compliance with this policy.

NMPF Policies	Project consistency with policy	Review of Project consistency with policy (2025)
Social Benefits Policy 1 *Proposals that enhance or promote social benefits should be supported. Proposals unable to enhance or promote social benefits should demonstrate that they will, in order of preference:* *a) minimise, or* *b) mitigate* *significant adverse impacts which result in the displacement of other existing or authorised (but yet to be implemented) activities that generate social benefits.*	At the construction, operation, maintenance and decommissioning phases the Project will create societal benefits through generating local employment as considered further in chapter 18: Population and Human Health (volume 2C). During construction of the offshore cable (between the LWM and HWM) and the Transition Joint Bay, there will be access restrictions on areas of the beach at Dunany. However, these will be temporary, see chapter 18: Population and Human Health. The Project will minimise the displacement of other existing or authorised activities that generate social benefits such as sailing, recreational fishing, kayaking, kite surfing, surfing and windsurfing, sea swimming and beach users etc. Such effects are considered to be imperceptible adverse - slight adverse as detailed in chapter 16: Infrastructure, Marine Recreation and Other Users (volume 2B).	No change to project compliance with this policy.
Social Benefits Policy 2 *Proposals that increase the understanding and enjoyment of the marine environment (including its natural, historic and social value), or that promote conservation management and increased education and skills, should be supported.*	The Project will promote education and skills through one-off and continuous learning opportunities, (e.g. apprentices) as outlined in chapter 18: Population and Human Health (volume 2C).	No change to project compliance with this policy.
Transboundary Policy 1 *Proposals that have transboundary impacts beyond the maritime area, on either the terrestrial environment or neighbouring international jurisdictions, must show evidence of consultation with the relevant public authorities, including terrestrial planning authorities and other country authorities. Proposals should consider transboundary impacts throughout the lifetime of the proposed activity.*	Details on consultation with neighbouring international jurisdictions is provided in chapter 6: Consultation (volume 2A). The potential for transboundary impacts is assessed in the chapters provided in volume 2B and 2C.	No change to project compliance with this policy.

1.2 Sectoral marine policies

Sectoral marine policies which may be considered relevant to the Project have been included in Table 1A-3.

Table 1A-3: Project consistency with National Marine Planning Framework key sectoral / activity policies.

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
9 Aquaculture		
Aquaculture Policy 1 Proposals for sustainable development of aquaculture that: • *demonstrate use of innovative approaches, and / or* • *contribute to diversification of species being grown in a given locality, particularly proposals applying a multi-trophic approach, and / or* • *enhances resilience to the effects of climate change* should be supported	Pertains only to proposals for development of aquaculture and therefore is not considered further herein.	n/a
Aquaculture Policy 2 *Non-aquaculture proposals in aquaculture production areas must demonstrate consideration of, and compatibility with, aquaculture production. Where compatibility is not possible, proposals must demonstrate that they will, in order of preference:* *a) avoid;* *b) minimise;* *c) mitigate* *significant adverse impacts on aquaculture.* *d) If it is not possible to mitigate significant adverse impacts upon aquaculture, proposals should set out the reasons for proceeding.*	The Project is not located in a licensed aquaculture production area. The Project will not result in significant adverse impacts on aquaculture as outlined in chapter 12: Commercial Fisheries (volume 2B).	The following chapters have been updated in response to the RFI: • Chapter 12 Addendum: Commercial Fisheries (EIAR volume 2B Addendum). The updates do not amend the Project compliance with this policy.
10 Defence and Security		
Defence and Security Policy 1 *Any proposal that has the potential to interfere with the performance by the Defence Forces of their security and non-security related tasks must be subject to consultation with the Defence Organisation.* *This includes potential interference with:* *a) Safety of navigation and access to naval facilities;* *b) Firing, test or exercise areas;* *c) Communication, and surveillance systems;*	The potential to interfere with the performance of defence forces is examined in chapter 14: Aviation, Military and Communications (volume 2B). The Department of Defence has been consulted with in 2019, 2022 and 2023 as detailed in chapter 6: Consultation (volume 2B). The Project is not located in a 'Marine Danger and Restricted Area'.	The following chapters have been updated in response to the RFI: • Chapter 14 Addendum: Aviation, Military and Communications (EIAR volume 2B Addendum). And; • NIS Addendum The updates do not amend the Project compliance with this policy.

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
d) Fishery protection functions. *Proposals should only be supported where, having consulted with the Defence Organisation, they are satisfied that it will not result in unacceptable interference with the performance by the Defence Forces of their security and non-security related tasks.* *Any proposal will be subject to the relevant Environmental Assessments, as set out in the introduction to this NMPF.*	An EIAR and NIS have been prepared in respect of this Project and are enclosed under separate cover.	
12 Energy – Natural Gas Storage		
Natural Gas Storage Policy	Pertains only to proposals for development of gas storage and therefore is not considered further herein.	n/a
13 Energy – Offshore Renewables		
ORE Policy 1 *Proposals that assist the State in meeting the Government's offshore renewable energy targets, including the target of achieving 5GW of capacity in offshore wind by 2030 and proposals that maximise the long-term shift from use of fossil fuels to renewable electricity energy, in line with decarbonisation targets, should be supported. All proposals will be rigorously assessed to ensure compliance with environmental standards and seek to minimise impacts on the marine environment, marine ecology and other maritime users.*	The Project goes some way to directly enabling this policy by providing infrastructure that can generate 0.375 GW of offshore renewable electricity by 2030.	No change to project compliance with this policy.
ORE Policy 2 *Proposals must be consistent with national policy, including the Offshore Renewable Energy Development Plan (OREDP) and its successor. Relevant Projects designated pursuant to the Transition Protocol and those projects that can objectively enable delivery on the Government's 2030 targets will be prioritised for assessment under the new consenting regime. Into the future, areas designated for offshore energy development, under the Designated Marine Area Plan process set out in the Maritime Area Planning Bill, will underpin a plan-led approach to consenting (or development of our marine resources) (Note – see Appendix D on Spatial Designation Process).*	The Project is consistent with ORE Policy 2 and its successor as detailed in the *Planning Report* and can enable the delivery of the Government's 2030 targets. The Project is located within waters ranging from c. 16 m to 30 m at a location identified in the OREDP as having *"Technical Opportunities"* for offshore wind. Furthermore, the relevant ORE policy measures are addressed in the assessment chapters included in volume 2B of the EIAR.	No change to project compliance with this policy.
ORE Policy 3 Any non-ORE proposals that are in or could affect sites held under a permission or that are subject to an ongoing permitting or consenting process for renewable energy generation (wind,	Pertains only to proposals for non-ORE development and therefore is not considered further herein.	n/a

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
wave or tidal should demonstrate that they will in order of preference: a) avoid, b) minimise, c) mitigate adverse impacts, or d) if it is not possible to mitigate significant adverse impacts, proposals should set out the reasons for proceeding. Applicants for non-ORE proposals in or affecting ORE sites should engage ORE developers in consultation during the pre-application processes as appropriate.		
ORE Policy 4 *Decisions on ORE developments should be informed by consideration of space required for other activities of national importance described in the NMPF.*	The Project is located on lands designated in the NMPF for *'marine renewable energy and infrastructure*'. The development of Project in the marine environment has been kept to a minimum footprint as outlined in chapter 4: Consideration of Alternatives (volume 2A). The impact of the Project on commercial fisheries is considered in chapter 12: Commercial Fisheries (volume 2B) and found there will be no significant adverse effects arising from the Project during the construction, operational and maintenance or decommissioning phases. The impact of the Project on shipping and navigation is considered in chapter 13: Shipping and Navigation (volume 2B) and found there are no significant effects on shipping or navigation. The impact of the Project on aviation, military and communications is considered in chapter 14: Aviation, Military and Communications (volume 2B), which concluded there will be no significant effects arising from the Project during the construction, operational and maintenance or decommissioning phases. The impact of the Project on population is considered in chapter 18: Population and Human Health (volume 2C). It is considered that the Project will at all project lifecycle stages generate employment, stimulate activity at port facilities and impact positively on the population. It is concluded that that there are no significant adverse impacts on other activities and the Project allows for the continued co-existence and co-operation with other activities.	The following chapters have been updated in response to the RFI: • Chapter 12 Addendum: Commercial Fisheries (EIAR volume 2B Addendum); • Chapter 13 Addendum: Shipping and Navigation (EIAR Volume 2B Addendum); and • Chapter 14 Addendum: Aviation, Military and Communications (EIAR volume 2B Addendum). The updates do not amend the Project compliance with this policy.

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
ORE Policy 5 *Proposals for activity that may adversely impact ORE test projects by virtue of being within or adjacent to ORE test sites, or between site and landfall of ORE test projects that may adversely impact ORE test site projects, should demonstrate that they will in order of preference: a) avoid, b) minimise, c) mitigate adverse impacts.*	ORE Policy 5 is not applicable to the subject Project.	n/a
ORE Policy 6	Pertains only to proposals for development of wave, tidal, floating wind infrastructure and therefore is not considered further herein.	n/a
ORE Policy 7	Pertains only to proposals for development of ports and therefore is not considered further herein.	n/a
ORE Policy 8 *Proposals for ORE must demonstrate consideration of existing cables passing through or adjacent to areas for development, making sure ability to repair and carry out cable-related remedial work is not significantly compromised. This consideration should be included as part of statutory environmental assessments where such assessments are required.*	The Project will not traverse or impact on any existing cables as outlined in chapter 16: Infrastructure, Marine Recreation and Other Users. As outlined in the Planning Report, the consideration of existing cables has informed the design process as detailed in the EIAR. In addition, the location of the cable has been designed to ensure that it can be easily repaired in so far as that is possible. In addition, it is proposed to connect the project to the national grid via an existing 220 kV overhead line mast which will be decommissioned to allow for the construction of the two new Line Cable Interface Masts (LCIM). The LCIMs will facilitate the connection of the overhead lines to underground cables that will run from the towers into a termination point in the EirGrid GIS building in Compound 1.	No change to project compliance with this policy.
ORE Policy 9 *A permission for ORE must be informed by inclusion of a visualisation assessment that supports conditions on any development in relation to design and layout. Where a development consent is applied for in an area already subject to permission, proposals must include a visualisation assessment to inform design and layout. Visualisation assessments should demonstrate consultation with communities that may be able to view the proposal, in addition to any other ORE development, which had received consent to proceed at a given site at the time the consent application is made, with the aim of minimising impact. Visualisation assessments will be informed by specific emerging guidelines (detailed in the actions set out in Annexes*	Photomontages of the Project are provided in EIAR appendix 27-1: Seascape, Landscape and Visual Amenity – Supporting Graphics. Consultation with communities was undertaken as outlined in chapter 6: Consultation and appendix 6-1: Public and Other Stakeholders Consultation Report. No other ORE development has received consent at the time of consent application. However, a photomontage showing a proposed ORE to the south is provided in appendix 27-1: Seascape, Landscape and Visual Amenity – Supporting Graphics.	The following chapters have been updated in response to the RFI: • Chapter 27 Addendum: Seascape, Landscape and Visual Amenity (EIAR volume 2C Addendum); and • Appendix 27-1 Addendum: Seascape, Landscape and Visual Amenity – Supporting Graphics (EIAR Volume 2C Addendum). The updates do not amend the Project compliance with this policy.

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
to this NMPF). Prior to specific guidelines being available, policy and best practice relating to visualisation assessment should be used. This consideration must be included as part of statutory environmental assessments where such assessment is required.		
ORE Policy 10 *Opportunities for land-based, coastal infrastructure that is critical to and supports development of ORE should be prioritised in plans and policies, where possible.*	ORE Policy 10 is not applicable to the Project.	n/a
ORE Policy 11 *Where appropriate, proposals that enable the provision of emerging renewable energy technologies and associated supply chains will be supported.*	The technology that is to be used in the Project is of the most advanced and efficient design. Further detail is provided in chapter 5: Project Description (volume 2A).	The following chapters have been updated in response to the RFI: • Chapter 5 Addendum: Project Description (EIAR volume 2A Addendum). The updates do not amend the Project compliance with this policy.
14 Energy – Petroleum		
Petroleum Policy 1 *Proposals in areas where petroleum activities or petroleum production infrastructure have already been approved, or where applications consistent with the Government's prohibition on new exploration activity are under consideration, should only be authorised where compatibility with the existing, authorised or proposed activity can be satisfactorily demonstrated or the proposal is clearly of strategic or national importance.* *Compatibility should be achieved, in order of preference, through:* *a) avoiding, or* *b) minimising, or* *c) mitigating* *adverse impacts.* *d) If it is not possible to mitigate significant adverse impacts, proposals should set out the reasons for proceeding*	The Project is not in close proximity to any existing petroleum authorisations as outlined in c (volume 2B).	No change to project compliance with this policy.
Petroleum Policy 2 *Proposals potentially affecting future potential activity in areas (blocks) subject to existing petroleum authorisations should avoid sterilisation of that area for future petroleum-related*	The Project is not in close proximity to any existing petroleum authorisations as outlined in chapter 16: Infrastructure, Marine Recreation and Other Users (volume 2B).	No change to project compliance with this policy.

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
activity consistent with Government policy, and demonstrate how they, in order of preference: *a) avoid, or* *b) minimise, or* *c) mitigate* *potential adverse impacts on those activities.* *d) If it is not possible to mitigate significant adverse impacts, proposals should set out the reasons for proceeding.*		
15 Energy – Transmission		
Transmission Policy 1 *Subject to the appropriate environmental assessments, electricity transmission proposals that maintain or improve the security and diversity of Ireland's energy supply should be supported, including interconnectors, relevant EU Projects of Common Interest (PCIs), and projects in receipt of relevant alternative EU priority energy infrastructure classification provided for by the EU TEN-E regulations.* *This should include development of the offshore transmission system and connection with the onshore transmission system necessary to meet the Government's target of 5 GW of offshore renewables by 2030, as well as development of associated transmission system / interconnector infrastructure for hybrid offshore projects, connecting offshore renewable energy installations with Ireland and one or more other electricity transmission systems.*	The Project, which is subject to an EIAR, includes the necessary offshore and onshore cable connection for the proposed offshore wind farm to Ireland's electricity transmission system.	No change to project compliance with this policy.
Transmission Policy 2 Proposals for activities that are in or could affect energy transmission proposals in sites held under a permission or that are subject to an ongoing permitting or consenting process for energy transmission proposals should demonstrate that they will, in order of preference: a) avoid, b) minimise, c) mitigate adverse impacts, or d) if it is not possible to mitigate significant adverse impacts, proposals should set out the reasons for proceeding	The Project will not affect other permitted or proposed energy transmission projects.	No change to project compliance with this policy.
Transmission Policy 3		No change to project compliance with this policy.

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
Decisions on transmission developments should be informed by consideration of space required for other activities of national importance described in the NMPF.	The Project does not impact in any discernible way on space required for other activities of national importance described in the NMPF.	
Transmission Policy 4 *Where possible, opportunities for land-based, coastal infrastructure that is critical to and supports energy transmission should be prioritised in plans and policies. Designation of land-based zones for the purposes of co-ordination and integration with relevant Marine Plans must be considered, where appropriate.*	Transmission Policy 4 is not applicable to the Project.	n/a
Transmission Policy 5 *Proposals for construction or operation activities within one nautical mile of either of the two existing natural gas interconnector pipelines shall be avoided.* *If construction or operation activities are proposed to take place within one nautical mile of either of the two existing natural gas interconnector pipelines, the views of Gas Networks Ireland in relation to how such activities could impact the pipelines shall be taken into account and either appropriate mitigation measures put in place or the proposed activities altered.* *If construction or operation activities involve the crossing of either of the two existing natural gas interconnector pipelines by other pipelines or cables, the views of Gas Networks Ireland in relation to how such activities could impact the pipelines shall be taken into account and either appropriate mitigation measures be put in place or the proposed activities altered.*	The Project is not within 1 nm of the two existing natural gas interconnectors as outlined in chapter 16: Infrastructure, Marine Recreation and Other Users (volume 2B).	No change to project compliance with this policy.
16 Fisheries		
Fisheries Policy 1 *Proposals that may have significant adverse impacts on access for existing fishing activities, must demonstrate that they will, in order of preference:* *a) avoid,* *b) minimise, or* *c) mitigate* *such impacts.* *d) If it is not possible to mitigate significant adverse impacts on fishing activity, the public benefits for proceeding with the proposal that outweigh the significant adverse impacts on existing fishing activity must be demonstrated.*	The Project will not result in significant adverse effects on existing fishing activities as outlined in chapter 12: Commercial Fisheries. A Fisheries Management and Mitigation Strategy has been prepared and is provided in appendix 5-6 (volume 2A). The development of the Project considered existing fishing activity as outlined in chapter 4: Consideration of Alternatives.	The following chapters have been updated in response to the RFI: • Chapter 12 Addendum: Commercial Fisheries (EIAR volume 2B Addendum). The updates do not amend the Project compliance with this policy.

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
Fisheries Policy 2 *Where significant impact upon fishing activity arising from any proposal is identified, a Fisheries Management and Mitigation Strategy (FMMS) should be prepared by the proposer of development or other maritime area use, in consultation with local fishing interests and other interests as appropriate. All efforts should be made to agree the FMMS with those interests.* *Those interests should also undertake to engage with the proposer and provide best available, transparent and accurate information and data in a timely manner to help complete the FMMS. The FMMS should be drawn up as part of readying a proposal prior to submission, with measures identified to be considered in finalising conditions of any authorisations granted. Development of the strategy should be coordinated with other relevant assessments such as EIA where possible.* *The content of the Fisheries Management and Mitigation Strategy (FMMS) should be relevant to the particular circumstances and could include:* *An assessment of the potential impact of all stages of the development or other suggested use on the affected fishery or fisheries, both in socio-economic terms and in relation to environmental sustainability. This assessment* *should include consideration of any impact upon cultural identity within fishing communities,* *as well as identifying indirect / in-combination matters.* *A recognition that the disruption to existing fishing opportunities / activity should be minimised as far as possible.* *Demonstration of the public benefit(s) that outweigh the significant impacts identified.* *Reasonable measures to mitigate any constraints which the proposed development or use may place on existing or proposed fishing activity.* *Reasonable measures to mitigate any potential impacts on sustainability of fish stocks (e.g. impacts on spawning grounds or areas of fish or shellfish abundance) and any socio-economic impacts.* *Where it does not prove possible to agree with FMMS with all interests:* *Divergent views and the reasons for any divergence of views between the parties should be fully explained in the FMMS,*	A Fisheries Management and Mitigation Strategy has been prepared and is provided in appendix 5-6 (volume 2A). Details on consultation with Fisheries is provide in chapter 6: Consultation (volume 2A) and chapter 12: Commercial Fisheries (volume 2B).	The following chapters have been updated in response to the RFI: • Chapter 12 Addendum: Commercial Fisheries (EIAR volume 2B Addendum). The updates do not amend the Project compliance with this policy.

