codling wind park

EIAR Addendum

Appendix 16-B Navigational Risk Assessment Addendum


codling
wind park

Codling Wind Park Limited (CWPL) is proposing to develop the Codling Wind Park (CWP) Project, which is located in the Irish Sea approximately 13 - 22 km off the east coast of Ireland, at County Wicklow.

On Friday 6th September 2024 CWPL. (referred to hereafter as the 'Applicant') applied for planning permission to An Coimisiún Pleanála (ACP) (referred to hereafter as the 'Commission') under Section 291 of the Planning and Development Act (PDA) 2000, as amended, for the construction, operation and decommissioning of the CWP Project.

On 1st August 2025, having reviewed the application documentation, including the Environmental Impact Assessment Report (EIAR) and the Natura Impact Statement (NIS), the Commission issued a Further Information Request (FIR) in relation to the CWP Project.

This document has been prepared in response to Item 2 of the Commission's FIR. It forms an addendum to Volume 4, Appendix 16.3 Navigational Risk Assessment of the EIAR and supports Section 16 of EIAR Addendum (Part 2). Explanatory notes throughout the sections of the addendum highlight where new and / or revised information has been provided for consideration by the Commission in conjunction with the information provided within the original document. The explanatory notes also refer back to this document to confirm how the new and / or revised information relates to the requests made within the Commission's FIR.

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Abbreviations

Abbreviation	Term in full
ACP	An Coimisiún Pleanála
AIS	Automatic Identification System
COLREGs	Convention on the International Regulations for the Prevention of Collisions at Sea
CWP	Codling Wind Park
DoT	Department of Transport
EIAR	Environmental Impact Assessment Report
FIR	Further Information Request
IAC	Inter-array cable
IRCG	Irish Coast Guard
LMP	Lighting and Marking Plan
m	Metre
MCA	Maritime and Coastguard Agency
MGN	Marine Guidance Note
MSO	Marine Survey Office
NRA	Navigational Risk Assessment
NSP	Navigational Safety Plan
OECC	Offshore Export Cable Corridor
Radar	Radio Detection and Ranging
RFI	Request for Information
SAR	Search and Rescue
SLoO	Single Line of Orientation
SOLAS	International Conventions for the Safety of Life at Sea

1 Introduction

1.1 Background

Section 1.1 is unchanged.

1.2 Navigational Risk Assessment

Section 1.2 is unchanged except for paragraph 4. Paragraph 1 replaces paragraph 4. This updated has been made in response to FIR Item 2b (see FIR Response Document).

1. The Irish Coast Guard (IRCG), Irish Lights and the Marine Survey Office (MSO) have been consulted with respect to the guidance that should be followed for shipping and navigation risk assessment. Irish guidance has since been published (Department of Transport (DoT), 2025) which closely resembles MGN 654 (MCA, 2021), and requires that "ORESS 1 projects shall rely on MGN 654". Further details on guidance are provided in Section 2.

2 Guidance

2.1 Primary Guidance

Section 2.1 is unchanged except for paragraphs 10 and 11. Paragraphs 10 and 11 are replaced by paragraphs 2 and 3 below. This update has been made in response to FIR Item 2b (see FIR Response Document).

2. The IRCG, Irish Lights and the MSO have been consulted with respect to the guidance that should be followed for shipping and navigation risk assessment. Irish guidance has since been published (DoT, 2025) which closely resembles MGN 654 (Maritime and Coastguard Agency (MCA), 2021), and requires that "ORESS 1 projects shall rely on MGN 654". The MSO confirmed in consultation undertaken as part of the FIR process that the NRA should follow MGN 654 (MCA, 2021). Therefore, MGN 654 (MCA, 2021) has been used as the primary guidance document to inform the approach to shipping and navigation assessment.
3. Guidance from the DoT on SAR and Emergency Response was also released in 2025 (DoT, 2025b) which sets out the associated IRCG's requirements. This document has also been considered and applied including within the Safety Justification that was submitted to the IRCG.

2.2 Other Guidance

Section 2.2 is unchanged.

