



Natura Impact Statement

Volume 2

Introduction





Table of contents

1	INTRODUCTION	11
1.1	The CWP Project	11
1.2	The Applicant	11
1.3	Purpose of this document	11
1.4	Requirement for a Natura Impact Statement	11
2	METHODOLOGY	14
2.1	Guidance	14
2.2	Data and information sources	15
2.3	Appropriate Assessment process	15
3	STAKEHOLDER ENGAGEMENT	19
4	PROJECT DESCRIPTION	23
4.1	Generating station	27
4.2	Offshore transmission infrastructure	27
4.3	Landfall	28
4.4	Onshore transmission infrastructure	28
4.5	Construction programme	29
4.6	Operations and maintenance (O&M)	31
4.7	Decommissioning	31



List of tables

Table 3-1 Consultation responses relevant to NIS	. 19	9
Table 4-1 Codling Wind Park construction timeline	. 30)

List of figures

Figure 4-1 Planning application boundary	24
Figure 4-2 array site and maritime safety demarcation area	25
Figure 4-3 onshore development area	26

Page 4 of 31



Abbreviations

Abbreviation	Term in Full
AA	Appropriate assessment
ABP	An Bord Pleanála
AC	Alternating current
CWP	Codling Wind Park
CWPL	Codling Wind Park Limited
DCC	Dublin City Council
DEHLG	Department of the Environment, Heritage & Local Government
EC	European Commission
EDF R	Électricité de France Renewables
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EMF	Electromagnetic fields
ESB	Electricity Supply Board
EU	European Union
FOS	Fred Olsen Seawind
HDD	Horizontal directional drilling
HWM	High water mark
HVAC	High voltage alternating current
IAC	Inter-array cables
IFI	Inland Fisheries Ireland
Km	Kilometre
kV	Kilovolt
LSE	Likely significant effects
MAC	Maritime Area Consent
MAP	Maritime Area Planning
MI	Marine Institute
MW	megawatts
NGO	Non-governmental organisation
NIS	Natura Impact Statement
NMPF	National Marine Planning Framework

Page 5 of 31



Abbreviation	Term in Full
NPWS	National Parks and Wildlife Services
OECC	Offshore export cable corridor
OfTI	Offshore transmission infrastructure
OIW	Onshore infrastructure works
OWF	Offshore wind farm
O&M	Operation and maintenance
OSS	Offshore substation structure
ΟΤΙ	Onshore Transmission Infrastructure
PDA	Planning and Development Act
QI	Qualifying Interests
SAC	Special Area of Conservation
SCI	Special Conservation Interests
SFPA	Sea Fisheries Protection Agency
SPA	Special Protection Area
SSCO	Site-specific conservation objective
TJB	Transition joint bay
WTG	Wind turbine generator
UK	United Kingdom
Zol	Zone of influence



Definitions

Glossary	Meaning		
alternating current (AC)	A flow of electrical current which reaches maximum in one direction, decreases to zero, then reverses itself and reaches maximum in the opposite direction. The cycle is repeated continuously and the number of cycles per second is equal to the frequency. The Irish electrical system is an AC network that uses a frequency of 50 Hz.		
the Applicant	The developer, Codling Wind Park Limited (CWPL).		
array site	The red line boundary area within which the wind turbine generators (WTGs), inter-array cables (IACs) and the Offshore Substation Structures (OSSs) are proposed.		
Codling Wind Park (CWP) Project	The proposed development as a whole is referred to as the Codling Wind Park (CWP) Project, comprising of the offshore infrastructure, the onshore infrastructure and any associated temporary works.		
Codling Wind Park Limited (CWPL)	A joint venture between Fred Olsen Seawind (FOS) and Électricité de France (EDF) Renewables, established to develop the CWP Project.		
EirGrid	State-owned electric power transmission system operator in Ireland and nominated Offshore Transmission Asset Owner.		
Environmental Impact Assessment (EIA)	A systematic means of assessing the likely significant effects of a proposed project, undertaken in accordance with the EIA Directive and the relevant Irish legislation.		
Environmental Impact Assessment Report (EIAR)	The report prepared by the Applicant to describe the findings of the EIA for the CWP Project.		
ESB Networks (ESBN)	Owner of the electricity distribution system in the Republic of Ireland, responsible for carrying out maintenance, repairs and construction on the grid.		
export cables	The cables, both onshore and offshore, that connect the offshore substations with the onshore substation.		
generating station	Comprising the wind turbine generators (WTGs) and inter-array cables (IACs).		
high water mark (HWM)	The line of high water of ordinary or medium tides of the sea or tidal river or estuary.		
horizontal directional drilling (HDD)	HDD is a trenchless drilling method used to install cable ducts beneath the ground through which onshore export cables from can be pulled. HDD enables the installation of cables beneath obstacles such as roads, waterways and existing utilities.		
inter-array cables (IACs)	The subsea electricity cables between each WTG between and the OSSs.		
interconnector cables	The subsea electricity cables between OSSs.		
landfall	The point at which the offshore export cables are brought onshore and connected to the onshore export cables via the transition joint bays (TJB).		