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
and dissenting views should be given a platform within the said FMMS to make their case. *Where divergent views are identified, relevant public authorities should be engaged to identify informal and formal steps designed to enable proposal(s) to progress.*		
Fisheries Policy 3 *Proposals that enhance the sustainability of fisheries or support a sustainable fishing industry, including the industry's diversification and or enhanced resilience to the effects of climate change, should be supported provided they fully meet the environmental safeguards contained within authorisation processes.*	The Project will contribute to reducing the effects of climate change which will result in indirect positive effects on fisheries.	No change to project compliance with this policy.
Fisheries Policy 4 *Infrastructural proposals that enable access to fishing activities should be supported provided they fully meet the environmental safeguards contained within authorisation processes.*	Pertains only to infrastructural proposals that enable access to fishing activities and therefore is not considered further herein.	No change to project compliance with this policy.
Fisheries Policy 5 *Proposals, regardless of the type of activity they relate to, enhancing essential fish habitat, including spawning, nursery and feeding grounds, and migratory routes should be supported. If proposals cannot enhance essential fish habitat, they must demonstrate that they will, in order of preference:* *a) avoid,* *b) minimise,* *c) mitigate* *significant adverse impact on essential fish habitat, including spawning, nursery and feeding grounds, and migration routes.* *d) If it is not possible to mitigate significant adverse impact on essential fish habitat, proposals must set out the reasons for proceeding.*	The Project will not result in significant adverse impact on essential fish habitat, including spawning, nursery and feeding grounds, and migration routes as outlined in chapter 9: Fish and Shellfish Ecology and chapter 12: Commercial Fisheries (volume 2B).	Please see section 2 below. The following chapters have been updated in response to the RFI: • Chapter 9 Addendum: Fish and Shellfish (EIAR volume 2B Addendum); and • Chapter 12 Addendum: Commercial Fisheries (EIAR volume 2B Addendum). The updates do not amend the Project compliance with this policy.
Fisheries Policy 7	Pertains only to port and harbour development and therefore is not considered further herein.	n/a
17 Mineral Exploration and Mining		
Mineral Exploration and Mining Policy 1	Pertains only to mineral exploration and therefore is not considered further herein.	n/a
18 Ports, Harbours and Shipping		

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
Ports, Harbours and Shipping Policy 1 *To provide for shipping activity and freedom of navigation the following factors will be taken into account when reaching decisions regarding development and use:* • *The extent to which the locational decision interferes with existing or planned routes used by shipping, access to ports and harbours and navigational safety. This includes commercial anchorages and approaches to ports as well as key littoral and offshore routes;* • *A mandatory Navigation Risk Assessment;* • *Where interference is likely: whether reasonable alternatives can be identified; and* • *Where there are no reasonable alternatives: whether mitigation through measures adopted in accordance with the principles and procedures established by the International Maritime Organisation can be achieved at no significant cost to the shipping or ports sector.*	A Navigational Risk Assessment (NRA) has been undertaken for the Project and is provided in appendix 13-1: Navigational Risk Assessment (volume 2B). An assessment of the impact on shipping and navigation which concludes there will be no significant impacts is provided in chapter 13: Shipping and Navigation (volume 2B).	The following chapters have been updated in response to the RFI: • Chapter 13 Addendum: Shipping and Navigation (EIAR Volume 2B Addendum). The updates do not amend the Project compliance with this policy.
Ports, Harbours and Shipping Policy 2	Pertains only to port and harbour activities and therefore is not considered further herein.	n/a
Ports, Harbours and Shipping Policy 3	Pertains only to port and harbour activities and therefore is not considered further herein.	n/a
Ports, Harbours and Shipping Policy 4 *Proposals within ports limits, beside or in the vicinity of ports, and / or that impact upon the main routes of significance to a port, must demonstrate within applications that they have:* *been informed by consultation at pre-application stage or earlier with the relevant port authority;* *have carried out a navigational risk assessment including an analysis of maritime traffic in the area; and* *have consulted Department of Transport, MSO and Commissioners of Irish Lights.* *Applicants must continue to engage parties identified in pre-application processes as appropriate during the decision-making process.*	A Navigation Risk Assessment is included in appendix 13-1 (volume 2B). Details on consultation with stakeholders including the MSO and Commissioner of Irish Lights is outlined in chapter 6: Consultation (volume 2A).	No change to project compliance with this policy.
Ports, Harbours and Shipping Policy 5	Pertains only to port and harbour dredging activity and therefore is not considered further herein.	n/a
Ports, Harbours and Shipping Policy 6		n/a

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
In areas of authorised dredging activity, including those subject to navigational dredging, proposals for other activities will not be supported unless they are compatible with the dredging activity.	The Project is not located in an area authorised for dredging activity.	
Ports, Harbours and Shipping Policy 7	Pertains only to port and harbour dredging and maintenance activity and therefore is not considered further herein.	n/a
Ports, Harbours and Shipping Policy 8 *Proposals that cause significant adverse impacts on licensed disposal areas should not be supported. Proposals that cannot avoid such impact must, in order of preference:* *a) minimise,* *b) mitigate, or* *c) if it is not possible to mitigate the significant adverse impacts, proposals must set out the reasons for proceeding.*	The Project is not located in an area licensed for disposal (see chapter 16: Infrastructure, Marine Recreation and Other Users).	No change to project compliance with this policy.
Ports, Harbours and Shipping Policy 9 *Proposals for the management of dredged material must demonstrate that they have been assessed against the waste hierarchy (see Glossary).*	The Project will apply for a Dumping at Sea permit prior to construction. See also chapter 4: Consideration of Alternatives, which examines the options for disposal of material.	No change to project compliance with this policy.
Ports, Harbours and Shipping Policy 10 *Proposals identifying new dredge disposal sites which are subject to best practice and guidance from previous studies should be supported where:* *competent authority decisions incorporate necessary compliance assessments associated with authorisations; and* *they contribute to the policies and objectives of this NMPF.* *Proposals must include an adequate characterisation study, be assessed against the waste hierarchy and must be informed by consultation with all relevant stakeholders.*	The Project will apply for a Dumping at Sea permit prior to construction.	No change to project compliance with this policy.
19 Safety at Sea		
Safety at Sea Policy 1 *Proposals for installation, operation, and decommissioning of Offshore Wind Farms must demonstrate how they will:* • *Minimise navigational risk between commercial vessels arising from an increase in the density of vessels in maritime space as a result of wind farm layout; and* • *Allow for recreational vessels within the Offshore Wind Farm (including consideration of turbine height) or redirect*	A Navigational Risk Assessment (NRA) has been undertaken for the Project and is provided in appendix 13-1: Navigational Risk Assessment (volume 2B). The findings of the NRA and chapter 13: Shipping and Navigation with regard to Safety at Sea Policy 1 are further considered in section 7 of the Planning Report.	The following chapters have been updated in response to the RFI: • Chapter 13 Addendum: Shipping and Navigation (EIAR Volume 2B Addendum). And • Planning Report Addendum

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
recreational vessels, minimising navigational risk arising between recreational and commercial vessels.		The updates do not amend the Project compliance with this policy.
Safety at Sea Policy 2 *Proposals for infrastructure that have the potential to significantly reduce under-keel clearance must demonstrate how they will, in order of preference:* *a) avoid,* *b) minimise,* *c) mitigate* *adverse impacts, or* *d) if it is not possible to mitigate significant adverse impacts, proposals should set out the reasons for proceeding.*	The impact of the Project on under-keel clearance is assessed in chapter 13: Shipping and Navigation (volume 2B) and it is concluded there will be no significant impacts.	The following chapters have been updated in response to the RFI: • Chapter 13 Addendum: Shipping and Navigation (EIAR Volume 2B Addendum). The updates do not amend the Project compliance with this policy.
Safety at Sea Policy 3 *All proposals for temporary or permanent fixed infrastructure in the maritime area must ensure navigational marking in accordance with appropriate international standards and ensure inclusion in relevant charts where applicable.*	A Lighting and Marking Plan has been prepared and is included in appendix 5-8 (see volume 2A).	The following chapters have been updated in response to the RFI: • Appendix 5-8 Addendum: Updated Lighting and Marking Plan (EIAR volume 2A Addendum) The updates do not amend the Project compliance with this policy.
Safety at Sea Policy 4 *Establishing, changing or disestablishing Aids to Navigation (AtoN) must be sanctioned, in advance of works, by the Commissioners of Irish Lights.*	A Lighting and Marking Plan has been prepared and is included in appendix 5-8 (see volume 2A). The Applicant has consulted with the Commissioners of Irish Lights as outlined in chapter 6: Consultation (see volume 2A).	The following chapters have been updated in response to the RFI: • Appendix 5-8 Addendum: Lighting and Marking Plan (EIAR volume 2A Addendum) The updates do not amend the Project compliance with this policy.
Safety at Sea Policy 5 *Proposals must identify their potential impact, if any, on Maritime Emergency Response (Search and Rescue (SAR), Maritime Casualty and Pollution Response) operations. Where a proposal may have a significant impact on these operations it must demonstrate how it will, in order of preference:*	The Project has been designed in accordance with to minimise impacts on SAR as outlined in chapter 13: Shipping and Navigation (volume 2B).	The following chapters have been updated in response to the RFI: • Chapter 13 Addendum: Shipping and Navigation (EIAR Volume 2B Addendum).

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
a) avoid, *b) minimise,* *c) mitigate* *adverse impacts, or* *d) if it is not possible to mitigate significant adverse impacts, proposals should set out the reasons for proceeding, supported by parties responsible for maritime SAR.*	The Applicant has consulted with the Irish Coast Guard as outlined in chapter 6: Consultation. An Emergency Response Co-operation Plan (ERCoP) has been prepared and is included in appendix 5-7 (see volume 2A of the EIAR)	The updates do not amend the Project compliance with this policy.
20 Sports and Recreation		
Sports and Recreation Policy 1	Pertains only to water-based sports and marine recreation development and therefore is not considered further herein.	n/a
Sports and Recreation Policy 2 *Proposals should demonstrate the following in relation to potential impact on recreation and tourism:* *The extent to which the proposal is likely to adversely impact sports clubs and other physical infrastructure.* *recreational users, including the extent to which proposals may interfere with facilities or other physical infrastructure.* *The extent to which any proposal interferes with access to and along the shore, to the water, use of the resource for recreation or tourism purposes and existing navigational routes or navigational safety.* *The extent to which the proposal is likely to adversely impact on the natural environment.*	The impact of the Project on recreational, amenity and community facilities has been considered in chapter 18: Population and Human Health (volume 2C) and chapter 16: Infrastructure, Marine Recreation and Other Users (volume 2B). It is concluded that there are no significant effects.	No change to project compliance with this policy.
Sports and Recreation Policy 3	Pertains only to water-based sports and marine recreation development and therefore is not considered further herein.	n/a
Sports and Recreation Policy 4	Pertains only to marine and coastal resources for tourism activities development and therefore is not considered further herein.	n/a
Sports and Recreation Policy 5 *Proposals should seek to enhance water safety through provision of appropriate International Organization for Standardization (ISO) and European Committee for Standardization (CEN) compliant safety signage. In general the safety of persons should be a key consideration for planners and due consideration should be given to best practice guidance for marine and coastal recreation areas endorsed by the Visitor Safety in the Countryside Group.*	The Project has considered safety at sea in chapter 13: Shipping and Navigation (volume 2B).	The following chapters have been updated in response to the RFI: • Chapter 13 Addendum: Shipping and Navigation (EIAR Volume 2B Addendum). The updates do not amend the Project compliance with this policy.

Key Sectoral / Activity Policies	Project Compliance	Updated assessment in response to RFI
22 Telecommunications		
Telecommunications Policies 1 – 4	Pertain only to telecommunications development and therefore is not considered further herein.	n/a
23 Tourism		
Tourism Policy 1	Pertains only to proposals enabling, promoting or facilitating sustainable tourism and recreation activities and therefore is not considered further herein.	n/a
Tourism Policy 2 *Proposals must identify possible impacts on tourism. Where a potential significant impact upon tourism is identified it should be demonstrated how the potential negative consequences to tourism in communities will be minimised. This must include assessment of how the benefits of proposals are not outweighed by potential negative impacts.*	The impact of the Project on tourism has been considered in chapter 18: Population and Human Health (volume 2C). It is concluded that there are no significant effects.	No change to project compliance with this policy.
Tourism Policy 3	Pertains only to tourism development and therefore is not considered further herein.	n/a

2 MODELLING AND MAPPING COMPLETED TO SUPPORT APPLICANT'S RESPONSE TO RFI 3

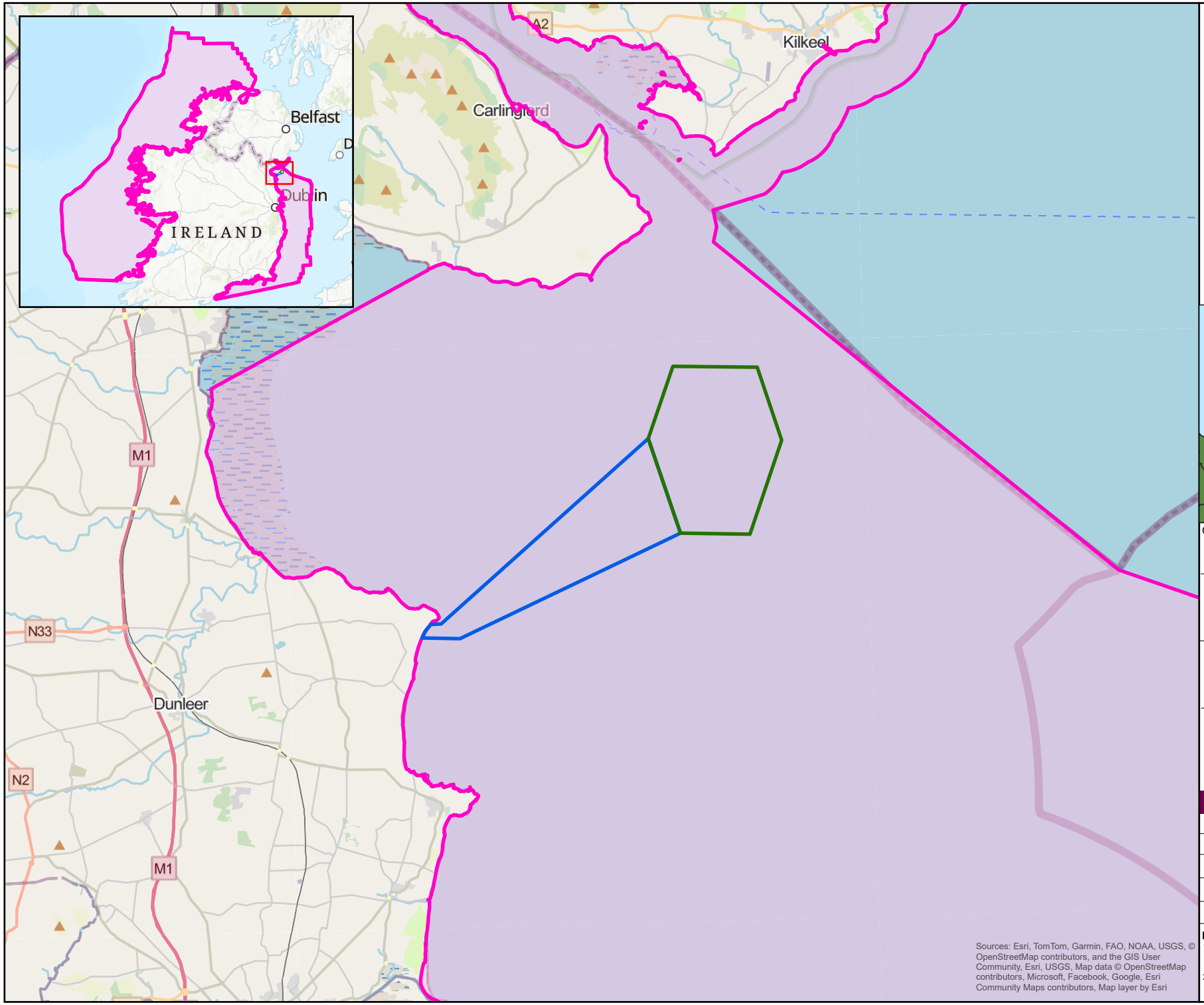
2.1 (i) The potential spatial extent of habitat lost (D6C4)

The threshold for **Habitat Loss (D6C4)** is *"The maximum proportion of a benthic broad habitat type in an assessment area that can be lost is 2 % of its natural extent (≤ 2 %)"* as outlined in the Marine Strategy Framework Directive.

To accommodate the precautionary scenario for the purposed of this assessment, the entirety of the offshore wind farm area and offshore cable corridor as shown in Figure 2A-1 is assumed to be the extent of the habitat loss, equating to approximately 52,699,000 m^2. Thus, the area of habitat loss equates to 0.08 % of the MSFD Celtic Seas North Inner Marine Reporting Unit (68,728,550,565 m^2), which can be seen in Figure 2A-1 below.

The extent of the habitat loss will be less in reality and be localised to WTG locations, array cables and offshore cables inclusive of a 10m buffer. This spatial extent of habitat lost, as described in Table 8-11 in chapter 8: Benthic, Subtidal and Intertidal Ecology (EIAR volume 2B) is 331,121 m^2. This area of habitat lost equates to <0.0005% of the MSFD Celtic Seas North Inner Marine Reporting Unit.

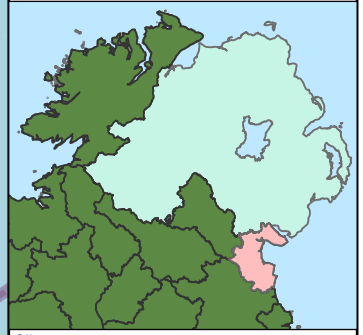
Assuming the precautionary approach of the entire offshore wind farm area and offshore cable corridor being an area of long-term habitat loss, the area equates to 0.08% of the MSFD Celtic Seas North Inner Marine Reporting Unit which is well under the 2% threshold included in **D6C4** in MSFD.



Legend

- Offshore Wind Farm Area
- Offshore Cable Corridor
- Celtic Seas North-Inner Marine Reporting Unit

Data Source: OWL, Marine Institute



Client

Oriel Wind Farm Limited

Project

Oriel Wind Farm Project

Title **Figure 2A-1:**
The potential spatial extent of habitat lost (D6C4) or adversely effected (D6C5) arising from the Project

RPS A TETRA TECH COMPANY
West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

Issue Details

Drawn: NR	**Project No.** MDR1520c
Checked: CC	**File Ref:** MDR1520c-RPS-AP-XX-D-Z-0036.S0.A1C01
Approved: CC	
Scale: 1:200,000 (A4)	**Projection:** ITM (IRENET95) Geographic Co-ordinates: ETRS89
Date: 03/12/2025	

NOTE:

1. This drawing is the property of RPS Group Ltd. It is a confidential document and must not be copied, used, or its contents divulged without prior written consent.
2. ©Tailte Éireann. All rights reserved. Licence number CYAL50455061

2.2 (ii) The potential special extent of adverse effects on habitats (D6C5)

The threshold for **Adverse effects on habitats (D6C5)** is *"The maximum proportion of a benthic broad habitat type in an assessment area that can be adversely affected is 25 % of its natural extent (≤ 25 %). This includes the proportion of the benthic broad habitat type that has been lost (D6C5). A benthic broad habitat type is adversely affected in an assessment area if it shows an unacceptable deviation from the reference state in its biotic and abiotic structure and functions (e.g. typical species composition, relative abundance and size structure, sensitive species or species providing key functions, recoverability and functioning of habitats and ecosystem processes) (D6C5)"* as outlined in the Marine Strategy Framework Directive.

To accommodate the precautionary scenario for the purposed of this assessment, the entirety of the Offshore wind farm area and offshore cable corridor as shown in Figure 2A-1 is assumed to be the extent of the habitat loss and adverse effects, equating to approximately 52,699,000 m^2, for both the Construction and operational phases. Thus, the area of adverse effects on habitats equates to 0.08% of the MSFD Celtic Seas North Inner Marine Reporting Unit (mi), which can be seen in Figure 2A-1 above.