2.3 Lessons Learnt

Section 2.3 is unchanged.

3 Navigational Risk Assessment Methodology

Section 3 is unchanged other than paragraph 27 which is replaced by paragraph 4 below. This update has been made in response to FIR Item 5 (see FIR Response Document).

4. Full details of the cumulative screening methodology are provided in **Section 14** of the **CEA Report (Part 2)** which details the developments that have been screened in for the shipping and navigation assessment cumulative effects assessment (CEA).

4 Consultation

4.1 Key Stakeholder Meetings

Section 4.1 is unchanged. Appendix B Schedule of Post Application Consultations of the FIR Response Document provides an overview of EIA and FIR related consultation undertaken by the Applicant since the CWP Project planning application was submitted.

4.2 Regular Operator Outreach

Section 4.2 is unchanged.

4.3 Hazard Workshop

Section 4.3 is unchanged.

4.4 Scoping Response

Section 4.4 is unchanged.

5 Data Sources

5.1 Summary of Data Sources

Section 5.1 is unchanged except for Table 5-1 which now includes the following rows in Table 5-A. This update has been made in response to FIR Items 1b and 1c (see FIR Response Document).

Table 5-A Data Sources Used to Inform Shipping and Navigation Baseline

Data	Source(s)	Purpose
Vessel traffic (post-application)	Summer 2025 vessel traffic survey data consisting of AIS, Radar and visual observations for the study area (18 August - 1 September 2025) recorded from onshore receivers.	Characterising vessel traffic movements within and in proximity to the array site and OECC.
	Winter 2026 vessel traffic survey data consisting of AIS, Radar and visual observations for the study area (15 - 29 January 2026) recorded from onshore receivers.	

5.2 Vessel Traffic Surveys

Section 5.2 is unchanged but should now be read in conjunction with the additional text provided in paragraph 5 below. This update has been made in response to FIR Items 1b and 1c (see FIR Response Document).

5. The summer 2025 vessel traffic survey was shore-based, carried out from equipment set up at Wicklow Head Lighthouse on the east coast of Ireland. This was a 14-day survey spanning the period 18 August – 1 September 2025.

5.3 Long-Term Vessel Traffic Data

Section 5.3 is unchanged.

5.4 Data Limitations

Section 5.4 is unchanged.

6 Project Description Relevant to Shipping and Navigation

Section 6 is unchanged.

7 Navigational Features

Section 7 is unchanged.

8 Meteorological Ocean Data

Section 8 is unchanged.

9 Emergency Response Resources

Section 9 is unchanged.

10 Maritime Incidents

Section 10 is unchanged.

11 Vessel Traffic

Section 11 is unchanged except for paragraph 139. Paragraph 139 is replaced by paragraph 6 below. This update has been made in response to FIR Items 1b and 1c (see FIR Response Document).

6. This section presents analysis of vessel traffic in proximity to the array site and OECC, based on the vessel traffic survey data sources detailed in Section 5.2. It is noted that for validation purposes, comparison has been undertaken against the long term AIS data in Annex B (see Section B.3.3.6). Two additional post-application vessel traffic surveys have also been undertaken, as noted in Section 5.2. The results of these surveys have been used to validate the findings of the original surveys against up to date data and confirm the NRA findings remain valid. This validation exercise is provided in **Section 16.6.3** of the **EIAR Addendum**.

11.1 Shored Based 2023

Section 11.1 is unchanged.

11.2 Shore Based Survey 2022

Section 11.2 is unchanged.

11.3 Vessel Traffic Survey – 2021

Section 11.3 is unchanged except for paragraph 247. Paragraph 247 is replaced by paragraph 7 below. This update has been made in response to FIR Items 1b and 1c (see FIR Response Document).

7. This section presents assessment of vessel traffic recorded within the study area during a 57-day survey period from the 30 April 2021 - 25 June 2021. This data has been included on a supplementary basis.

11.4 Marine Safety Demarcation Area

Section 11.4 is unchanged.

11.5 Offshore Export Cable Corridor.

Section 11.5 is unchanged.