Page 7 of 31



Glossary	Meaning
Maritime Area Consent (MAC)	A Maritime Area Consent (MAC) provides State authorisation for a prospective developer to undertake a maritime usage and occupy a specified part of the maritime area.
	A MAC is required to be in place before planning consent can be sought.
Maritime Area Planning (MAP) Act 2021	The MAP Act 2021 regulates the maritime area, by means of a National Marine Planning Framework (NMPF), maritime area consents for the occupation of the maritime area for the purposes of maritime usages that will be undertaken for undefined or relatively long periods of time (including any such usages which also require development permission under the Planning and Development Act 2000) and licences for the occupation of the maritime area for maritime usages that are minor or that will be undertaken for relatively short periods of time. The MAP Act also creates a new regulatory authority, and a regime for designating protected marine areas.
metocean	Meteorological and oceanographic data (for example metocean data or metocean conditions).
offshore development area	The entire footprint of the offshore infrastructure and associated temporary works that will form the offshore boundary for the development consent application.
offshore export cables	The cables which transport electricity generated by the WTGs from the offshore substations (OSSs) to the landfall.
offshore export cable corridor (OECC)	The area between the array site and the landfall, within which the offshore export cables cable will be installed along with cable protection and other temporary works for construction.
offshore infrastructure	The offshore infrastructure, comprising of the WTGs, IACs, OSSs, Interconnector cables, offshore export cables and other associated infrastructure such as cable and scour protection.
offshore substation structure (OSS)	A fixed structure located within the array site, containing electrical equipment to aggregate the power from the wind turbine generators and convert it into a more suitable form for export to shore.
OSS topside	The offshore substation topside structure resting on the OSS monopile foundation and housing all electrical and ancillary equipment. This includes all systems such as electrical, SCADA, safety and mechanical equipment.
OSS monopile foundation	This is the bottom fixed structure piled to the seabed supporting the OSS topside. It consists of a monopile and a transition piece. It can include systems such as electrical, SCADA, cathodic protection, safety and mechanical equipment.
offshore transmission infrastructure (OfTI)	The offshore transmission assets comprising the OSSs, interconnector cables and offshore export cables.
	with the OfTI.
onshore export cables	The cables which transport electricity generated by the WTGs from the TJBs at the landfall to the onshore substation.

Page 8 of 31



Glossary	Meaning
onshore development area	The entire footprint of the OTI and associated temporary works that will form the onshore boundary for the development consent application.
onshore transmission infrastructure (OTI)	The onshore transmission assets comprising the TJBs, onshore export cables and the onshore substation.
	with the OTI.
onshore substation	Site containing electrical equipment to enable connection to the national grid.
onshore substation site	The area within which permanent and temporary works will be undertaken to construction the onshore substation.
onshore substation site boundary	The physical boundary of the onshore substation site.
onshore substation operational site	The area within the operational site boundary within which operational activities will occur.
operations and maintenance (O&M) activities	Activities (e.g., monitoring, inspections, reactive repairs, planned maintenance) undertaken during the O&M phase of the CWP Project.
O&M phase	This is the period of time during which the CWP Project will be operated and maintained.
operations and maintenance base (OMB)	The operational and maintenance facilities to support the CWP Project, including buildings/warehouses, laydown areas, cranes, parking and marine works such as pontoons for maintenance vessels.
parameters	Set of parameters by which the CWP Project is defined and which are used to form the basis of assessments.
Phase 1 Project	On 19 May 2020, the Government announced that seven offshore renewable energy projects had been designated as Relevant Projects, namely Oriel Wind Park, Arklow Bank II, Dublin Array (Bray Bank and Kish Bank), North Irish Sea Array, Codling Wind Park and Sceirde Rocks. These projects are now known as Phase 1 Projects.
planning application boundary	The area subject to the application for development consent, including all permanent and temporary works for the CWP Project.
Poolbeg 220kV substation	This is the ESBN substation that the ESBN network cables connect into, from the onshore substation. This substation will then transfer the electricity onwards to the national grid.
revetment	A facing of impact-resistant material applied to a bank or wall in order to absorb the energy of incoming water and protect it from erosion.
sheet piles	Sections of sheet materials with interlocking edges that are driven into the ground to provide earth retention and excavation support. Sheet piling is used in construction to provide both temporary and permanent walls.
temporary cofferdam	A barrier to tidal inundation while the existing stone covered foreshore is temporarily removed to install the landfall cable ducts.