The extent of the habitat adversely effected will be less in reality and different for both the Construction and operational phases of the project. As described in Table 8-11 of chapter 8: Benthic Subtidal and Intertidal Ecology (EIAR volume 2B), the construction phase is expected to affect habitats in a total area of is 709,500 m^2, while the operational phase is expected to affect 387,000 m^2 of habitat. These equate to 0.001% and <0.0005% of the MSFD Celtic Seas North Inner Marine Reporting Unit, respectively.

Assuming the precautionary approach of the entire offshore wind farm area and offshore cable corridor being an area of habitat adversely effected, the area equates to 0.08% of the MSFD Celtic Seas North Inner Marine Reporting Unit which is well under the 25% threshold included in **D6C5** in MSFD

All habitat loss and effects will occur entirely in the project boundaries as shown in Figure 2A-1 noting that the total extents set out above only represent a small proportion of the project area. None of the habitats lost will occur within known spawning, nursery or feeding grounds for any 'important' species as per the NMPF and if such habitat loss effects were to occur in these habitats, these would be highly limited in the context of the available spawning, nursery or feeding habitats for these species.

2.3 (iii) The modelled impulsive noise (D11C1) with and without abatement

The threshold for **Impulsive noise (D11C1)** is ***"****For short-term exposure (1 day, i.e., daily exposure), the maximum proportion of an assessment/habitat area utilised by a species of interest that is accepted to be exposed to impulsive noise levels higher than the Level of Onset of Biologically adverse Effects (LOBE), over 1 day, is 20 % or lower (≤ 20 %)"* as outlined in the Marine Strategy Framework Directive.

In the absence of a specific definition, LOBE is interpreted as the noise levels above which individuals may begin to experience significant adverse effects and an impairment of their fitness or vital functions (i.e. what would be considered significant behavioural disturbance). The Applicant's assessment of LOBE uses the well-accepted NMFS (2005) Level B harassment threshold of 160 dB re 1 µPa (rms) for behavioural disturbance from impulsive noise. NMFS (2005) defines Level B harassment as having the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioural patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering but which does not have the potential to injure a marine mammal or marine mammal stock in the wild. Beyond this threshold the behavioural responses are likely to become less severe (e.g. minor changes in speed, direction and/or dive profile, modification of vocal behaviour and minor changes in respiratory rate, Southall *et al.* (2007)). The threshold of 160 dB re 1 µPa (rms) is considered more precautionary than the threshold of 176 dB re 1 μPa^2s SEL presented in Annex III of Ireland's Marine Strategy Part 1 (Government of Ireland (2024).

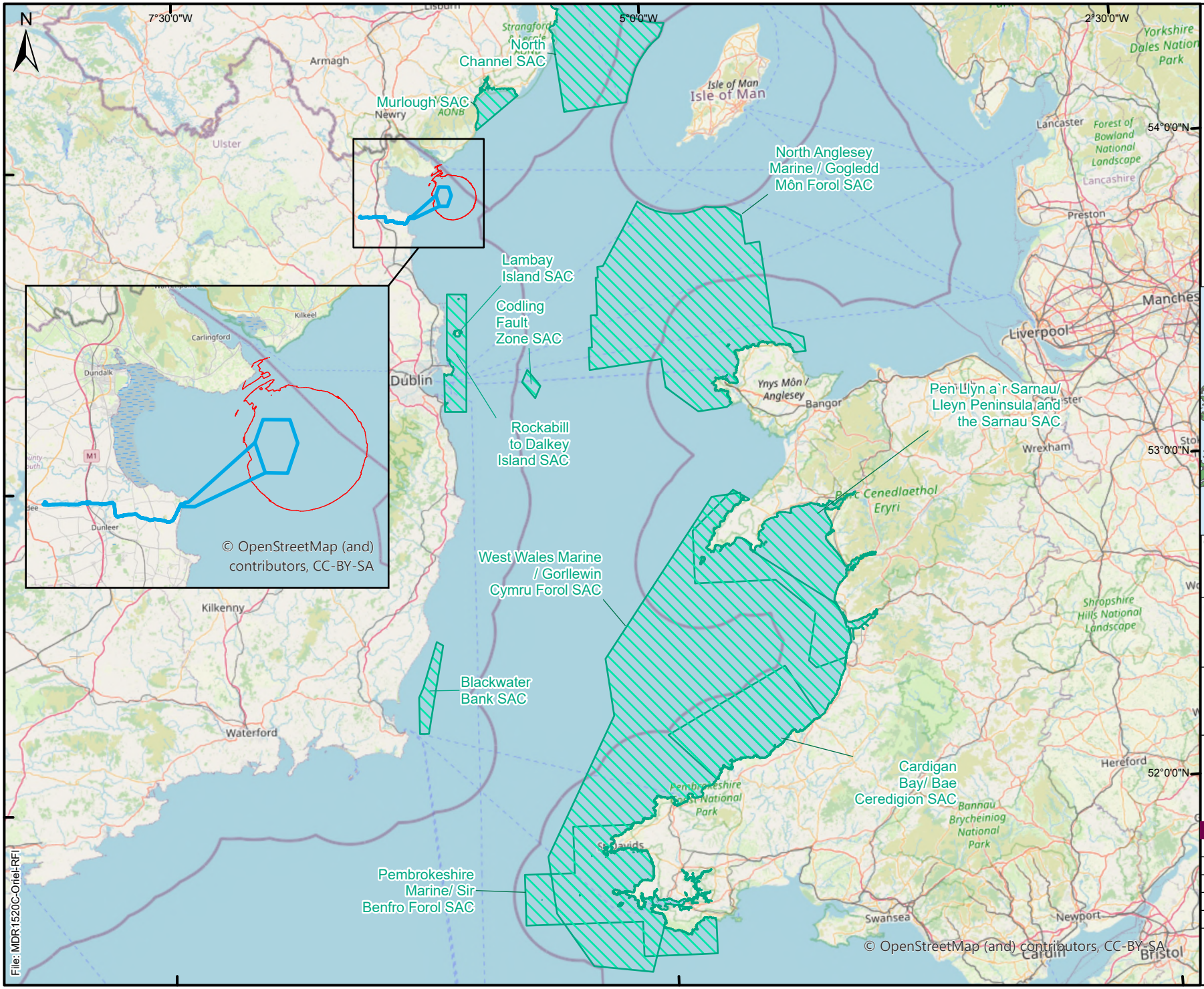
Impulsive activities included in the assessment includes piling without noise abatement (section 2.3.1). An illustrative example of piling with noise abatement (using the PULSE system) is also included for comparison (section 2.3.2).

2.3.1 Piling at the Project without noise abatement

There is no overlap of the threshold of 160 dB re 1 µPa (rms) (indicating strong disturbance) with any designated sites (Special Areas of Conservation (SACs)) for marine mammals (see Table 2A-1), as presented in Figure 2A-2. Therefore, on a given day, the proportion of a **habitat area** (i.e. the designated SAC) utilised by a species of interest that is exposed to impulsive noise levels higher than the LOBE (160 dB re 1 µPa (rms)) is zero, and thus well below the short-term (daily) 20% and long-term (one year) 10% guidance thresholds for impulsive noise.

Table 2A-1: **Designated SACs and relevant qualifying features for marine mammals.**

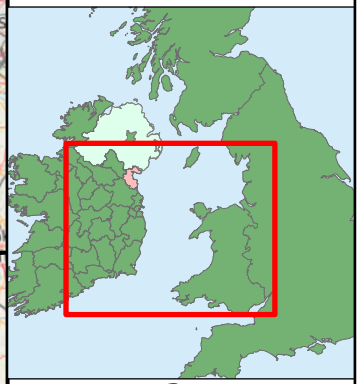
Designated feature	SAC	Closest distance to offshore wind farm area or offshore cable corridor (km)	Area of SAC (km^2)
Harbour porpoise	Rockabill to Dalkey Island SAC	30.6	272.86
	Lambay Island SAC	43.1	4.04
	North Channel SAC	47.8	1603.53
	North Anglesey Marine SAC	56.0	3249.41
	Codling Fault Zone SAC	63.0	29.82
	West Wales Marine SAC	136.0	7368.18
	Blackwater Bank SAC	145.3	124.01
Bottlenose dolphin	Lleyn Peninsula and the Sarnau SAC	139.3	1460.39
	Cardigan Bay SAC	196.4	958.23
Grey seal	Lambay Island SAC	43.1	4.04
	Lleyn Peninsula and the Sarnau SAC	139.3	1460.39
	Cardigan Bay SAC	19	958.23
	Pembrokeshire Marine SAC	219.3	1380.94
Harbour seal	Murlough SAC	22	119.08
	Lambay Island SAC	43.1	4.04



Legend

- Application Boundary
- 160dB SPL_{rms}
- Special Area of Conservation (SAC)

Data Sources: Client. Seiche, NPWS



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title Figure 2A-2
Marine mammal disturbance range unmitigated piling of monopiles at the east modelled location, with the NMFS (2005) threshold strong disturbance (160 dB re 1 µPa (rms)) and designated sites for marine mammals.

rps
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

Issue Details

Drawn By: NG	**Project No.** MDR1520C
Checked By: NG	**File Ref:** MDR1520C-RFI-TSK3-UWN-013-02.A1C01
Approved By: BP	
Scale: 1:1,750,000 @ A4	**Projection:** ITM (IRENET95)
Date: 11/12/2025	Geographic Co-ordinates: ETRS89

NOTE: 1. This drawing is the property of RPS Group Ltd. It is a confidential document and must not be copied, used, or its contents divulged without prior written consent.
2. All levels are referred to Ordnance Datum, Malin Head.

File: MDR1520C-Oriel-RFI

The area out to the 160 dB re 1 µPa (rms) threshold is 192.35 km^2 (see Figure 2A-2). Table 2A-2 demonstrates the percentage of each specific Management Unit (MU) experiencing strong disturbance is less than 1% for all species. Therefore, on a given day, the proportion of an assessment area (i.e. the species-specific MU) utilised by a species of interest that is exposed to impulsive noise levels higher than the LOBE (160 dB re 1 µPa (rms)) is less than 1% and therefore well below the short-term (daily) 20% guidance threshold for impulsive noise.

Assuming 26 days of piling at the Project, a daily footprint of <1% for 26 days over one year would result in an average of less than 0.05% disturbance over a year (see Table 2A-2 for each species-specific percentage). Therefore, for long-term exposure (over one year), the proportion of an assessment area (i.e. the species-specific MU) utilised by a species of interest that exposed to impulsive noise levels higher than the LOBE (160 dB re 1 µPa (rms)) is well below the threshold of 10%.

Table 2A-2: Proportion of the species-specific MU with the potential to be impacted by strong disturbance (160 dB re 1 µPa (rms), from NMFS (2005) Level B harassment) for unmitigated piling.

Species	Management Unit	Total Area of MU (km^2)	Area out to 160 dB re 1 µPa (rms) threshold (km^2)	Percentage of MU experiencing strong disturbance per day of piling	Percentage of MU experiencing strong disturbance a year
Harbour porpoise	Celtic and Irish Seas (CIS) MU	516,525.27	192.35	0.04%	0.003%
Bottlenose dolphin	Irish Sea MU	37,457.68		0.51%	0.04%
	SCANS IV Blocks: CS-D and CS-E	47,509.88		0.40%	0.03%
Common dolphin	Celtic and Greater North Seas (CGNS) MU	1,558,532.37		0.01%	0.001%
Minke whale	CGNS MU	1,558,532.37		0.01%	0.001%
Grey seal	Northern Ireland, East Ireland, South East Ireland SMUs	28,220.53		0.68%	0.05%
Harbour seal	Northern Ireland, East Ireland, South East Ireland SMUs	28,220.53		0.68%	0.05%

2.3.2 Piling at the Project with noise abatement

Despite the assessment of injury and/or disturbance to marine megafauna from underwater noise during pile driving concluding no significant impact, the Project is committed to the consideration of noise abatement measures for the purpose of reducing sound levels from construction piling. The Project will use a drive-drill methodology for the monopile installation which minimises the piling duration and proposes to use a casing option known as a MODIGA as its noise abatement solution (see appendix 10-8: Comprehensive Review of Relevant Mitigation (Noise Abatement)). The proposed MODIGA with air bubble ring will lower sound transmission due to the acoustic impedance of air by reducing the proportion of vibrational energy from the pile transmitted through the air layer into the surrounding water. It was not possible to model the precise level of reduction of noise levels at this stage as this system will be bespoke to the Project, however, a noise modelling study was undertaken for a range of Noise Abatement Systems (NAS) options to demonstrate the efficacy of applying commercially available NAS technology during piling at the Project (appendix 10-6: NAS Modelling Report). One such system modelled was the in-line hammer PULSE technology and was the system representing the minimum noise attenuated from the different NAS considered. The results from the PULSE technology have therefore been used here as an illustrative example of modelled piling with a commercially available noise abatement system.

NAS reduces the impact ranges and therefore, as before (without NAS) there is no overlap of the threshold of 160 dB re 1 µPa (rms) (indicating strong disturbance) with any designated sites SACs for marine

mammals (see Table 2A-1), as presented in Figure 2A-3. Therefore, on a given day, the maximum proportion of a habitat area (i.e. a designated SAC) utilised by a species of interest that is exposed to impulsive noise levels higher than the LOBE (160 dB re 1 µPa (rms)) is zero, and well below the short-term (daily) 20% and long-term (one year) 10% guidance thresholds for impulsive noise.

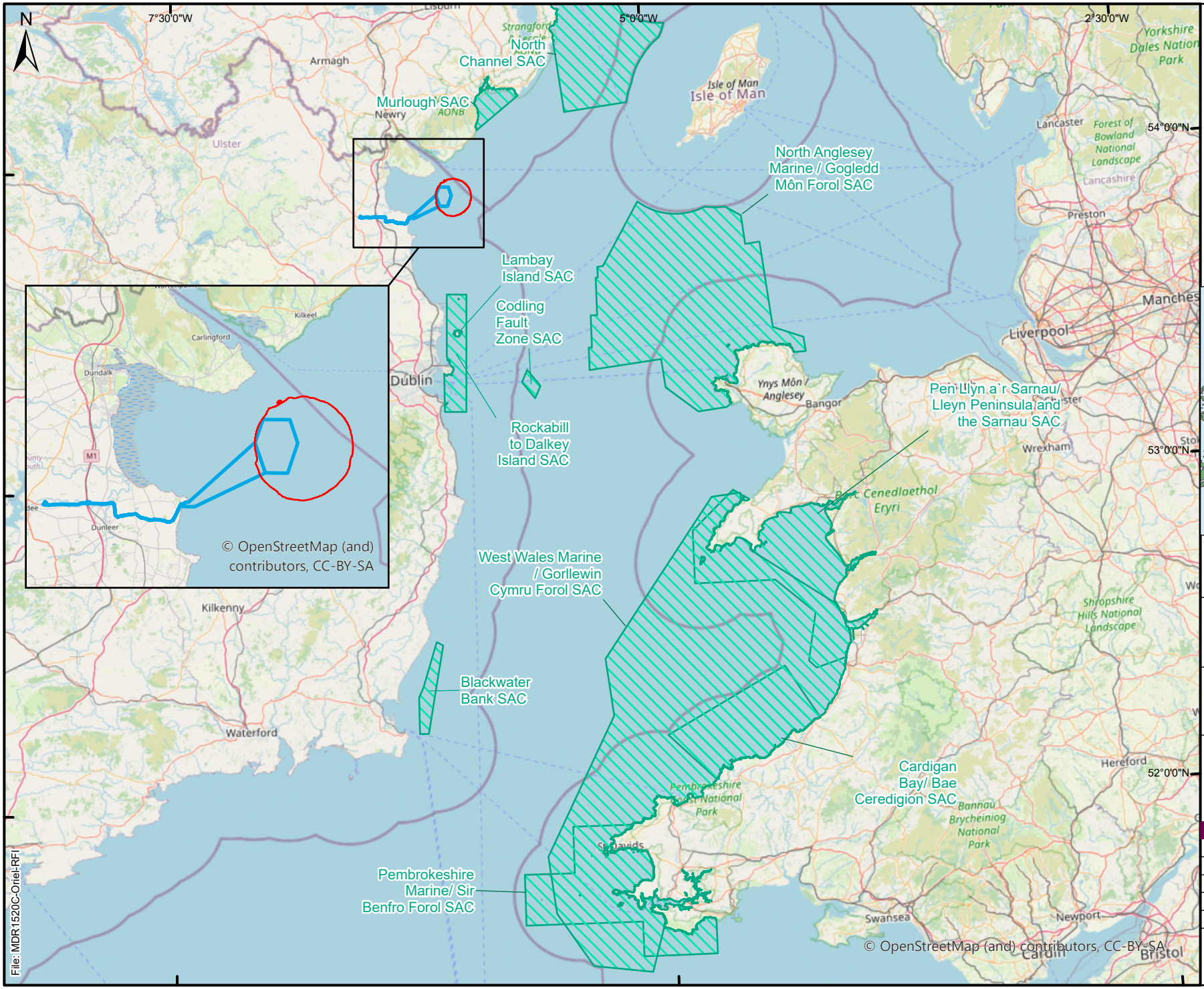
The area out to the 160 dB re 1 µPa (rms) threshold for mitigated piling (with PULSE) is 123.70 km^2 (Figure 2A-3). Table 2A-3 demonstrates the percentage of each specific MU experiencing strong disturbance is less than 0.45% for all species.

Therefore, on a given day, the proportion of an assessment area (i.e. the species-specific MU) utilised by a species of interest that is exposed to impulsive noise levels higher than the LOBE (160 dB re 1 µPa (rms)) is less than 1% and therefore well below the short-term (daily) 20% guidance threshold for impulsive noise.

Assuming 26 days of piling at the Oriel Project, a daily footprint of <1% for 26 days over one year would result in an average of less than 0.04% disturbance over a season (see Table 2A-3 for each species-specific percentage). Therefore, for long-term exposure (over one year), the proportion of an assessment area (i.e. the species-specific MU) utilised by a species of interest that is exposed to impulsive noise levels higher than the LOBE (160 dB re 1 µPa (rms)) is well below the threshold of 10%.

Table 2A-3: Proportion of the species-specific Management Unit with the potential to be impacted by strong disturbance (160 dB re 1 µPa (rms), from NMFS (2005) Level B harassment) for mitigated piling (with PULSE).

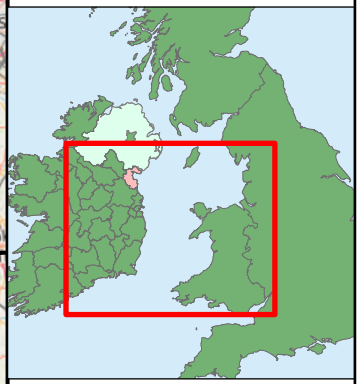
Species	Management Unit	Total Area of MU (km^2)	Area out to 160 dB re 1 µPa (rms) threshold (km^2)	Percentage of MU experiencing strong disturbance per day of piling	Percentage of MU experiencing strong disturbance a year
Harbour porpoise	CIS MU	516,525.27	123.70	0.02%	0.002%
Bottlenose dolphin	Irish Sea MU	37,457.68		0.33%	0.02%
	SCANS IV Blocks: CS-D and CS-E	47,509.88		0.26%	0.02%
Common dolphin	CGNS MU	1,558,532.37		0.01%	0.001%
Minke whale	CGNS MU	1,558,532.37		0.01%	0.001%
Grey seal	Northern Ireland, East Ireland, South East Ireland SMUs	28,220.53		0.44%	0.03%
Harbour seal	Northern Ireland, East Ireland, South East Ireland SMUs	28,220.53		0.44%	0.03%



Legend

- Application Boundary
- 160dB SPL_{rms}
- Special Area of Conservation (SAC)

Data Sources: Client. Seiche, NPWS



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title Figure 2A-3
Marine mammal disturbance ranges for monopiles mitigated with NAS (PULSE) at the east modelled location, with the NMFS (2005) threshold strong disturbance (160 dB re 1 µPa (rms)) and designated sites for marine mammals

RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

Issue Details

Drawn By: NG	**Project No.** MDR1520C
Checked By: NG	**File Ref:** MDR1520C-RFI-TSK3-UWN-015-01
Approved By: BP	
Scale: 1:1,750,000 @ A4	**Projection:** ITM (IRENET95)
Date: 11/12/2025	Geographic Co-ordinates: ETRS89

NOTE: 1. This drawing is the property of RPS Group Ltd. It is a confidential document and must not be copied, used, or its contents divulged without prior written consent.
2. All levels are referred to Ordnance Datum, Malin Head.