12 Base Case Vessel Routeing

12.1 Definition of a Main Commercial Route

Section 12.1 is unchanged.

12.2 Pre Wind Farm Main Commercial Routes

Section 12.2 is unchanged.

12.3 Post Wind Farm

Section 12.3 is unchanged except for paragraph 334. Paragraph 334 is replaced by paragraph 8 below. This update has been made in response to FIR Item 1b (see FIR Response Document).

8. As per Section 12.3.2.2, two routes are anticipated to require a minor deviation as a result of the CWP project. A summary of likely cumulative impact on these two routes is provided as follows:

- Route 7: Associated vessels are anticipated to pass inshore of the Codling and India Banks, and between the India and Arklow Banks. The presence of Dublin Array may mean that vessels choose to make a minor deviation to pass further west, and similarly may pass further east once past the India Bank to increase passing distance from Arklow Bank Wind Park Phase 2. This is a minor deviation in terms of increased distance (approximately 0.1nm increase over the in isolation post wind farm case shown in Section 12.3.2.2). However, it was raised during consultation including at the hazard workshop (see Section 4) that impacts associated with increased vessel density and reduction of searoom in the area inshore of the Array Site and Dublin Array should be considered on a cumulative basis. These impacts have been assessed in Chapter 16, Appendix 16.1: Shipping and Navigation, Cumulative Effects Assessment.
- Route 9: Transits on this route were observed to include vessels bound to/from Drogheda, and hence such vessels will be required to navigate in proximity to the NISA project. Port access to Drogheda has been considered based on the NISA NRA (Anatec, 2024) noting access to ports is a key policy element of the National Marine Planning Framework (2021). The CWP project does not have any impact on port access to Drogheda (located in excess of 30nm north of the array

site). On this basis deviations within the localised area around the array site are likely to be no different to the in isolation case.

13 Navigation, Communication and Position Fixing Equipment

Section 13 is unchanged.

14 Collision and Allision Risk Modelling

Section 14 is unchanged.

15 Linkage to EIAR

Section 15 is unchanged.

16 Mitigation Measures

16.1 Embedded

Section 16.1 is unchanged except for Table 16-1, which now includes the following rows provided in **Table 16-A** below. This update has been made in response to FIR Items 2a and 2b. **Table 16-A** has also been updated to clarify that the value of the minimum depth of cover (export cables) (metres (m)) representative scenario is 3.0m within the zone of greater burial depth adjacent to Dún Laoghaire Harbour.

It is noted by the Applicant that this correction has no material bearing on the conclusions of assessment.

Table 16-A Embedded Mitigation

Project Element	Description
Navigational Safety Plan (NSP)	A Navigational Safety Plan (NSP) has been prepared for shipping and navigation purposes, including the safe navigation of fishing vessels. The NSP includes details of: • Advisory safe passing distances around structures and works; • Marine coordination and communication to manage the movements of project vessels; • Marking of all infrastructure associated with the project (including subsea cables) on appropriately scaled Admiralty Charts;