File: MDR1520C-Oriel-RFI

2.4 iv) the modelled continuous noise (D11C2)

The threshold for Impulsive noise (D11C2) is "*20 % of the target species habitat having noise levels above LOBE not to be exceeded in any month of the assessment year, in agreement with the conservation objective of the 80 % of the carrying capacity/habitat size*" as outlined in the Marine Strategy Framework Directive.

The proposed approach for the assessment of LOBE for continuous noise is to use the well-accepted NMFS (2005) level B threshold of 120 dB re 1 µPa (rms) for behavioural disturbance from continuous noise.

Continuous noise activities included in the assessment includes drilled piling, surveys (Multi Beam Echo-Sounders), cable laying / cable trenching and vessels.

As outlined in Table 1-26 in appendix 10-2: Subsea Noise Technical Report, the impact ranges for drilled piling, cable trenching and cable laying are considered to be smaller than that of the vessels which will be used to carry out these activities, therefore the impact ranges for vessels have been assessed as a proxy (section 2.4.1).

The use of the NMFS threshold of 120 dB re 1 µPa (rms) led to predicted ranges of disturbance from construction vessels at the Project between 755 m and 8.5 km depending on vessel type; with survey vessel and support vessels, crew transfer vessels (CTVs) and scour / cable protection / seabed preparation / installation vessels leading to the greatest range of disturbance (see Table 10-41 in chapter 10 Marine Mammals and Megafauna (EIAR volume 2B). As such, the maximum disturbance range of 8.5 km was used to assess against the threshold for continuous noise as an effective deterrence range (EDR), as presented in section 2.4.1.

The disturbance range as a result of geophysical surveys is approximately 1.41 km (see Table 1-30 in appendix 10-2: Subsea Noise Technical Report (EIAR volume 2B) and was used to assess against the threshold for continuous noise as an EDR, as presented in section 2.4.2.

2.4.1 Vessels

The vessel EDR was mapped at the furthest east location, as the closest possible point to any marine mammal SACs. The area out to the 8.5 km EDR is 226.98 km^2 (Figure 2A-4). Table 2A-4 demonstrates the percentage of each specific MU experiencing strong disturbance is less than 1% for all species. This represents a precautionary scenario, as other vessel disturbance ranges are much smaller (ranging from 20m to 3.6km, see Table 10-41 in chapter 10: Marine mammals and megafauna of the Environmental Impact Assessment Report (EIAR)).

For continuous noise, 20% of the target species habitat having noise levels above LOBE is not to be exceeded in any month of the assessment year. Using the 8.5km EDR (Figure 2A-4) there is no overlap with any designated SACs. Therefore, the maximum proportion of a species habitat (i.e. the designated SAC) higher than the LOBE (120 dB re 1 µPa (rms)) is zero, and thus well below the monthly guidance threshold for continuous noise.

Table 2A-4: Proportion of the species-specific MU with the potential to be impacted by strong disturbance (120 dB re 1 µPa (rms) (based on a maximum 8.5km radius) from vessels, from NMFS (2005) Level B harassment).

Species	Management Unit	Total Area of MU (km^2)	Area out to 120 dB re 1 µPa (rms) threshold (km^2)	Percentage of MU experiencing strong disturbance from maximum EDR from vessels (8.5km)
Harbour porpoise	CIS MU	516,525.27	226.98	0.04%
Bottlenose dolphin	Irish Sea MU	37,457.68		0.61%
	SCANS IV Blocks: CS-D and CS-E	47,509.88		0.48%

Species	Management Unit	Total Area of MU (km^2)	Area out to 120 dB re 1 µPa (rms) threshold (km^2)	Percentage of MU experiencing strong disturbance from maximum EDR from vessels (8.5km)
Common dolphin	CGNS MU	1,558,532.37		0.01%
Minke whale	CGNS MU	1,558,532.37		0.01%
Grey seal	Northern Ireland, East Ireland, South East Ireland SMUs	28,220.53		0.80%
Harbour seal	Northern Ireland, East Ireland, South East Ireland SMUs	28,220.53		0.80%

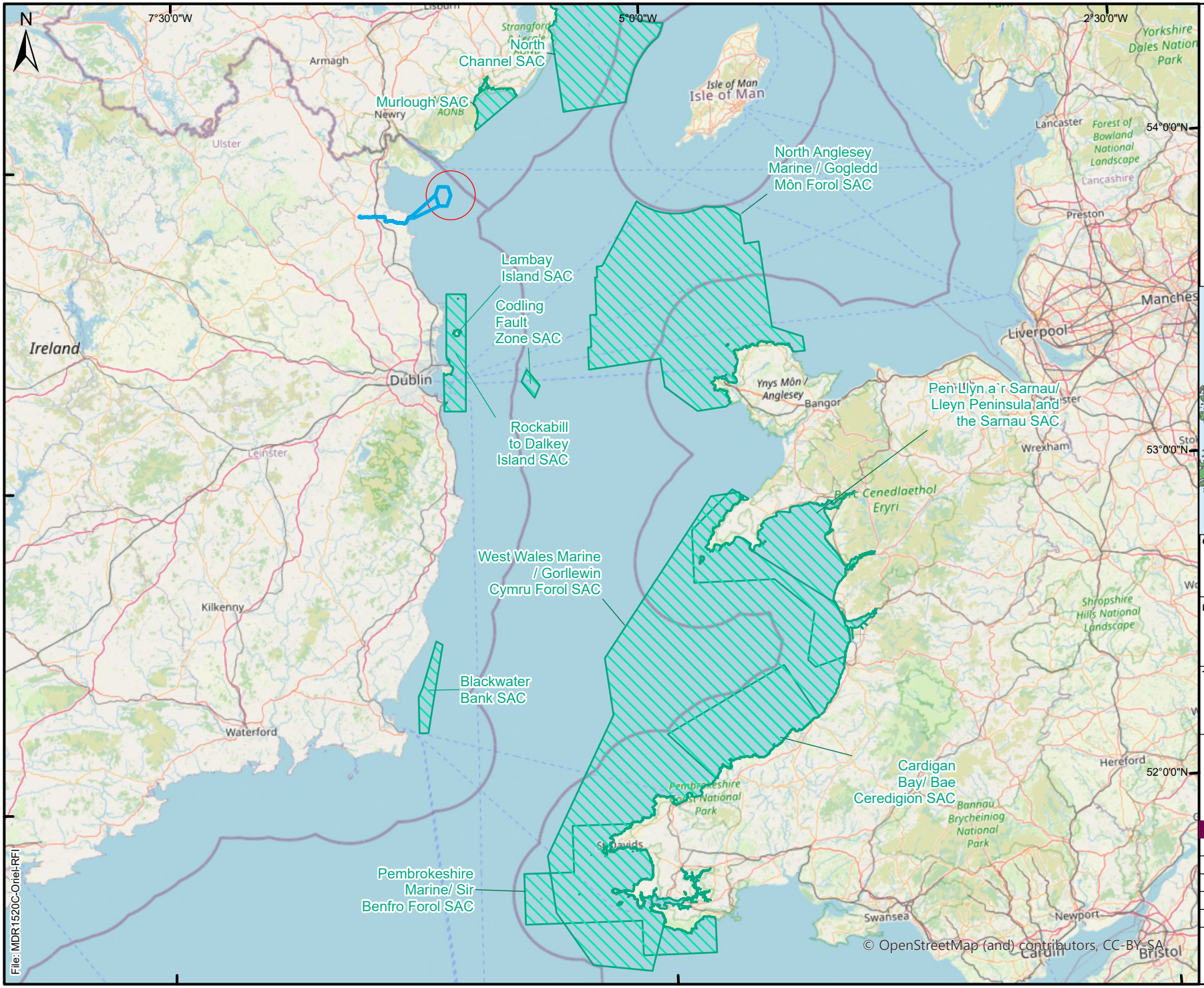
2.4.2 Geophysical surveys

The area out to the 1.41 km EDR for geophysical surveys is 6.25 km^2, and Table 2A-5 demonstrates the percentage of each specific MU experiencing strong disturbance is less than 0.025% for all species.

Using the 1.41 km EDR there is no overlap with any designated SACs. Therefore, the maximum proportion of a species habitat (i.e. the designated SAC) higher than the LOBE (120 dB re 1 µPa (rms)) is zero, and thus well below the monthly guidance threshold for continuous noise.

Table 2A-5: Proportion of the species-specific MU with the potential to be impacted by strong disturbance (120 dB re 1 µPa (rms)) (based on a maximum 1.4km radius) from site-investigation surveys.

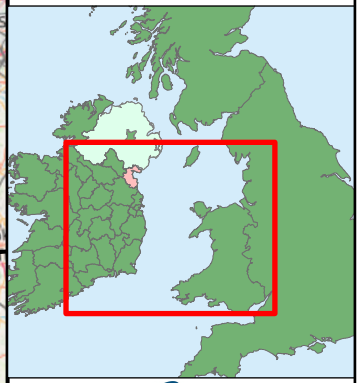
Species	Management Unit	Total Area of MU (km^2)	Area out to 120 dB re 1 µPa (rms) threshold (km^2)	Percentage of MU experiencing strong disturbance from maximum EDR from SISs
Harbour porpoise	CIS MU	516,525.27	6.25	0.001%
Bottlenose dolphin	Irish Sea MU	37,457.68		0.02%
	SCANS IV Blocks: CS-D and CS-E	47,509.88		0.01%
Common dolphin	CGNS MU	1,558,532.37		0.0004%
Minke whale	CGNS MU	1,558,532.37		0.0004%
Grey seal	Northern Ireland, East Ireland, South East Ireland SMUs	28,220.53		0.02%
Harbour seal	Northern Ireland, East Ireland, South East Ireland SMUs	28,220.53		0.02%



Legend

- Application Boundary
- 8.5km effective deterrence range (EDR)
- Special Area of Conservation (SAC)

Data Sources: Client. Seiche, NPWS



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title Figure 2A-4
Maximum vessel disturbance range (8.5km) from the east modelled location, and designated sites for marine mammals.

RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

Issue Details

Drawn By: NG	**Project No.** MDR1520C
Checked By: NG	**File Ref:** MDR1520C-RFI-TSK3-UWN-014-00
Approved By: BP	
Scale: 1:1,750,000 @ A4	**Projection:** ITM (IRENET95)
Date: 11/12/2025	Geographic Co-ordinates: ETRS89

NOTE: 1. This drawing is the property of RPS Group Ltd. It is a confidential document and must not be copied, used, or its contents divulged without prior written consent.
2. All levels are referred to Ordnance Datum, Malin Head.

File: MDR1520C-Oriel-RFI

References

Government of Ireland. (2024). *Ireland's Marine Strategy Part 1: Article 8, 9 and 10 report Annex III.* pp.310.

NMFS. (2005). *Scoping Report for NMFS EIS for the National Acoustic Guidelines on Marine Mammals*. Federal Register*,* 70 (7)**,** pp.1871-1875.

Southall, B. L., Bowles, A. E., Ellison, W. T., Finneran, J. J., Gentry, R. L., Greene Jr, C. R., Kastak, D., Ketten, D. R., Miller, J. H., Nachtigall, P. E. and Richardson, W. J. (2007). *Marine mammal noise-exposure criteria: initial scientific recommendations*. Aquatic Mammals*,* 33 (4)**,** pp.414-521.

Annex 1: Ecosystem Function and Services Report

ORIEL WIND FARM PROJECT

Annex 1 - Ecosystem Functions and Services Assessment Report

MDR1520C
Planning Report – Addendum
A1 C01
December 2025

Contents

Tables

Term	Meaning
ABP	An Bord Pleanála
ACP	An Coimisiún Pleanála
CICES	Common International Classification of Ecosystem Services
EIAR	Environmental Impact Assessment Report
IFC	International Finance Corporation
NIS	Natura Impact Statement
NMPF	National Marine Planning Framework
RFI	Request for Further Information
WRI	World Resources Institute

SYNOPSIS

This report identifies the main ecosystems linked to the Oriel Wind Farm Project (hereafter referred to as “the Project”) and provides the results of screening and evaluating the relevant ecosystem services. It also presents an impact assessment of the identified ecosystem services.

This assessment was undertaken in the context of the relevant policy and guidance, including the report ‘Valuing Ireland’s Blue Ecosystem Services’ (Norton et al., 2018). Standard definitions of ecosystem services were used. The methodology followed for the assessment included screening using accepted ecosystem-services classifications to identify potentially relevant services, characterisation of the baseline in the Project area and an impact assessment linking Project activities to ecosystem functions/services.

The assessment covers offshore and nearshore environments associated with the Project, including benthic habitats (soft sediments, rocky reefs, subtidal sand and mud plains), pelagic waters, submerged/artificial structures and coastal/shoreline ecosystems.

The assessment identifies and assesses ten relevant ecosystem services with respect to the Project:

- Provisioning: Offshore capture fisheries, Inshore capture fisheries, Genetic materials;
- Regulating & maintenance: Lifecycle and habitat services, Pest and disease control, Climate regulation; and
- Cultural: Recreational services, Marine heritage culture & entertainment, Aesthetic services, Spiritual and emblematic values.

The functioning of the majority of the ecosystem services assessed was predicted not to be impaired by the Project. Potential localised impacts were predicted primarily for ecosystem services linked to seascape/landscape and visual amenity.

The report highlights mitigation proposed in the EIAR relevant to each ecosystem service assessed and also notes the Project’s Monitoring Programme which includes a principle for adaptive monitoring approach which will be implemented throughout all phases of the Project.

1 INTRODUCTION

1.1 Purpose

This report provides an assessment of the relevant impacts from the proposed Oriel Wind Farm Project (hereafter referred to as "the Project") on ecosystem functions and services.

An Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) (2024) were submitted as part of a planning application for the Project by Oriel Windfarm Limited ("the Applicant") to An Coimisiún Pleanála (ACP) (formerly An Bord Pleanála) in May 2024 (Case Reference: ABP-319799-24).

This report forms part of the Applicant's response to a Request for Further Information (RFI) detailed by ACP in their correspondence dated 10 April 2025. Specifically, this report was prepared to provide a response to the following request (listed as item 4 in Schedule- Further Information Request):

> *"The applicant is requested to update the EIAR to include an assessment of impacts (both positive and negative) on relevant ecosystem functions and services and include mitigation measures as appropriate. The applicant is also requested to submit a synopsis report of the relevant impacts on ecosystem functions and services. In identifying relevant ecosystem services for assessment, including those services classified as provisioning, regulation & maintenance and cultural services, the applicant is advised to consider the full range of ecosystem services set out in the report 'Valuing Ireland's Blue Ecosystem Services' (SEMRU of NUI Galway, 2018), as referenced in the NMPF. The report should also consider the need for an adaptive management framework for ongoing assessment and should include provision for appropriate monitoring of any mitigation measures and operational management strategies, as well as provision for decommissioning."*

This report considers how the potential impacts of the Project can affect relevant ecosystem functions and services (positively or negatively), as defined by the report 'Valuing Ireland's Blue Ecosystem Services' (Norton *et al*., 2018 of SEMRU NUI Galway) and the National Marine Planning Framework (NMPF) (Government of Ireland, 2020). It is informed by the information on the marine ecosystems and relevant assessments presented in the EIAR (RPS, 2024), NIS (RPS, 2024), EIAR Addendum (RPS, 2025) and NIS Addendum (RPS, 2025).

This report comprises the following sections to respond the information request:

1. Introduction;
2. Project overview;
3. Methodology for assessment;
4. Ecosystem services – screening results;
5. Ecosystem services – impact assessment;
6. Mitigation and adaptive management; and
7. Conclusion

1.2 Definition of ecosystem services

The International Finance Corporation (IFC) Performance Standard 6 (PS6) defines ecosystem services as *"the benefits that people, including businesses, obtain from ecosystems"* (IFC, 2012), while the World Resources Institute (WRI) and Common International Classification of Ecosystem Services (CICES) define ecosystem services as the *"contributions that ecosystems make to human well-being"* (WRI, 2013; Haines-Young, 2023). Essentially, ecosystem services are the ranges of services and benefits the functions of ecosystems provide to society either directly or indirectly.

The National Marine Planning Framework (NMPF) makes reference to the report *'Valuing Ireland's Blue Ecosystem Services'* (Norton *et al*., 2018). The report utilises the CICES ecosystem services classification system to identify the most significant ecosystem services generated in Ireland's coastal and marine waters.

The report details Ireland's marine ecosystem services as follows:

- **Provisioning ecosystem services** – Tangible goods, often with a direct connection between the ecosystem and the provision of these ecosystem services. These include offshore capture fisheries,

inshore capture fisheries, aquaculture (fish and shellfish based systems), algae / seaweed harvesting, genetic materials, water for non-drinking purposes (e.g. seawater used in cooling for power plants).

- **Regulating and maintenance ecosystem services** – Services that regulate the world around us and often are consumed indirectly. These include waste services (e.g. wastewater treatment), coastal defence (e.g. storm and flood protection), lifecycle and habitat services (e.g. nursery grounds / marine protected areas), pest and disease control (includes management of invasive species), climate regulation (includes climate change mitigation measures such as carbon sequestration).
- **Cultural services** – Psychical, psychological and spiritual benefits that humans obtain from contact with nature. These include recreational services, scientific and educational services, marine heritage / culture / entertainment, aesthetic services, spiritual and emblematic values, non-use values.
- **Supporting ecosystem services** – Services which uphold and enable the maintenance and delivery of the other ecosystem service categories (e.g. the effect of nutrient cycling in marine systems on fish stocks, influencing commercial fisheries and recreational fisheries).

To avoid double counting, supporting services tend not to be included in ecosystem value assessments (Norton *et al*., 2018). Therefore, supporting ecosystem services have not been considered further in this report as the assessments carried out for provisioning, regulating and maintenance and cultural services capture the breadth of ecosystem services relevant to the Project.

Ecosystem services mainly refer to biotic (living) features of the marine environment (i.e. species and habitats) rather than abiotic (non-living) features. The use of the sea for other purposes (e.g. transportation of goods) are not considered ecosystem services. Abiotic marine services have been considered in the following EIAR chapters (and Addenda):

- Chapter 13: Shipping and Navigation; and
- Chapter 14: Aviation, Military and Communications.

Details of the marine ecosystem services relevant to Ireland (based on Norton *et al*., 2018) are presented in Table 1-1 below.

Table 1-1: Types of marine ecosystem services in Ireland.

Type of ecosystem service	Definition (based on Norton *et al.*, 2018)
Provisioning ecosystem services	
Offshore capture fisheries	Offshore capture fisheries are those landed from waters within the Irish Exclusive Economic Zone (EEZ) for vessels greater than 15 m.
Inshore capture fisheries	The inshore capture fisheries are based in the territorial waters that extend out to 12 nautical miles from the coast and are mainly composed of boats less than 15 m in length.
Aquaculture (fish and shellfish based systems)	Aquaculture (i.e. the rearing of aquatic animals or the cultivation of aquatic plants for food) is an important sector particularly in rural areas along the Irish western seaboard. Most of the aquaculture outputs produced relate to salmon, oyster and mussel farming and are mainly based along the western coast of Ireland.
Algae / seaweed harvesting	Algae / seaweed harvesting is one of the main types of provisioning services relating to aquaculture and plants in Ireland. Seaweeds, also known as macro-algae, are plant-like marine species found attached to hard substrates along the coast.
Genetic materials	The rich biodiversity within the marine and coastal zones provides a rich hunting ground for genetic material. This genetic material has a variety of uses. These include the exploitation of genes related to certain traits to genetically modify organisms that can facilitate the improvement of farmed species through breeding for improved yield, increased resistance to disease and adaptation to change in environmental conditions.
Water for non-drinking purposes (e.g. seawater used in cooling for power plants)	The most significant type of non-drinking use for marine water identified in Irish coastal, marine and estuarine ecosystems was the use of water for cooling in electricity generating stations in a number of estuaries around Ireland.
Regulating and maintenance ecosystem services	
Waste services (e.g. wastewater treatment)	This ecosystem service involves the treatment of wastewater and its return to the hydrological cycle, through storage or processing of waste material through physical or biochemical means. For Irish coastal and marine ecosystem services the main waste treatment service provided is for wastewater emitted from human sources. The main pollutants found in wastewater are nitrogen (N) and phosphorous (P) and substances that cause or result in an oxygen demand known as biochemical oxygen demand (BOD).
Coastal defence (e.g. storm and flood protection)	The ecosystem service of coastal defence is the preventative or moderating effect that certain ecosystems can have on infrequent natural hazards thus reducing the level of harm imposed on life, health or property. For coastal areas these natural hazards often take the form of storms, storm surges and/or flooding. Many ecosystems can act as physical barriers to dampen or reduce the energy hitting the terrestrial portion of the seashore. Such ecosystems include reefs, seagrasses, kelp beds/forests, dunes and saltmarshes.
Lifecycle and habitat services (e.g. nursery grounds / marine protected areas)	Lifecycle and habitat services add to the value of commercial stocks as well as adding to the conservation value to society of all marine life. Usage of certain habitats is temporally defined and only support a species for a specific stage of their lifecycle (e.g. as breeding or spawning areas for adults or as nursery areas for juvenile animals).
Pest and disease control (includes management of invasive species)	Pests, diseases and invasive species cause economic loss through damage to crops, health and biodiversity. Predators and parasitoids can provide control of these invasives and maintain a balance in the ecosystem.
Climate regulation (includes climate change mitigation measures such as carbon sequestration)	By removing greenhouse gases (e.g. carbon dioxide) from the atmosphere, marine ecosystems can help to slow down or mitigate the effects of climate change.
Cultural services	
Recreational services	Recreation is one of the more visible cultural ecosystem services provided by the marine and coastal environment where people enjoy undertaking a variety of leisure activities both on the shoreline and in the sea.
Scientific and educational services	Marine scientific research and education in Ireland is reflected in the many marine research laboratories and dedicated building facilities available across state agencies and Irish third level institutions.

Type of ecosystem service	Definition (based on Norton *et al.*, 2018)
Marine heritage, culture and entertainment	Marine and coastal ecosystems provide inspiration for culture, art and design (including film and literature). While these cultural goods will have values attributed to them on an individual basis, apportioning the value attributable to the ecosystem itself is very difficult and is thus still an ecosystem service which needs further research.
Aesthetic services	The value of this ecosystem service lies in the beauty of the landscape generated by the ecosystem for those viewing it. Examples of the added value of a beautiful view is found in hotel rooms with a sea view, which often command a premium or the additional price paid for a house because of the scenic view it commands of an estuary or the sea.
Spiritual and emblematic values	A connection with marine ecosystems can hold spiritual value for individuals and society. The SEMRU report cites a study (Cooper, 2009) which highlights the value held by indigenous people and the value held by individuals and societies who seek inspiration from nature in their lives. As in the case of maritime culture and entertainment values, apportioning the value attributable to the ecosystem itself is difficult. It was also noted that emblems connected with the sea and ships are used on county crests and as logos.
Non-use values	Non-use values are values that are not associated with actual use, or even the option to use a good or service. They include existence and bequest values. Existence values refer to the value associated with the knowledge or satisfaction that the resource exists or 'is there'. In this case, there are individuals who do not currently make use of the goods and services of an ecosystem but wish to see them preserved 'in their own right'.

1.3 Legislative context

1.3.1 European

Marine Strategy Framework Directive

The Marine Strategy Framework Directive (MSFD) was adopted in July 2008. The overarching goal of the Directive is to achieve 'Good Environmental Status' (GES) by 2020 across Europe's marine environment. To this end, Annex I of the Directive identifies 11 high level qualitative descriptors for determining GES. These include: biological diversity, non-indigenous species, elements of marine food webs, sea floor integrity, alteration of hydrographical conditions and contaminants (European Union, 2008).

Regarding marine ecosystems, the MSFD states the following:

"Marine strategies shall apply an ecosystem-based approach to the management of human activities, ensuring that the collective pressure of such activities is kept within levels compatible with the achievement of good environmental status and that the capacity of marine ecosystems to respond to human-induced changes is not compromised, while enabling the sustainable use of marine goods and services by present and future generations."

The effects of the construction, operational and maintenance, and decommissioning phases of the Project on marine environmental receptors have been assessed in the EIAR (see volume 2B) and the Addenda (prepared in response to the further information request). Chapter 7: Marine Processes (EIAR volume 2B) provides an impact assessment which demonstrates that the Project will not impact on the GES under the MSFD.

Nature Restoration Law

The Regulation on Nature Restoration (Nature Restoration Law) was approved by the EU Environment Council in June 2024 and came into effect in August 2024. This legislation aims to restore degraded ecosystems across the EU, particularly those with the most potential to capture and store carbon and to prevent and reduce the impact of natural disasters.

Ireland's 4th National Biodiversity Action Plan 2023–2030 (NBAP) commits to putting a National Restoration Plan in place by 2026 to contribute to the ambition of the EU Biodiversity Strategy 2030 and global

restoration targets. With regard to the Nature Restoration Law, the NBAP stated the following at the time of its publication in January 2024:

> *"The proposed EU Nature Restoration Regulation will set legally binding targets to restore degraded ecosystems, in particular those with the most potential to capture and store carbon, and to prevent and reduce the impact of natural disasters. Subject to finalisation of the Regulation, it is expected that all Member States will be required to produce a National Restoration Plan within two years of adoption".*

The NBAP will be updated by 2027 to include Ireland's National Restoration Plan.

The publication of the Nature Restoration Law does not make any changes to the content of the EIAR. The Applicant considers the assessment presented in the EIAR to still be robust and in line with best practice.

A consideration of the extent of marine habitats that will be lost and/or adversely affected by the Project is presented in the updated Appendix A Addendum: NMPF Compliance Report to the Planning Report Addendum (in response to RFI 3.)

1.4 Policy context

1.4.1 National Marine Planning Framework

The National Marine Planning Framework (NMPF) was formally established by the Government on 20 May 2021. It contains overarching marine planning policies that are applicable to all proposals in Ireland's extensive maritime area which comprises an area of approximately 490,000 km^2. Public bodies are legally obliged to secure the objectives of the NMPF.

The Planning Report submitted as part of the planning application provided an overview of how the Project complies with the NMPF policies considered particularly relevant at the time of submission of the planning application (see Planning Report; Appendix A Addendum: National Marine Planning Framework (NMPF) – Compliance Report). Following the correspondence received from An Bord Pleanála dated 10 April 2025 containing the RFI, a revised assessment of the NMPF policies, particularly Biodiversity Policy 2, Seafloor Integrity Policies 1, 2 and 3, Fisheries Policy 5 and Underwater Noise Policy 1 has been completed (in the updated Appendix A Addendum: NMPF Compliance Report to the Planning Report Addendum (in response to RFI 3). Overall, the Project is consistent with the objectives of the NMPF in that it directly contributes to renewable energy generation and thereby addresses climate change policy, provides employment, allows other land marine uses continue, includes measures to mitigate visual impact and delivers enhancements to the transmission network.

1.4.2 National Biodiversity Action Plan (2023-2030)

Ireland's 4th National Biodiversity Plan (2023-2030) (NBAP) sets out Ireland's vision, objectives and outcomes for biodiversity in Ireland. Of particular relevance to ecosystem services is "Outcome 2D: Biodiversity and ecosystem services in the marine and freshwater environment are conserved and restored", noting that:

> *"Biodiversity regulates climate and protects us from extreme weather and other effects of climate change. Climate change is a growing driver of biodiversity loss. Projections are predicted to change the distribution of species. Degraded habitats are less resilient to the impacts of climate change and they are less able to provide the ecosystem services humans need to be resilient to climate change."*

2 PROJECT OVERVIEW

2.1 Project description

The Project will be located off the coast of County Louth (approximately 22 km east of Dundalk town centre and 18 km east of Blackrock) and will have a maximum export capacity (MEC) of 375 MW, consisting of 25 offshore wind turbine generators (WTGs).

The closest wind turbine will be approximately 6 km from the closest shore on the Cooley Peninsula. The offshore cable corridor will extend approximately 11 km southwest from the offshore wind farm area to a landfall location south of Dunany Point.

The activities and parameters associated with the Project that could result in impacts to ecosystem functions and services are as follows:

- **Construction phase:**
  - Installation of 26 monopiles (WTGs and OSS) with two jack-up events per WTG and four jack-up events for the OSS.
  - Average maximum hammer energy of 2,500 kJ (maximum of up to 3,500 kJ).
  - Installation of 41 km inter-array cables and 16 km offshore cable with seabed disturbance width of 10 m.
  - Installation of one cable in one trench between HWM and LWM with dimensions 5 m x 800 m x 3 m (width x length x depth), with 15 m working area either side of trench, leading to temporary intertidal habitat loss/disturbance.
  - Vessel grounding and vehicle movements across the foreshore (within the 30 m wide working area).
  - Site preparation activities requiring sand wave clearance for 10% of inter-array cables and 10% of the offshore cable.
  - Installation vessels operating within the offshore wind farm and offshore cable corridor areas (475 vessel round trips during the construction phase).
  - Presence of Marine Safety Zones of 500 m in radius around structures undergoing installation; and advisory clearance distances of 500 m in radius around cable installation vessels.
- **Operational phase:**
  - Presence of 26 (i.e. 25 x WTG + 1 x OSS) monopile foundations with a diameter of 9.6 m and associated scour protection and presence of cable protection associated with 41 km of AC inter-array cables (66 kV) and 16 km of offshore cable (220 kV). *Note both habitat loss and habitat creation associated with presence of offshore infrastructure.*
  - Component replacement activities using jack-up vessel associated with 25 WTGs (average of two major component replacements per year).
  - Inter-array cables: seven repair events and seven reburial events over the lifetime of the Project.
  - Offshore cable: three subtidal repair events and three subtidal reburial events over the lifetime of the Project.
  - Routine geophysical surveys of wind turbine foundations, inter-array cables and offshore cable.
  - 352 vessel round trips per year during the operational and maintenance phase.
  - Presence of safety zones of 500 m in radius around structures undergoing maintenance and advisory clearance distances of 500 m in radius around cable repair/reburial vessels.
- **Decommissioning phase:**
  - Parameters are assumed to be the same as for the construction phase however seabed preparation and seabed clearance (prior to foundation installation) will not take place during the decommissioning phase.
  - Removal of one cable at intertidal landfall location.

- Cutting and removal of monopile foundations (WTGs and OSS) to approximately 2 m below seabed.
- Removal of inter-array and offshore cables.
- 475 vessel round trips during the decommissioning phase.
- Presence of safety zones of 500 m in radius around structures undergoing decommissioning; and advisory clearance distances of 500 m in radius around cable vessels.

These parameters have been used in order to screen relevant ecosystem functions and services for assessment (see section 4 of this report).

2.2 Ecosystems associated with offshore wind farms

The IUCN Global Ecosystem Typology (GET) is a comprehensive classification framework for Earth's ecosystems that integrates their functional and compositional features. As an accepted international standard under several United Nations Conventions, this typology is helping to identify the ecosystems that are most critical for biodiversity conservation, research, management and human wellbeing into the future (IUCN, 2025).

The IUCN GET provides an internationally recognised framework for describing marine and coastal ecosystems. An overview of the ecosystems relevant to offshore wind farms are summarised in Table 2-1, along with their IUCN GET codes and associated key ecosystem functions and services.

Table 2-1: Ecosystems typically associated with offshore wind farms.

Ecosystem	IUCN GET code(s)	Key ecosystem functions and services
Benthic habitats (soft sediments, rocky reefs, seabed ecosystems, subtidal sand and mud plains)	• M1.6 Subtidal rocky reefs; • M1.7 Subtidal sand beds; and • M1.8 Subtidal mud plains.	• Supporting: Nutrient cycling, carbon sequestration and storage, habitat provision for benthic invertebrates and demersal fish; and • Provisioning: Fish and shellfish resources, sediment stability.
Pelagic ocean waters	• M2.1 Epipelagic ocean waters	• Supporting: Primary production, prey for higher trophic levels; • Regulating: Oxygen generation, biogeochemical cycling, carbon sequestration and storage; • Provisioning: Fisheries; and • Cultural: Recreation and scientific value.
Anthropogenic marine ecosystems	• M4.1 Submerged artificial structures.	• Supporting: Nutrient cycling, carbon sequestration and storage, habitat provision for benthic invertebrates, demersal fish; and • Provisioning: Fish and shellfish resources, sediment stability.
Coastal / shoreline ecosystems (dunes, saltmarshes, intertidal flats at landfall points)	• MT1.1 Rocky shorelines; • MT1.2 Muddy shorelines; • MT1.3 Sandy shorelines; • MT1.4 Boulder and cobble shores; and • MFT1.3 Coastal saltmarshes and reedbeds.	• Supporting: primary production; prey for higher trophic levels; • Regulating: oxygen generation, biogeochemical cycling, carbon sequestration and storage. • Provisioning: Fisheries. • Cultural: Recreation and scientific value.

3 METHODOLOGY FOR ASSESSMENT

3.1 Overview

Ecosystem functions refer to the biological, physical and geochemical processes that occur naturally within ecosystems (e.g. primary production, nutrient cycling). Ecosystem services refer to the benefits that humans obtain from ecosystems, which often arise from ecosystem functions (e.g. food, waste services, recreation). Ireland's marine ecosystem services are defined in the report *'Valuing Ireland's Blue Ecosystem Services'* (Norton *et al*., 2018), which is described further in section 3.2.1 below. All associated ecosystem services are included in Table 4-1.

This ecosystem service and functions assessment presented in this report includes two phases:

- **Screening** – The initial consideration of ecosystem services (outlined by Norton *et al*. (2018) and presented in Table 1-1 of this report) that have potential relevance to the Project and identification of those to be screened in for assessment.
- **Impact assessment** – Ecosystem services screened in for the assessment were then considered against potential impacts arising from the Project (as outlined in the EIAR). The potential impacts scoped into the relevant EIAR chapters were used to inform the potential for the Project to affect the ecosystem service.

3.2 Relevant guidance

The following guidance was considered in order to complete this assessment:

- Ecosystem services assessment: How to do one in practice (The Institution of Environmental Sciences (IES), 2013);
- Guidance Note 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources (International Finance Corporation (IFC)); and
- Weaving Ecosystem Services Into Impact Assessment: A Step-By-Step Method (World Resources Institute (WRI), 2013).

3.2.1 Valuing Ireland's Blue Ecosystem Services

The NMPF makes reference to the report *'Valuing Ireland's Blue Ecosystem Services'* (Norton *et al*., 2018). The report utilises an ecosystem services classification system called the 'Common International Classification of Ecosystem Goods and Services' (CICES) to identify the most significant ecosystem services generated in Ireland's coastal and marine waters.

This report was published by the Socio-Economic Marine Research Unit (SEMRU) at the Whitaker Institute of NUI Galway. The main research focus of the unit involves examining the economic utility of the marine environment (e.g. transportation, recreation) and the ecological value (e.g. fisheries, aquaculture) derived from the productivity of associated ecosystems.

The main aims of the report are as follows:

- Provide an overview of the marine ecosystem services in Ireland;
- Estimate the value to society of these ecosystem services;
- Provide data that can be used in management and planning decisions related to human activities within the marine environment;
- Provide information on the relative importance and potential economic trade-offs of existing marine uses as reflected in their social and economic values; and
- Identify knowledge gaps in the valuation of marine ecosystem services.

According to Norton *et al*. (2018), *'marine ecosystem services are provided by the processes, functions and structure of the marine environment that directly or indirectly contribute to societal welfare, health and economic activities'.*

The data presented in *'Valuing Ireland's Blue Ecosystem Services'* has been used to define the Irish marine ecosystem services of relevance to the Project (see Table 4-1).

3.3 Ecosystem services assessment – screening

3.3.1 Identification of potentially relevant ecosystem services

In order to identify potentially relevant ecosystem services, reference was made to the report *'Valuing Ireland's Blue Ecosystem Services*' (Norton *et al*., 2018), as directed by ACP, as follows:

> *"In identifying relevant ecosystem services for assessment, including those services classified as provisioning, regulation & maintenance and cultural services, the applicant is advised to consider the full range of ecosystem services set out in the report 'Valuing Ireland's Blue Ecosystem Services' (SEMRU of NUI Galway, 2018), as referenced in the NMPF."*

Each ecosystem service as outlined by Norton *et al*. (2018) was screened for relevance to the Project. If screened in, the ecosystem service was then assigned to one or more specialist topic, as relevant. Where an ecosystem service has been screened out of the assessment, justification has been provided.

The potentially relevant ecosystem services were identified through a consideration of the ecosystems, along with a review of the baseline environment presented in the following EIAR chapters and Addenda (where relevant):

- Chapter 7: Marine Processes;
- Chapter 8: Benthic Subtidal and Intertidal Ecology;
- Chapter 9: Fish and Shellfish Ecology;
- Chapter 10: Marine Mammals and Megafauna;
- Chapter 11: Offshore Ornithology;
- Chapter 12: Commercial Fisheries;
- Chapter 15: Marine Archaeology;
- Chapter 16: Infrastructure, Marine Recreation and Other Users;
- Chapter 17: Climate;
- Chapter 26: Cultural Heritage; and
- Chapter 27: Seascape, Landscape and Visual Amenity.

3.4 Ecosystem services assessment – impact assessment

Ecosystem services screened in for the assessment were considered against potential impacts arising from the Project (as outlined in the EIAR and EIAR Addenda). The potential impacts scoped into the relevant EIAR chapters were then used to inform the potential for the project to impact the ecosystem service(s) associated with the topic. The impact assessments in the EIAR were used to inform the overall significance of effect on the ecosystem service. Any mitigation measures proposed in the EIAR to reduce impacts on the ecosystem service and topic being assessed were also outlined.

3.5 Limitations

This qualitative assessment has been informed by the information presented in the EIAR in order to provide an assessment of potential impacts to marine ecosystem functions and services resulting from the Project. The conclusions presented in this report are based on professional expertise utilised in the preparation of the relevant EIAR chapters.

At the time of writing, there are no official guidelines in Ireland for the preparation of an assessment of impacts to ecosystem functions and services. As such, the approach taken in this report has been informed by relevant international guidance and best practice (as outlined in section 3.2).