	• Procedures in relation to Local Notices to Mariners, to be updated and re-issued during construction and prior to planned maintenance works; • Consultation with the relevant harbour authorities; • Compliance of all project vessels with international marine regulations as adopted by the Flag State, notably the COLREGs and International Convention for the Safety of Life at Sea (SOLAS); • Use of a guard vessel(s) as deemed appropriate by risk assessment; and • Confirmation that vessels used in operations will be appropriately licensed and have the requisite Certificates, e.g. Irish Load Line Cert, in place beforehand. The NSP will be implemented by the Applicant and its appointed contractor(s) and will be secured through conditions of the development consent. It will be a live document which will be updated and submitted to the relevant authority, prior to the start of construction.
Lighting and Marking Plan	A Lighting and Marking Plan (LMP) has been prepared to capture construction and O&M phase lighting requirements for the offshore infrastructure and demarcation of the offshore development area, such as construction buoy requirements. The LMP includes details of: • Marking and lighting of the array site in agreement with Irish Lights and in line with IALA G1162 (IALA, 2021a); • Buoyed construction area around the array in agreement with Irish Lights; and • Specific requirements in terms of aviation lighting to be installed on the turbines. The LMP will be prepared in consultation with the IAA, DoD and IRCG. It will take into account DoD's requirement for WTGs to be observable to night vision equipment. The LMP will ensure appropriate lighting is in place to facilitate aeronautical safety. The LMP will be implemented by the Applicant and its appointed contractor(s) and will be secured through conditions of the development consent. It will be a live document which will be updated and submitted to the relevant authority, prior to the start of construction.
Cable protection	The Applicant will, where practicable, bury all cables within the offshore development area: • IACs and interconnector cables will have a minimum depth of cover of 1.0 m; and • Offshore export cables will have a minimum depth of cover of 1.4 m (except cables buried within the zone of greater burial depth adjacent to DL Harbour, which will have a minimum depth of cover of 3.0 m). Except in the zone of greater burial depth, in cases where burial is inadequate due to unforeseeable seabed conditions, and at cable crossings, cable protection will be implemented as mitigation to avoid risks to other marine operations.
Liaison with SAR resources	An Emergency Response Cooperation Plan (ERCoP) will be in place for the CWP Project. The ERCoP will detail liaison with SAR resources including the IRCG to ensure suitable emergency response plans and

	procedures are in place. The ERCoP will refer to the marking and lighting of the WTGs and will consider helicopters undertaking SAR operations when rendering assistance to vessels and persons in the vicinity of the offshore development area. This will ensure appropriate lighting is in place to facilitate aeronautical safety during SAR operations.
Minimum blade clearance	All WTGs for both layout options will feature a minimum blade tip clearance of 36 m above Mean Sean Level (MSL) (+37.72m LAT). This is beyond the minimum 22 m clearance above HAT required for safety of navigation and has been set by the Applicant to reduce the potential collision risk for offshore ornithology receptors.
Turbine and layout design	Positions of WTGs and OSSs have been informed by a wide range of site specific data, including metocean data (e.g., wind speed and direction), geophysical and geotechnical survey data (e.g., bathymetry), environmental data (e.g., benthic surveys and archaeological assessment) and stakeholder consultation. Designing and optimising the layout of the WTGs has considered multiple constraints identified from analysis of these datasets, alongside the consideration of layout principles taken from relevant guidance on the design of OWFs. A summary of the key actions taken to avoid or otherwise reduce impacts is provided below: • The WTG layout options include Search and Rescue (SAR) access lanes to allow a SAR resource to fly on the same orientation continuously through the array site. This is provided to minimise risks to surface vessels and / or SAR resource transiting through the array site. • Archaeological exclusion zones (AEZs) around known features of archaeological interest have been avoided. No works that impact the seabed will be undertaken within the extent of an AEZ during the construction, operational or decommissioning phases. • The locations of offshore infrastructure been developed to avoid known sensitive ecological habitats, including areas with suitable conditions for *Sabellaria spinulosa*, which can form reefs under some circumstances. Whilst reefs were not identified during the characterisation surveys, as an ephemeral feature it will be necessary to validate the results in advance of construction. A pre-construction geophysical survey will therefore be undertaken to facilitate the micro-siting around sensitive habitats such as *Sabellaria spinulosa*. • The WTG layout options have been developed to avoid or minimise interaction with known areas of high fishing density, where possible. As avoidance is not always possible, the layouts have also been developed to increase the potential for coexistence. A paleochannel (the remnants of a river or stream channel that flowed in the past) in the centre west of the array site has been avoided.
Construction Environmental Management Plan (CEMP)	A Construction Environmental Management Plan (CEMP) has been prepared to provide a management framework, to ensure appropriate controls are in place to manage environmental risks associated with the construction of the CWP Project. It outlines environmental procedures that require consideration throughout the construction