4 ECOSYSTEM SERVICES – SCREENING

A screening exercise was conducted to identify the potential Project impacts and dependencies on ecosystem services.

Based on the results of the screening exercise, any ecosystem services which are identified as priority ecosystem services in the Project area, in line with the definitions prescribed by IFC Performance Standard 6, will be subject to a more in-depth ecosystem services assessment (see section 5).

Table 4-1: Ecosystem services screening results.

Ecosystem services	Screening determination	Justification	Relevant ecosystems	Relevant EIAR chapter(s)(incl. Addenda)
Provisioning ecosystem services				
Offshore capture fisheries	Screened in	Relevant to Project – potential impacts to fisheries due to displacement of fishing activity, presence of offshore infrastructure and potential changes to fish activity.	• M1.6 Subtidal rocky reefs; • M1.7 Subtidal sand beds; • M1.8 Subtidal mud plains; and • M2.1 Epipelagic ocean waters.	• Chapter 12: Commercial Fisheries
Inshore capture fisheries	Screened in	Relevant to Project – as above.	• M1.6 Subtidal rocky reefs; • M1.7 Subtidal sand beds; • M1.8 Subtidal mud plains; and • M2.1 Epipelagic ocean waters.	• Chapter 12: Commercial Fisheries
Aquaculture	Screened out	Not relevant – closest licensed aquaculture sites are in Carlingford Lough, the closest of which is approximately 7 km from the Project. Norton *et al*. (2018) notes that most of Ireland's aquaculture is based on the West coast.	N/A	N/A
Algae/ Seaweed harvesting	Screened out	Not relevant – algae/seaweed harvesting in Ireland predominantly takes place along the west coast (Marine Institute, 2022). There are no algae/seaweed harvesting sites within Co. Louth.	N/A	N/A
Genetic materials	Screened in	Relevant to Project – as there is potential to impact on marine biodiversity receptors thereby potentially reducing populations of species.	• M1.6 Subtidal rocky reefs; • M1.7 Subtidal sand beds; • M1.8 Subtidal mud plains; • M2.1 Epipelagic ocean waters; and • M4.1 Submerged artificial structures.	• Chapter 8: Benthic Subtidal and Intertidal Ecology; • Chapter 9: Fish and Shellfish Ecology; • Chapter 10: Marine Mammals and Megafauna; and • Chapter 11: Offshore Ornithology
Water for non-drinking purposes	Screened out	Not relevant – Norton *et al*. (2018) (page 30) lists the six power plants that abstract water from estuaries, none of which	N/A	N/A

Ecosystem services	Screening determination	Justification	Relevant ecosystems	Relevant EIAR chapter(s)(incl. Addenda)
		are located near the Project. There are also no other marine water abstractions in close proximity to the Project.		
Regulating and maintenance ecosystem services				
Waste services	Screened out	Not relevant to Project – construction / decommissioning activities will lead to increased suspended sediments which may impact treatment of waste by the sea. However, this will not impact the treatment of wastewater and its return to the hydrological cycle by marine ecosystems. Any impacts will also be limited during the operational phase.	N/A	N/A
Coastal defence	Screened out	Not relevant to Project. The potential for impacts to the provision of coastal defence ecosystem functions and services in the vicinity of the Project is scoped out on the basis that there is no net loss of coastal habitat. A coastal processes assessment undertaken in chapter 7: Marine Processes (EIAR, volume 2B) has determined no significant impact to coastal features from the Project. All works at the landfall location are temporary, and the habitats located at the landfall are limited to a mix of mobile rocky habitat and intertidal sand (see chapter 8: Benthic Subtidal and Intertidal Ecology of the EIAR), a lower order of coastal defence habitat.	N/A	N/A
Lifecycle and habitat services	Screened in	Relevant to Project – potential impacts to species and habitats.	• M1.6 Subtidal rocky reefs; • M1.7 Subtidal sand beds; • M1.8 Subtidal mud plains; • M2.1 Epipelagic ocean waters; and • M4.1 Submerged artificial structures.	• Chapter 8: Benthic Subtidal and Intertidal Ecology; • Chapter 9: Fish and Shellfish Ecology; • Chapter 10: Marine Mammals and Megafauna; and • Chapter 11: Offshore Ornithology.
Pest and disease control	Screened in	Relevant to Project – potential impacts to predators/parasitoids that provide this service, along with an increased risk of invasive species due to vessel movements.	• M1.6 Subtidal rocky reefs; • M1.7 Subtidal sand beds; • M1.8 Subtidal mud plains; • M2.1 Epipelagic ocean waters; and	• Chapter 8: Benthic Subtidal and Intertidal Ecology.

Ecosystem services	Screening determination	Justification	Relevant ecosystems	Relevant EIAR chapter(s)(incl. Addenda)
			• M4.1 Submerged artificial structures.	
Climate regulation	Screened in	Relevant to Project – potential impacts to marine processes, along with beneficial effects in terms of carbon offsets / emissions reduction.	• M2.1 Epipelagic ocean waters.	• Chapter 7: Marine Processes; and • Chapter 17: Climate
Cultural ecosystem services				
Recreational services	Screened in	Relevant to Project – potential impacts to recreation as a result of construction and decommissioning activities and presence of offshore infrastructure.	• M2.1 Epipelagic ocean waters.	• Chapter 16: Infrastructure, Marine Recreation and Other Users; and • Chapter 27: Seascape, Landscape and Visual Amenity
Scientific and educational services	Screened out	Not relevant to Project – there will be no potential impacts to scientific / educational services. Additionally, the information available from the Project assessments and continued monitoring can be used to inform research.	N/A	N/A
Marine heritage, culture and entertainment	Screened in	Relevant to Project – potential impacts to marine archaeology, etc. as a result of Project activities.	• M2.1 Epipelagic ocean waters; and • Coastal / shoreline areas	• Chapter 15: Marine Archaeology; and • Chapter 16: Infrastructure, Marine Recreation and Other Users
Aesthetic services	Screened in	Relevant to Project – visual impacts to seascape due to presence of offshore infrastructure.	• M2.1 Epipelagic ocean waters; and • Coastal / shoreline areas	• Chapter 27: Seascape, Landscape and Visual Amenity
Spiritual and emblematic values	Screened in	Relevant to Project – potential impacts to values due to presence of offshore infrastructure.	• M2.1 Epipelagic ocean waters; and • Coastal / shoreline areas	• Chapter 26: Cultural Heritage; and • Chapter 27: Seascape, Landscape and Visual Amenity
Non-use values	Screened out	Not relevant to Project – values associated with the knowledge or satisfaction that the resource exists or "is there" are not assessed by the Project. All other marine ecosystem services that could be impacted by the Project are assessed in this report.	N/A	N/A

5 ECOSYSTEM SERVICES – IMPACT ASSESSMENT

Ecosystem services screened in for the assessment were considered against potential impacts arising from the Project (as outlined in the EIAR and EIAR Addendum). The potential impacts scoped into the relevant EIAR chapters were then used to inform the potential for the Project to impact the ecosystem service(s) associated with the topic.

The impact assessments completed in the EIAR chapter were used to inform the overall significance of effect on the ecosystem service. Any mitigation measures proposed in the EIAR to reduce impacts on the ecosystem service and topic being assessed were also outlined.

The assessment of potential impacts to ecosystem functions and services considers the following:

- The EIAR chapters relevant to each ecosystem service;
- The relevance of the Project to each ecosystem service and the potential impacts to consider as a result of the Project (as outlined in the EIAR);
- A review of the various assessments presented in the EIAR and EIAR Addendum for the relevant chapters; and
- Proposed mitigation measures (where relevant).

The potential interactions between Project activities during the construction, operational and maintenance and decommissioning phases and the relevant ecosystem services (i.e. screened in for this assessment) are outlined in Table 5-1 below. Project activities were considered relevant to the e cosystem service if they had the potential to result in impacts to the ecosystem service and were assessed in the relevant EIAR chapter associated with the ecosystem service (as outlined in Table 4-1).

The assessment of impacts to the relevant ecosystem functions and services is presented in Table 5-1.

Table 5-1: Ecosystem Services Assessment.

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
Offshore capture fisheries			
Chapter 12: Commercial Fisheries	Offshore capture fisheries are those landed from waters within the Irish Exclusive Economic Zone (EEZ) for vessels greater than 15 m. Offshore fishing grounds in the vicinity of the Project include the Irish Sea prawn grounds and areas fished by mobile bottom, mobile seine, mobile other and passive gear types. Automatic Identification System (AIS) data for 2019 (presented in volume 2B, appendix 13-1: Navigation Risk Assessment of the EIAR), suggest that vessels are steaming to and from offshore grounds, across the offshore wind farm area. AIS data for 2022 shows that the fishing activity in the immediate vicinity of the offshore wind farm area is significantly less than for the same period in 2019. As for the 2019 date, most fishing activity is located to the south of the offshore wind farm area with the transits through the offshore wind farm area likely to be between ports or between a port and fishing grounds (see volume 2B, appendix 13-1: Navigation Risk Assessment of the EIAR). 2024 AIS data presented in appendix 13-3: Response to Department of Transport (MSO) for fishing vessel tracks is similar to 2022 data. In order to maintain the provision of offshore capture fisheries as an ecosystem service, the Project must avoid, minimise or mitigate harm to commercial fisheries.	The significance of the effects on all commercial fisheries receptors as a result of the Project across the construction, operational and maintenance and decommissioning phases are predicted to range from **imperceptible** to **slight adverse**, which is not considered significant in EIA terms. As there are no significant effects on the specific commercial fisheries receptors predicted, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to offshore capture fisheries, and accordingly no impediment to the relevant objectives of the NMPF being met.	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to commercial fisheries receptors as a result of the Project. As a result of this, it has also been concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to offshore capture fisheries. It is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 12-7 of the EIAR (see volume 2B, chapter 12: Commercial Fisheries).

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
Inshore capture fisheries			
Chapter 12: Commercial Fisheries	The inshore capture fisheries are based in the territorial waters that extend out to 12 nautical miles from the coast and are mainly composed of boats less than 15 m in length. Inshore fishing grounds overlapping with the Project's offshore wind farm area and offshore cable corridor include a bivalve mollusc production area for cockles and razor clams (the “Dundalk Bay production area”), trammel and gill net fishing for mixed demersal species, dredge fishing for razor clam, scallops and mussels, and potting for shrimp, lobster, crab and whelk. No periwinkle grounds overlap with either the offshore wind farm area or offshore cable corridor, however four periwinkle harvesting sites can be found within the Commercial Fisheries Study Area (see volume 2B, chapter 12: Commercial Fisheries of the EIAR). Due to the high density of shellfish found within Dundalk Bay, the area is subject to a fisheries management plan. In order to maintain the provision of inshore capture fisheries as an ecosystem service, the Project must avoid, minimise or mitigate impacts to commercial fisheries.	The significance of the effect for all commercial fisheries receptors as a result of the Project are predicted to range from **imperceptible** to **slight adverse**, which is not considered significant in EIA terms. As there are no significant effects on the specific commercial fisheries receptors predicted, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to offshore capture fisheries, and accordingly no impediment to the relevant objectives of the NMPF being met.	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to commercial fisheries receptors as a result of the Project. As a result of this, it has also been concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to inshore capture fisheries. It is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 12-7 of the EIAR (see volume 2B, chapter 12: Commercial Fisheries).
Genetic materials			
Chapter 8: Benthic Subtidal and Intertidal Ecology	The biodiversity within marine and coastal ecosystems provides a rich hunting ground for genetic material which has a variety of uses. As outlined in EIAR volume 2B, a number of Important Ecological Features (IEFs) were	The significance of the effect for all benthic subtidal and intertidal ecology receptors as a result of the Project are predicted to range from **imperceptible** to **slight**, which is not considered significant in EIA terms.	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to benthic subtidal and intertidal ecology receptors

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
	identified within the vicinity of the Project, as follows: • **Chapter 8: Benthic Subtidal and Intertidal Ecology** – A number of important habitats including subtidal sandy mud sediment (which supports a variety of brittle stars and bivalves), subtidal coarse sediments (which supported a variety of marine worms and bivalves), subtidal infralittoral rock and Annex I estuaries, Annex I Mudflats and sandflats not covered by seawater at low tide.	As there are no predicted significant effects on the specific benthic subtidal and intertidal ecology receptors, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to genetic materials in this regard, and accordingly no impediment to the relevant objectives of the NMPF being met.	as a result of the Project. It is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 8-12 of the EIAR (see volume 2B, chapter 8: Benthic Subtidal and Intertidal Ecology).
Chapter 9: Fish and Shellfish Ecology	• **Chapter 9: Fish and Shellfish Ecology** – A variety of species of demersal fish (including benthic and benthopelagic fish), pelagic fish, migratory fish, elasmobranchs and shellfish species (including crustaceans and molluscs). • **Chapter 10: Marine Mammals and Megafauna** – A variety of species including harbour porpoise, bottlenose dolphin, common dolphin, minke whale, grey seal, harbour seal, basking shark and leatherback turtle (see Table 10-10 of volume 2B, chapter 10: Marine Mammals and Megafauna). • **Chapter 11: Offshore Ornithology** – A variety of species based on biodiversity importance, recognised through	The significance of the effect for all fish and shellfish ecology receptors as a result of the Project are predicted to range from **imperceptible adverse** to **slight adverse**, which is not considered significant in EIA terms. As there are no predicted significant effects on the specific fish and shellfish ecology receptors, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to genetic materials in this regard, and accordingly no impediment to the relevant objectives of the NMPF being met.	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to fish and shellfish ecology receptors as a result of the Project. It is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 9-10 of the EIAR (see volume 2B, chapter 9: Fish and Shellfish Ecology) and further measures are outlined in chapter 9 Addendum: Fish and Shellfish (see section 9.10.8) in volume 2B Addendum).

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
Chapter 10: Marine Mammals and Megafauna	international or national legislation or through local, regional or national conservation plans, and on assessment of value according to the functional role of the species. The desktop study and site-specific data determined the key bird species in the study area as Manx shearwater, gannet, kittiwake, guillemot, razorbill, great northern diver, common gull, great black-backed gull and herring gull with their populations varying seasonally. In order to maintain the provision of genetic materials as an ecosystem service, the Project must avoid, minimise or mitigate impacts to the diversity of marine organism populations, including benthic species, fish, shellfish, marine mammals / megafauna and seabirds.	The significance of the effect for all marine mammals and megafauna receptors as a result of the Project are predicted to range from **imperceptible** to **slight adverse**, which is not considered significant in EIA terms. As there are no predicted significant effects on the specific marine mammals and megafauna receptors, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to genetic materials in this regard, and accordingly no impediment to the relevant objectives of the NMPF being met.	As part of the Project's design process, a number of measures have been proposed to reduce the potential for impacts on marine mammals and megafauna. These are outlined in Table 10-12 of the EIAR (see volume 2B, chapter 10: Marine Mammals and Megafauna). Additionally, mitigation using an Acoustic Deterrent Device (ADD) is proposed to minimise impacts arising from injury to marine megafauna from underwater noise during pile-driving by deterring animals to move beyond the predicted injury zone (outlined in section 10.10.6 of the chapter 10: Marine Mammals and Megafauna (EIAR volume 2B)). In order to minimise noise disturbance from the Project, a Piling Strategy will be implemented, alongside an Marine Megafauna Mitigation Plan (MMMP) which sets out a final project design prior to construction as well as options for potential

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
			management measures that may be implemented to ensure any effects are reduced to an acceptable level, such as phased piling (see volume 2A Addendum, appendix 5-4 Addendum: Marine Megafauna Mitigation Plan and section 10.8.7 in chapter 10 Addendum: Marine Mammals and Megafauna).
Chapter 11: Offshore Ornithology		The significance of the effect for all offshore ornithology receptors as a result of the Project are predicted to range from **imperceptible** to **slight adverse**, which is not considered significant in EIA terms. As there are no predicted significant effects on the specific offshore ornithology receptors, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to genetic materials in this regard, and accordingly no impediment to the relevant objectives of the NMPF being met.	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to offshore ornithology receptors as a result of the Project. It is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 11-14 of the EIAR (see volume 2B, chapter 11: Offshore Ornithology).

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
Lifecycle and habitat services			
Chapter 8: Benthic Subtidal and Intertidal Ecology	Lifecycle and habitat services (e.g. nursery grounds / marine protected areas) add to the value of commercial stocks as well as adding to the conservation value to society of all marine life. As outlined in volume 2B of the EIAR, marine species and habitats, including designated sites and associated features, were identified within the vicinity of the Project, as follows: **Chapter 8: Benthic Subtidal and Intertidal Ecology** - Designated sites that could be affected by the Project were identified, including Dundalk Bay SAC, Dundalk Bay Ramsar site, Carlingford Lough Ramsar site, Carlingford Lough Area of Special Scientific Interest (ASSI) and Dunany Point pNHA (see section 8.7.3 of the EIAR). A number of important habitats were identified including subtidal sandy mud sediment (which supports a variety of brittle stars and bivalves), subtidal coarse sediments (which supported a variety of marine worms and bivalves), subtidal infralittoral rock and Annex I estuaries, Annex I Mudflats and sandflats not covered by seawater at low tide.	The significance of the effect for all benthic subtidal and intertidal ecology receptors as a result of the Project are predicted to range from **imperceptible or slight adverse** to **slight**, which is not considered significant in EIA terms. As there are no predicted significant effects on the specific benthic subtidal and intertidal ecology receptors, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to lifecycle and habitat services in this regard, and accordingly no impediment to the relevant objectives of the NMPF being met.	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to benthic subtidal and intertidal ecology receptors and it is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 8-12 of the EIAR (see volume 2B, chapter 8: Benthic Subtidal and Intertidal Ecology).
Chapter 9: Fish and Shellfish Ecology	**Chapter 9: Fish and Shellfish Ecology** - Designated sites which have fish and shellfish QIs were identified and considered in the fish and shellfish assessment, including the River Boyne And River Blackwater SAC and the Slaney River Valley SAC. Additionally, fish and shellfish features of concern listed within the report *Ecological sensitivity analysis of the*	The significance of the effect for all fish and shellfish ecology receptors (including fish and shellfish features of concern such as herring) as a result of the Project are predicted to range from **imperceptible adverse** to **slight adverse**, which is not considered significant in EIA terms. As there are no predicted significant effects on the specific fish and shellfish ecology receptors, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to lifecycle and habitat services in this regard,	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to fish and shellfish ecology receptors and it is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 9-10 of the EIAR (see volume 2B, chapter 9: Fish and Shellfish Ecology) and further measures are

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
	western Irish Sea to inform future designation of Marine Protected Areas (MPAs) (DHLGH, 2023) were considered, as these MPAs have yet to be determined. These features included herring (due to the modelled presence of the herring spawning ground at Mourne) and American plaice (due to high presence within the Oriel area, but no spawning or nursery grounds). A variety of species of demersal fish (including benthic and benthopelagic fish), pelagic fish, migratory fish, elasmobranchs and shellfish species (including crustaceans and molluscs) were considered in the fish and shellfish assessment presented in the EIAR. This assessment was informed by a detailed technical report which outlined available data on the timing, location and extent of herring spawning in the vicinity of the Project (appendix 9-2: Herring Spawning – Technical Report of the EIAR).	and accordingly no impediment to the relevant objectives of the NMPF being met.	outlined in chapter 9 Addendum: Fish and Shellfish (see section 9.10.8) in volume 2B Addendum).
Chapter 10: Marine Mammals and Megafauna	**Chapter 10: Marine Mammals and Megafauna** - Eleven designated sites across Ireland and the UK were identified and considered in the marine mammals and megafauna assessment. These sites were designated for QIs including harbour seal, harbour porpoise, grey seal and bottlenose dolphin. These species were considered in the assessment, along with variety of other IEFs including common dolphin, minke whale, basking shark and leatherback turtle (see Table 10-10 of the EIAR). **Chapter 11: Offshore Ornithology -** Designated sites considered in the EIAR (see	The significance of the effect for all marine mammals and megafauna receptors as a result of the Project are predicted to range from **imperceptible** to **slight adverse**, which is not considered significant in EIA terms. As there are no predicted significant effects on the specific marine mammals and megafauna receptors, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to lifecycle and habitat services in this regard, and accordingly no impediment to the relevant objectives of the NMPF being met.	As part of the project design process, a number of measures have been proposed to reduce the potential for impacts on marine mammals and megafauna. These are outlined in Table 10-12 of the EIAR (see volume 2B, chapter 10: Marine Mammals and Megafauna). Additionally, mitigation using an Acoustic Deterrent Device (ADD) is proposed to minimise impacts arising from injury to marine megafauna from underwater noise during pile-driving by deterring animals to move beyond the predicted injury zone (outlined in section 10.10.6 of the EIAR chapter). In order to minimise noise

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
	Table 11-8) included SPAs, proposed SPAs (pSPA), candidate SPAs (cSPA), Natural Heritage Areas (NHAs), proposed NHAs (pNHA), RAMSAR sites, wildfowl sanctuaries, Areas of Special Scientific Interest (ASSIs) and Marine Nature Reserves (MNR) within the Isle of Man. A variety of species were considered in the assessment based on biodiversity importance, recognition through international or national legislation, through local, regional or national conservation plans and on assessment of value according to the functional role of the species. The desktop study and site-specific data determined the key bird species in the study area as Manx shearwater, gannet, kittiwake, guillemot, razorbill, great northern diver, common gull, great black-backed gull and herring gull with their populations varying seasonally. Considering an ecosystems-based approach, the offshore ornithology assessment considered a number of potential impacts,		disturbance from the Project, a Piling Strategy will be implemented, alongside an Marine Megafauna Mitigation Plan (MMMP) which sets out a final project design prior to construction as well as options for potential management measures that may be implemented to ensure any effects are reduced to an acceptable level, such as phased piling (see volume 2A Addendum, appendix 5-4 Addendum: Marine Megafauna Mitigation Plan and section 10.8.7 in chapter 10 Addendum: Marine Mammals and Megafauna).
Chapter 11: Offshore Ornithology	including displacement resulting from changes to prey and habitats. This assessment was informed by the results of the fish and shellfish assessment summarised above and presented in chapter 9: Fish and Shellfish Ecology of the EIAR. In order to maintain the provision of lifecycle and habitat services as an ecosystem service, the Project must avoid, minimise or mitigate impacts to the lifecycle of marine organism populations and their habitats, including benthic species and habitats, fish, shellfish, marine mammals / megafauna and seabirds.	The significance of the effect for all offshore ornithology receptors as a result of the Project are predicted to range from **imperceptible** to **slight adverse**, which is not considered significant in EIA terms. This includes indirect displacement resulting from changes to prey and habitats (as outlined in chapter 9: Fish and Shellfish and the related Addendum). As there are no predicted significant effects on the specific offshore ornithology receptors, including those that may occur through inter-related factors, it can be concluded that there will be no impediment	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to offshore ornithology receptors and it is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 11-14 of the EIAR (see

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
		to the ability of normal ecosystem functions and services to function with regards to lifecycle and habitat services in this regard, and accordingly no impediment to the relevant objectives of the NMPF being met.	volume 2B, chapter 11: Offshore Ornithology).
Pest and disease control			
Chapter 8: Benthic Subtidal and Intertidal Ecology	Pests, diseases and invasive species cause economic loss through damage to crops, health and biodiversity. Predators and parasitoids can provide control of these invasives and maintain a balance in the ecosystem. The risk of introduction and spread of invasive species during the construction, operational and maintenance and decommissioning phases of the Project was considered in the EIAR (see section 8.10.8). A Marine Invasive Non-Indigenous Species Management Plan was also included in the EIAR (see volume 2B, appendix 5-3). In order to maintain the provision of pest and disease control as an ecosystem service, the Project must avoid, minimise or mitigate risk of introduction and spread of invasive species and pests. Additionally, the Project must avoid, minimise or mitigate impacts to the overall health of marine ecosystems which provide control of pests and diseases. The overall health of marine ecosystems has been	The significance of the effect for all benthic subtidal and intertidal ecology receptors (including increased risk of introduction and spread of invasive and non-indigenous species) as a result of the Project are predicted to range from **imperceptible or slight adverse** to **slight**, which is not considered significant in EIA terms. As there are no predicted significant effects on the specific benthic subtidal and intertidal ecology receptors, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to pest and disease control in this regard, and accordingly no impediment to the relevant objectives of the NMPF being met.	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to benthic subtidal and intertidal ecology receptors and it is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 8-12 of the EIAR (see volume 2B, chapter 8: Benthic Subtidal and Intertidal Ecology).

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
	addressed under "Genetic materials" and "Lifecycle and habitat services" above.		
Climate regulation			
Chapter 7: Marine Processes	By removing greenhouse gases (e.g. carbon dioxide) from the atmosphere, marine ecosystems can help to slow down or mitigate the effects of climate change. The marine processes assessment presented in the EIAR (see volume 2B, chapter 7: Marine Processes) considered potential impacts to littoral currents and sediment transport processes, which support carbon sequestration. It also considered the impacts of increased levels of suspended sediment as a result of construction activities, as this may lead to the temporary release of carbon rather than sequestration. In addition to the physical ability of marine ecosystems to regulate climate change through carbon sequestration, the level of greenhouse gases being emitted into the atmosphere also have an effect on the function of this ecosystem service, as increased levels of greenhouse gases will put pressure on this ecosystem service. The climate assessment presented in the EIAR considered direct and indirect greenhouse gas emissions associated with the project (see volume 2C, chapter 17: Climate). It was noted in the assessment that the Project	The significance of the effect for all marine processes receptors as a result of the Project are predicted to range from **imperceptible** to **slight adverse**, which is not considered significant in EIA terms. The marine processes assessment presented in the EIAR concluded that the Project will not have a significant impact on littoral currents and sediment transport processes, which support carbon sequestration. The increase in suspended sediment as a result of construction activities may lead to the temporary release of carbon rather than sequestration, however as none of the physical processes which support the normal sequestration of carbon have been significantly impacted following the cessation of construction activities carbon sequestration is likely to return to normal levels. With this in mind, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to climate regulation, and accordingly no impediment to the relevant objectives of the NMPF being met.	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to marine processes receptors as a result of the Project. It is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 7-14 of the EIAR (see volume 2B, chapter 7: Marine Processes).

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
Chapter 17: Climate	will indirectly result in a net reduction in greenhouses gases through the development of a renewable energy generating system that will offset the existing combustion based generating systems. In order to maintain the provision of climate regulation as an ecosystem service, the Project must avoid, minimise or mitigate impacts to the ability of marine ecosystems to sequester greenhouse gases from the atmosphere. The Project must also not increase the levels of greenhouse gases emitted into the atmosphere, as this increases pressure on an ecosystem's climate regulation ability.	The significance of the effect for all climate receptors as a result of the Project are predicted to range from **moderate adverse** (via direct emissions) to **major beneficial** (via indirect reduction of emissions). The indirect effect (major beneficial significance) is considered significant in EIA terms and more than offsets the direct carbon losses reported for the construction phase. The indirect climate effects arising as a result of the Project will potentially reduce the generation of fossil fuel emissions at gas, peat and coal powered plants across the State. The Project has the potential to displace approximately 489,300 tonnes of CO_2eq from the largely carbon-based traditional energy mix in the national grid per annum (based on the 2021 grid). With this in mind, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to climate regulation, and accordingly no impediment to the relevant objectives of the NMPF being met.	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to climate receptors as a result of the Project. It is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 17-15 of the EIAR (see volume 2C, chapter 17: Climate).
Recreational services			
Chapter 16: Infrastructure, Marine Recreation and Other Users	Recreation is one of the more visible cultural ecosystem services provided by the marine and coastal environment where people enjoy undertaking a variety of leisure activities both on the shoreline and in the sea. The assessment of potential impacts to infrastructure, marine recreation and other users considered a number of recreational	The significance of the effect for all infrastructure, marine recreation and other users receptors as a result of the Project are predicted to range from **imperceptible** to **slight adverse**, which is not considered significant in EIA terms. With this in mind, it can be concluded that there will be no impediment to the ability of	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to infrastructure, marine recreation and other users receptors as a result of the Project. It is therefore considered that no

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
	activities relevant to the Project location, including recreational sailing and motor cruising , recreational fishing (including boat, shore and game angling), diving, boarding water sports, kayaking and canoeing, sea swimming and beach users. The EIAR also considered potential impacts to seascape, landscape and visual amenity at multiple viewpoints along the east coast of Ireland as a result of the Project. These impacts may also influence the function of recreational services provided by the marine environment. In order to maintain the provision of recreational services as an ecosystem service, the Project must avoid, minimise or mitigate impacts to marine recreation, including disruption to recreational activities.	normal ecosystem functions and services to function with regards to recreational services, and accordingly no impediment to the relevant objectives of the MSFD and NMPF being met.	measures over those included in the Project are required. Measures included in the Project are outlined in Table 16-6 of the EIAR (see volume 2B, chapter 16: Infrastructure, Marine Recreation and Other Users).
Chapter 27: Seascape, Landscape and Visual Amenity		The significance of the effect for all seascape, landscape and visual amenity receptors as a result of the Project are predicted to range from **minor** to **major to substantial**. With this in mind, it can be concluded that the Project may have some localised impact on recreational services as an ecosystem service where seascape, landscape and visual amenity is a consideration.	Significant effects are predicted to occur as a result of the Project on seascapes, landscape and viewpoints used as part of the visual assessment. However, no measures over those included in the Project are proposed. Measures included in the Project are outlined in Table 27-29 of the EIAR (see volume 2C, chapter 27: Seascape, Landscape and Visual Amenity).
Marine heritage, culture and entertainment			

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
Chapter 15: Marine Archaeology	Marine and coastal ecosystems provide inspiration for culture, art and design (including film and literature). As outlined in Table 1-1, the value of this ecosystem service is important in an Irish context but remains difficult to quantify. Marine heritage was assessed in the EIAR and considered assets such as prehistoric land surfaces, wreck sites and artefacts located within the offshore wind farm area and offshore cable corridor (plus a 2 km buffer) as far as the low water mark. The intertidal area (between the low water mark and high water mark) was considered in the cultural heritage assessment (see chapter 26: Cultural Heritage). Additionally, an intertidal archaeology survey was carried out in January 2025 which included a metal detector survey at low tide.	The significance of the effect on all marine archaeology receptors as a result of the Project are predicted to be **minor adverse**, which is not considered significant in EIA terms. As there are no predicted significant effects on the specific marine archaeology receptors, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to marine heritage, culture and entertainment services in this regard, and accordingly no impediment to the relevant objectives of the NMPF being met.	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to marine archaeology receptors as a result of the Project. It is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 15-9 of the EIAR (see volume 2B, chapter 15: Marine Archaeology).
Chapter 26: Cultural Heritage	The offshore elements of the Project will potentially be visible from several designated cultural heritage sites on the coast. However it was noted in the EIAR volume 2C (see section 26.7.5 of chapter 27: Cultural Heritage) (and chapter 27 Addendum: Seascape, Landscape and Visual Amenity re: further assessment on Brú na Bóinne UNESCO (volume 2C Addendum) that in most instances, there is no potential for this to have a significant impact on the cultural heritage setting, as distant seascape views are only incidental to the sites. There is some potential that the Project may result in effects on the setting of heritage assets where views of the coastal environment/seascape form a substantive contribution to the significance, understanding	The significance of the effects on cultural heritage assets in a coastal setting as a result of the Project are predicted to be as follows: • Greencastle Castle (SET 1): **Slight** significance (not significant in EIA terms). The presence of the offshore wind farm in the open sea beyond the mouth of Carlingford Lough will not impact the ability to appreciate and understand the castle's setting. • Haulbowline Lighthouse (SET 2): **Moderate** significance (significant in EIA terms). The presence of the offshore wind farm and offshore substation will change the lighthouse's aesthetic experience for visitors to the	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to cultural heritage assets in coastal settings as a result of the Project. No mitigation of setting effects is considered necessary or possible given the offshore nature of the Project and therefore the impact on the setting of the site will remain for the duration of the Project

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
	and experience of the assets. For such potential, the asset's significance must relate closely to its visual, functional or aesthetic relationship with the sea. The coastal sites considered in the assessment were Greencastle Castle (SET 1), Haulbowline Lighthouse (SET 2), and Lisnaran Fort (SET 3). In order to maintain the provision of marine heritage, culture and entertainment as an ecosystem service, the Project must avoid, minimise or mitigate impacts to marine and coastal heritage assets. Norton *et al*. suggest that this ecosystem service may be interlinked with the spiritual experience ecosystem service, which is assessed below.	coastline or users of Carlingford Lough; however it will not change the understanding or appreciation of its maritime function and relationship with the Carlingford Lough. • Lisnaran Fort (SET 3): **Slight** significance (not significant in EIA terms). The archaeological character or integrity of the site will not be compromised and there will be no significant loss of understanding about the place. • Brú na Bóinne UNESCO: the assessment (appendix 27-2: World Heritage Site Assessment (EIAR volume 2C Addendum) clearly demonstrated that a proposal will not affect the UNESCO site. At the intertidal area, the intertidal archaeology survey carried out in January 2025 observed target features throughout the survey area at the landfall, but none of the targets revealed themselves to be archaeologically significant and mostly comprised aluminium cans and lost fishing lures (see section 4.5 of appendix 15-2 Addendum: Intertidal Archaeology Survey Report). As there are no significant effects predicted at the landfall location or along	

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
		the coast at a level that would impact the understanding or appreciation of cultural heritage assets, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to marine heritage, culture and entertainment services in this regard, and accordingly no impediment to the relevant objectives of the NMPF being met.	
Aesthetic services			
Chapter 27: Seascape, Landscape and Visual Amenity	The value of this ecosystem service lies in the beauty of the landscape generated by the ecosystem for those viewing it. Examples of the added value of a beautiful view is found in hotel rooms with a sea view, which often command a premium or the additional price paid for a house because of the scenic view it commands of an estuary or the sea. The EIAR considered potential impacts to seascape, landscape and visual amenity at multiple viewpoints along the east coast of Ireland as a result of the Project. These impacts may also influence the function of recreational services provided by the marine environment. In order to maintain the provision of marine heritage, culture and entertainment as an ecosystem service, the Project must avoid, minimise or mitigate impacts to marine heritage assets.	The significance of the effect for all seascape, landscape and visual amenity receptors as a result of the Project are predicted to range from **minor** to **major to substantial**. With this in mind, it can be concluded that the Project may have some localised impact on recreational services as an ecosystem service where seascape, landscape and visual amenity is a consideration.	Significant effects are predicted to occur as a result of the Project on seascapes, landscape and viewpoints used as part of the visual assessment. However, no measures over those included in the Project are proposed. Measures included in the Project are outlined in Table 27-29 of the EIAR (see volume 2C, chapter 27: Seascape, Landscape and Visual Amenity).

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
Spiritual and emblematic values			
Chapter 15: Marine Archaeology	Marine and coastal ecosystems can hold spiritual value for individuals and society. Marine archaeology and heritage can provide benefits for associated spiritual and emblematic values (e.g. logos or county crests). As outlined in Table 1-1, the value of this ecosystem service is important in an Irish context but remains difficult to quantify. The EIAR considered potential impacts arising from the Project to marine and coastal heritage, as well as seascape, landscape and visual amenity at multiple sites along the east coast of Ireland. Norton *et al*. suggest that this ecosystem service may be interlinked with the marine heritage, culture and entertainment ecosystem service. Further detail on each of these topics has been outlined under the assessment for "marine heritage, culture and entertainment" above. In order to maintain the provision of spiritual and emblematic values as an ecosystem service, the Project must avoid, minimise or mitigate impacts to marine and coastal heritage assets and the surrounding seascape.	The significance of the effect on all marine archaeology receptors as a result of the Project are predicted to be **minor adverse**, which is not considered significant in EIA terms. As there are no predicted significant effects on the specific marine archaeology receptors, including those that may occur through inter-related factors, it can be concluded that there will be no impediment to the ability of normal ecosystem functions and services to function with regards to marine heritage, culture and entertainment services in this regard, and accordingly no impediment to the relevant objectives of the NMPF being met.	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to marine archaeology receptors as a result of the Project. It is therefore considered that no measures over those included in the Project are required. Measures included in the Project are outlined in Table 15-9 of the EIAR (see volume 2B, chapter 15: Marine Archaeology).
Chapter 26: Cultural Heritage		The significance of the effects on cultural heritage assets in a coastal setting as a result of the Project are predicted to range from **slight** to **moderate** (outlined in further detail under "marine heritage, culture and entertainment" above). As there are no significant effects predicted at the landfall location or along the coast at a level that would impact the understanding or appreciation of cultural heritage assets, including those that may occur through inter-related factors, it can be concluded that	The assessment of impacts presented in the EIAR has concluded that there will be no significant impacts to cultural heritage assets in coastal settings as a result of the Project. No mitigation of setting effects is considered necessary or possible given the offshore nature of the Project and therefore the

EIAR chapter	Relevance to the Oriel Wind Farm Project	Impact assessment summary (relevant to the marine ecosystem service)	Proposed mitigation measures (relevant to the marine ecosystem service)
		there will be no impediment to the ability of normal ecosystem functions and services to function with regards to marine heritage, culture and entertainment services in this regard, and accordingly no impediment to the relevant objectives of the NMPF being met.	impact on the setting of the site will remain for the duration of the Project
Chapter 27: Seascape, Landscape and Visual Amenity		The significance of the effect for all seascape, landscape and visual amenity receptors as a result of the Project are predicted to range from **minor** to **major to substantial**. With this in mind, it can be concluded that the Project may have some localised impact on recreational services as an ecosystem service where seascape, landscape and visual amenity is a consideration.	Significant effects are predicted to occur as a result of the Project on seascapes, landscape and viewpoints used as part of the visual assessment. However, no measures over those outlined in Table 27-29 are proposed. Measures included in the Project are outlined in Table 27-29 of the EIAR (see volume 2B, chapter 27: Seascape, Landscape and Visual Amenity).

6 MITIGATION AND ADAPTIVE MANAGEMENT

With regards to mitigation and adaptive management, the RFI states the following:

> *"The report should also consider the need for an adaptive management framework for ongoing assessment and should include provision for appropriate monitoring of any mitigation measures and operational management strategies, as well as provision for decommissioning."*

The relevant mitigation measures that apply to the ecosystem functions and services assessed in this report have been included in Table 5-1 above.

An outline Commitments Register (version 1.0) is included in the EIAR (see annex 1 of appendix 5-1: Construction Environmental Management Plan)(CEMP)(volume 2A) and appendix 5-2: Environmental Management Plan (EMP). Further commitments made as part of the response to the RFI are provided in an updated CEMP and EMP in EIAR volume 2A Addendum. These registers will be updated (on receipt of a consent) to ensure a full list of all commitments made in the EIAR, commitments made during the consent application process and any all related planning conditions are included. Responsibilities and relevant documentation for approval will also be assigned.