	process, in accordance with legislative requirements and industry best practice. In summary, the CEMP includes details of: • the Environmental Management Framework for the CWP Project including environmental roles and responsibilities (i.e., ecological clerk of works) and contractor requirements (i.e., method statements for specific construction activities); • mitigation measures and commitments made within the EIAR, Natura Impact Statement (NIS) and supporting documentation for the CWP Project; • measures proposed to ensure effective handling of chemicals, oils and fuels including compliance with the MARPOL convention; • a Marine Pollution Prevention and Contingency Plan to address the procedures to be followed in the event of a marine pollution incident originating from the operations of the CWP Project; • Emergency Response Plan adhered to in the event of discovering unexploded ordnance; • Offshore biosecurity and invasive species management detailing how the risk of introduction and spread of invasive non-native species will be minimised; and • Offshore waste management and disposal arrangements. The CEMP will be implemented by the Applicant and its appointed contractor(s) and will be secured through conditions of the development consent. It will be a live document which will be updated and submitted to the relevant authority, prior to the start of construction.
Rehabilitation Schedule	A Rehabilitation Schedule is provided as part of the planning application. This has been prepared in accordance with the MAP Act (as amended by the Maritime and Valuation (Amendment) Act 2022) to provide preliminary information on the approaches to decommissioning the offshore and onshore components of the CWP Project. A final Rehabilitation Schedule will require approval from the statutory consultees prior to the undertaking of decommissioning works. This will reflect discussions held with stakeholders and regulators to determine the exact methodology for decommissioning, taking into account available methods, best practice and likely environmental effects.
Vessel Traffic Monitoring	In line with MGN 654 (MCA, 2021) and the DoT Guidance on Safety of Navigation & Emergency Response: Offshore Renewable Energy Installations (DoT, 2025), the findings of the NRA will be validated during and post construction via vessel traffic monitoring exercises. Methodologies for the required data collection will be submitted to the MSO pre-construction detailing proposed formats and timings/frequencies relative to the construction phase.

16.2 Additional

Section 16.2 is unchanged.

17 Summary

Section 17 is unchanged.

18 References

Section 18 remains is but should now be read in conjunction with the additional text provided in paragraph 9 below. This update has been made in response to RFI Item 5.

9. Anatec (2024). North Irish Sea Array Offshore Wind Farm Navigational Risk Assessment. https://northirishseaarraysid.ie/wp-content/uploads/2024/06/Appendix-17.1-Navigational-Risk-Assessment.pdf

ANNEX A REGULAR OPERATOR CONSULTATION

Annex A is unchanged.

ANNEX B LONG-TERM VESSEL TRAFFIC MOVEMENTS

B.1 Introduction

Section B.1 is unchanged except for paragraph 458. Paragraph 458 is replaced with paragraph 10 below. This update has been made in response to RFI Item 2b.

10. The approach to vessel traffic data collection for the CWP Project has been based on requirements of the MCA MGN 654 (MCA, 2021). MGN 654 requires a minimum of 28 days of up to date vessel traffic data that accounts for non-AIS traffic and seasonal variation. However, short term periods in isolation can omit certain seasonal or infrequent marine activity. Therefore, in line with good practice assessment procedures, 12 months of AIS data covering the entirety of 2021 has also been considered to ensure a comprehensive overview of the vessel traffic baseline can be established, including the inclusion of any seasonal variation.

B.2 Methodology

Section B.2 remains unchanged.

B.3 Long-Term Vessel Traffic Movements

Section B.3 remains unchanged.

B.4 Survey Data Comparison

Section B.4 remains unchanged.

B.5 Summary and Conclusion

Section B.5 remains unchanged except for paragraph 497. Paragraph 497 is replaced by paragraph 11 below. This update has been made to correct an error identified in the existing NRA. In paragraph 497 of the existing NRA, it is incorrectly stated that anchored vessels north of Wicklow are situated to the east of the array site.

It is noted by the Applicant that this correction has no material bearing on the conclusions of the assessment..

11. Anchored vessels were typically situated to the northwest of the array site, south of Dublin. Additionally, a number of anchored cargo vessels were also located to the west of the array site, north of Wicklow. The majority of anchored vessels were cargo and tanker vessels.

ANNEX C HAZARD LOG

Annex C is unchanged.

ANNEX D CONSEQUENCES

Annex D is unchanged.