In response to the RFI 1.D, a Monitoring Programme has been included in appendix 5-16: Monitoring Programme. This sets out the proposed monitoring during all phases of the Project. It also includes a principle to implement adaptive management for ongoing assessment of monitoring data and implementation of adaptive mitigation.

7 CONCLUSION

This report identified ten ecosystem services considered relevant to the Project, as follows:

- Provisioning ecosystem services:
    - Offshore capture fisheries;
    - Inshore capture fisheries; and
    - Genetic materials.
- Regulating and maintenance ecosystem services:
    - Lifecycle and habitat services;
    - Pest and disease control; and
    - Climate regulation.
- Cultural ecosystem services
    - Recreational services;
    - Marine heritage, culture and entertainment;
    - Aesthetic services; and
    - Spiritual and emblematic values.

These ecosystem services spanned a variety of ecosystems associated with the Project such as benthic habitats (soft sediments, rocky reefs, seabed ecosystems, subtidal sand and mud plains), pelagic ocean waters, anthropogenic marine ecosystems (submerged structures) and coastal / shoreline ecosystems.

The assessment found that for the vast majority of ecosystem services identified, there will be no impediment to the ability of normal ecosystem functions and services to function as a result of the Project. For those ecosystem services where seascape, landscape and visual amenity is a consideration (i.e. aesthetic services and spiritual and emblematic values), it was found that the Project may have some localised impact.

Mitigation measures were proposed with regard to potential impacts to marine mammals and megafauna, which were considered in the assessment of genetic materials and lifecycle and habitat services. These mitigation measures are outlined in Table 10-12 of the EIAR (see volume 2B, chapter 10: Marine Mammals and Megafauna) and chapter 10- Addendum.

Additionally, mitigation using an Acoustic Deterrent Device (ADD) is proposed to minimise impacts arising from injury to marine megafauna from underwater noise during pile-driving by deterring animals to move beyond the predicted injury zone (outlined in section 10.10.6 of the EIAR chapter). In order to minimise noise disturbance from the Project, a Piling Strategy will be implemented, alongside a Marine Megafauna Mitigation Plan (MMMP) (see appendix 5-4 - Addendum) which sets out a final project design prior to construction as well as options for potential management measures that may be implemented to ensure any effects are reduced to an acceptable level, such as phased piling (see volume 2A, appendix 5-4: Marine Megafauna Mitigation Plan).

A number of benefits to ecosystem services would also arise from the Project, as follows:

- By generating renewable energy, the Oriel Project would contribute to reducing greenhouse gas emissions, which helps mitigate climate change impacts on marine ecosystems;
- The foundations and structures of wind turbines provide hard surfaces that attract marine life, such as barnacles, mussels, and corals, creating new habitats and increasing local biodiversity;
- The structures can serve as fish aggregation devices, attracting various fish species, which can enhance local fisheries and food webs; and
- Turbine bases add structural complexity to otherwise flat seabeds, benefiting benthic organisms and promoting ecological diversity.

References

European Union (2024), Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration and amending Regulation (EU) 2022/869. Available at: http://data.europa.eu/eli/reg/2024/1991/oj [Accessed July 2025]

European Union (2008), Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive). Available at: http://data.europa.eu/eli/dir/2008/56/oj [Accessed 2025]

Government of Ireland (2024), Ireland's 4th National Biodiversity Action Plan (NBAP). Available at: https://assets.gov.ie/static/documents/4th-national-biodiversity-action-plan.pdf [Accessed July 2025]

Government of Ireland (2020), National Marine Planning Framework (NMPF). Available at: https://assets.gov.ie/static/documents/national-marine-planning-framework.pdf [Accessed July 2025]

Haines-Young, R. (2023), Common International Classification of Ecosystems Services (CICES) V5.2 Guidance on the Application of the Revised Structure. Available at: https://cices.eu/content/uploads/sites/8/2023/08/CICES_V5.2_Guidance_24072023.pdf [Accessed July 2025]

Institute of Environmental Sciences (2013), Ecosystem services assessment: How to do one in practice. Available at: https://www.the-ies.org/resources/ecosystem-services-assessment [Accessed July 2025]

International Finance Corporation (IFC) (2012), Guidance Note 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources. Available at: https://www.ifc.org/content/dam/ifc/doc/2010/20190627-ifc-ps-guidance-note-6-en.pdf [Accessed July 2025]

International Finance Corporation (IFC) (2012), Performance Standard 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources. Available at: https://www.ifc.org/content/dam/ifc/doc/2010/2012-ifc-performance-standard-6-en.pdf [Accessed July 2025]

International Union for Conservation of Nature and Natural Resources (IUCN), Global Ecosystem Typology (GET). Available at: https://global-ecosystems.org/page/typology [Accessed July 2025]

Marine Institute (2022), Socio-Economic Study of Seaweed Harvesting in Ireland. Available at: https://emff.marine.ie/sites/default/files/bluegrowth/PDFs/Socioeconomic%20Study%20of%20Seaweed%20Harvesting%20in%20Ireland.pdf [Accessed November 2025]

Norton, D., Hynes, S., Boyd, J. (2018), Valuing Ireland's Blue Ecosystem Services, SEMRU. Available at: https://www.universityofgalway.ie/media/researchsites/semru/images/marine_ecosystem_service_non_technical_report_final.pdf [Accessed July 2025]

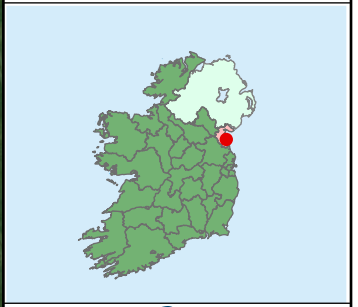
World Resources Institute (WRI) (2013), Weaving Ecosystem Services into Impact Assessment. Available at: https://www.wri.org/research/weaving-ecosystem-services-impact-assessment [Accessed July 2025]

Appendix B Addendum: Location Maps of Updated Planning History

Legend

- Planning Application Boundary
- LCC Planning Application Boundaries

Data Sources: OWL, An Bord Pleanala, Department of House, Local Government, and Heritage



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

LCC Planning Applications

Application: 23399

RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

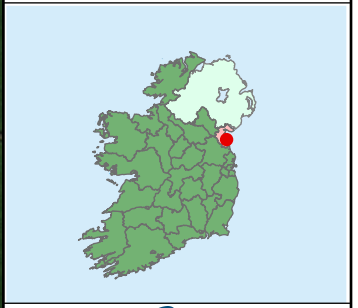
Issue Details

Drawn By: AK	**Project No.** MDR1520c
Checked By: MN	**File Ref:** MDR1520c-RPS-AP-XX-D-Z-0031.S0.A1C01
Approved By: CC	
Scale: 1:3,500 @ A4	**Projection:** ITM (IRENET95) Geographic Co-ordinates: ETRS89
Date: 13/11/2025	

Legend

- Planning Application Boundary
- LCC Planning Application Boundaries

Data Sources: OWL, An Bord Pleanala, Department of House, Local Government, and Heritage



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

LCC Planning Applications

Application: 2360523

RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

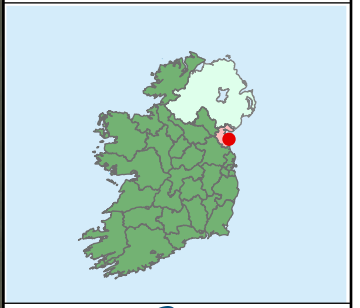
Issue Details

Drawn By: AK	**Project No.** MDR1520c
Checked By: MN	**File Ref:** MDR1520c-RPS-AP-XX-D-Z-0031.S0.A1C01
Approved By: CC	
Scale: 1:3,500 @ A4	**Projection:** ITM (IRENET95) Geographic Co-ordinates: ETRS89
Date: 13/11/2025	

Legend

- Planning Application Boundary
- LCC Planning Application Boundaries

Data Sources: OWL, An Bord Pleanala, Department of House, Local Government, and Heritage



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

LCC Planning Applications

Application: 2468

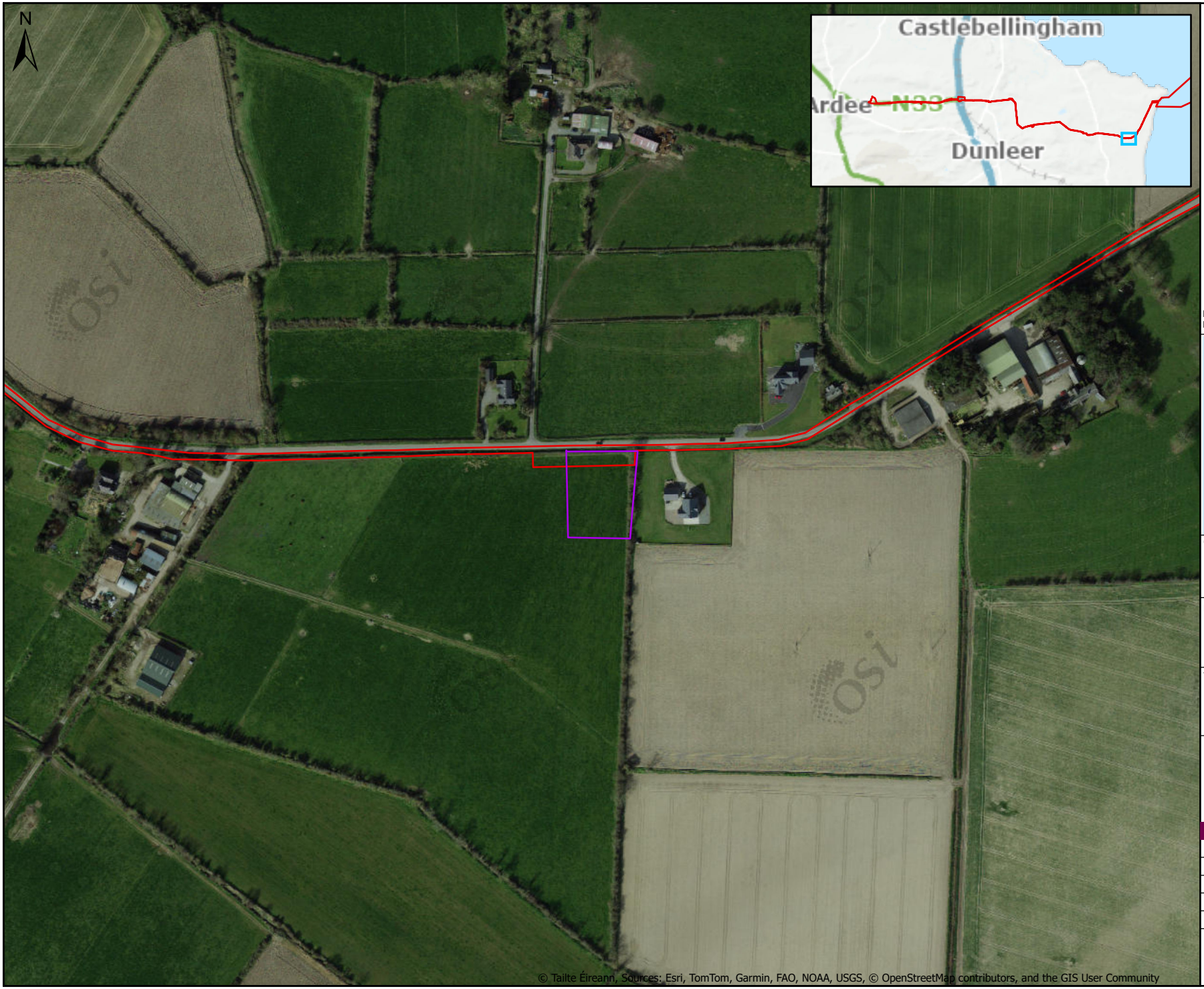
RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

Issue Details

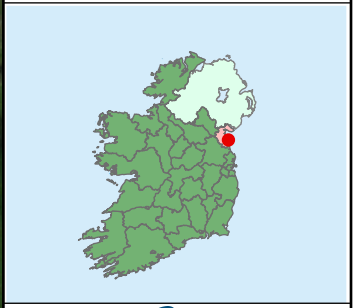
Drawn By: AK	**Project No.** MDR1520c
Checked By: MN	**File Ref:** MDR1520c-RPS-AP-XX-D-Z-0031.S0.A1C01
Approved By: CC	
Scale: 1:3,500 @ A4	**Projection:** ITM (IRENET95) Geographic Co-ordinates: ETRS89
Date: 13/11/2025	



Legend

- Planning Application Boundary
- LCC Planning Application Boundaries

Data Sources: OWL, An Bord Pleanala, Department of House, Local Government, and Heritage



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

LCC Planning Applications

Application: 2460374

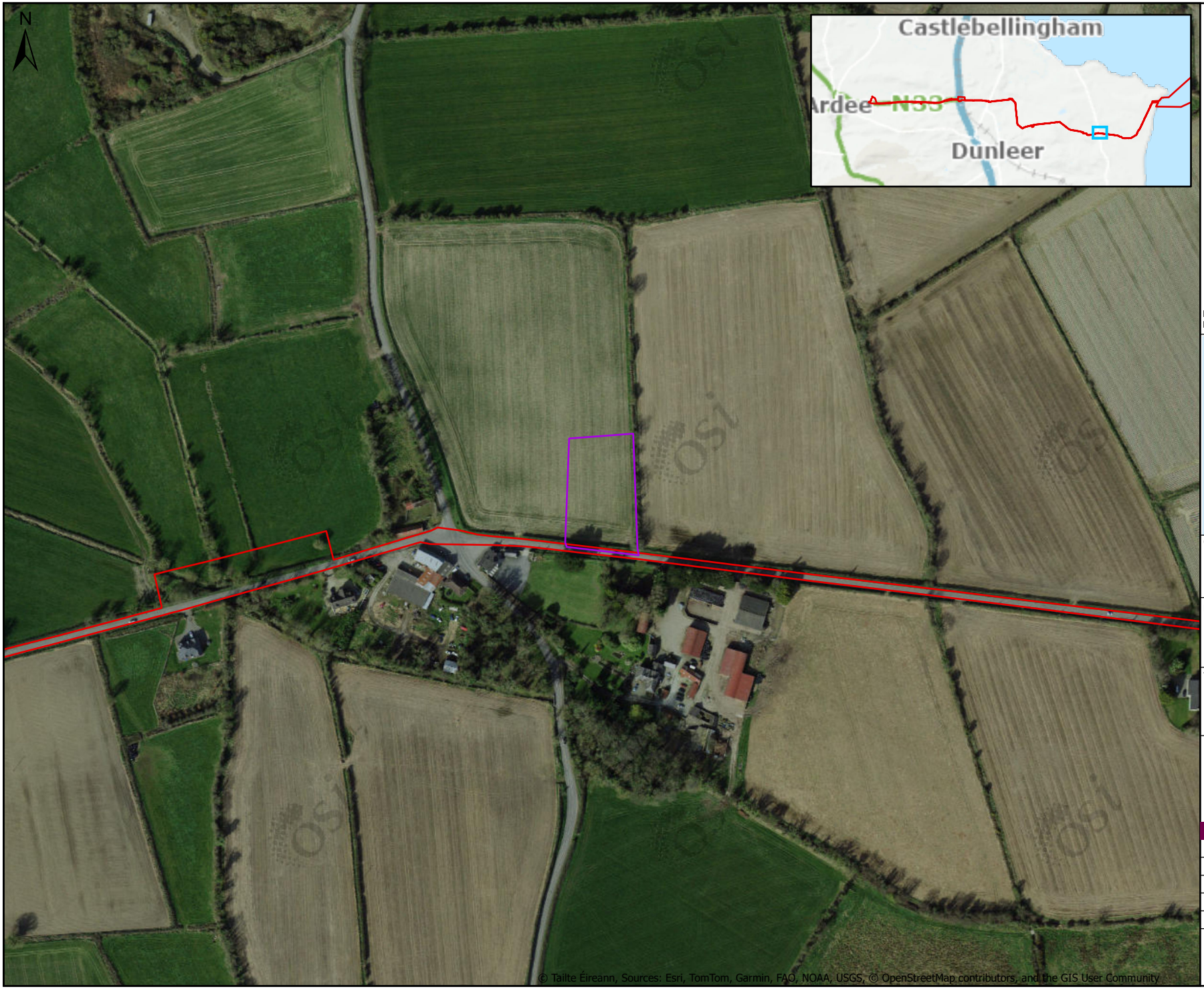
RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

Issue Details

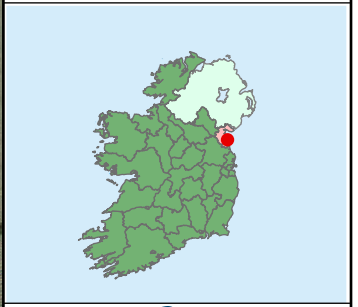
Drawn By: AK	**Project No.** MDR1520c
Checked By: MN	**File Ref:** MDR1520c-RPS-AP-XX-D-Z-0031.S0.A1C01
Approved By: CC	
Scale: 1:3,500 @ A4	**Projection:** ITM (IRENET95) Geographic Co-ordinates: ETRS89
Date: 13/11/2025	



Legend

- Planning Application Boundary
- LCC Planning Application Boundaries

Data Sources: OWL, An Bord Pleanala, Department of House, Local Government, and Heritage



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

LCC Planning Applications

Application: 2460542

RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

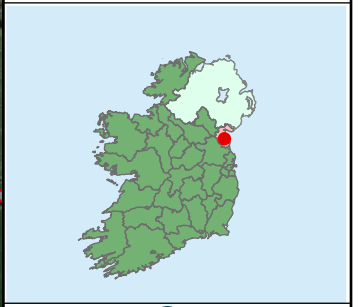
Issue Details

Drawn By: AK	**Project No.** MDR1520c
Checked By: MN	**File Ref:** MDR1520c-RPS-AP-XX-D-Z-0031.S0.A1C01
Approved By: CC	
Scale: 1:3,500 @ A4	**Projection:** ITM (IRENET95) Geographic Co-ordinates: ETRS89
Date: 13/11/2025	

Legend

- Planning Application Boundary
- LCC Planning Application Boundaries

Data Sources: OWL, An Bord Pleanala, Department of House, Local Government, and Heritage



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

LCC Planning Applications

Application: 2460559

RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

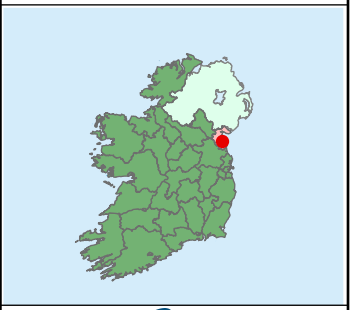
Issue Details

Drawn By: AK	**Project No.** MDR1520c
Checked By: MN	**File Ref:** MDR1520c-RPS-AP-XX-D-Z-0031.S0.A1C01
Approved By: CC	
Scale: 1:3,500 @ A4	**Projection:** ITM (IRENET95) Geographic Co-ordinates: ETRS89
Date: 13/11/2025	

Legend

- Planning Application Boundary
- LCC Planning Application Boundaries

Data Sources: OWL, An Bord Pleanala, Department of House, Local Government, and Heritage



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

LCC Planning Applications

Application: 2560397

RPS
A TETRA TECH COMPANY

West Pier Business Campus,
Dun Laoghaire,
Co Dublin,
Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

Issue Details

Drawn By: AK	**Project No.** MDR1520c
Checked By: MN	**File Ref:** MDR1520c-RPS-AP-XX-D-Z-0031.S0.A1C01
Approved By: CC	
Scale: 1:3,500 @ A4	**Projection:** ITM (IRENET95) Geographic Co-ordinates: ETRS89
Date: 13/11/2025	