Page 9 of 31



Glossary	Meaning
transition joint bay (TJB)	This is required as part of the OTI and is located at the landfall. It is an underground bay housing a joint which connects the offshore and onshore export cables.
wind turbine generator	All the components of a wind turbine, including the tower, nacelle, and rotor.
zone of influence (Zol)	Spatial extent of potential impacts resulting from the project.

Page 10 of 31



1 INTRODUCTION

1.1 The CWP Project

- 1. The Codling Wind Park (CWP) Project is a proposed offshore wind farm (OWF) in the Irish Sea, set in an area called Codling Bank, approximately 13–22 km off the County Wicklow coast, between Greystones and Wicklow Town.
- 2. Codling Wind Park Limited (CWPL) (hereafter 'the Applicant') is applying for permission for the CWP Project under Section 291 of the Planning and Development Act (PDA) (as amended by the Maritime Area Planning (MAP) Act 2021).

1.2 The Applicant

3. The Applicant is a joint venture between Fred. Olsen Seawind and Électricité de France Renewables (EDF R) and was established to develop the CWP Project. Both companies are leading developers, owners and operators of renewable energy assets, with many years of global experience in the renewable energy and offshore wind sector.

1.3 Purpose of this document

- 4. The CWP Project Natura Impact Statement (NIS) is laid out as follows:
 - **Volume 1** contains the introduction to the CWP Project, document structure and a summary of the conclusions of the other volumes.
 - This Volume (Volume 2) contains the introductory sections of the document, detailing the relevant legislation, assessment methodology, and the project description.
 - Volume 3 provides the report to inform AA Screening.
 - Volume 4 provides the scientific examination of the CWP Project on relevant European sites (Special Area of Conservation (SACs)), to identify and characterise any possible implications of the CWP Project on the integrity of European sites.
 - Volume 5 (Part 1 and Part 2) provides the scientific examination of the CWP Project on relevant European sites (Special Protection Areas (SPAs)), to identify and characterise any possible implications of the CWP Project on the integrity of European sites.
 - Volume 6 (Part 1 and Part 2) provides the scientific examination of the CWP Project and examines the in-combination impacts screened into the analysis of project-only assessment (Volume 4 and 5).
 - Relevant outline plans or other supporting information as referred to within the NIS are included in **Volume 7** as appendices.
- 5. This document is **Volume 2** of the CWP Project NIS. It provides the background, legislative context and methodology which is applied in the subsequent volumes of this NIS.

1.4 Requirement for a Natura Impact Statement

6. With the introduction of the Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) came the obligation to establish the Natura 2000 network, comprising a coherent European ecological network of sites hosting particular natural habitat types

Page 11 of 31



and habitats of identified species, to enable the relevant habitat types and species' habitats to be maintained or, where appropriate, restored at a favourable conservation status in their natural range.

- 7. The Natura 2000 network comprises Special Areas of Conservation (SACs, including candidate SACs) designated under the Habitats Directive, and Special Protection Areas (SPAs, including proposed SPAs) designated under the Birds Directive (Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds). These sites are referred to collectively as "European sites".
- 8. More specifically, SACs are designated for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds) identified in the Habitats Directive. SPAs are designated for the conservation of Annex I birds identified in the Birds Directive and other regularly occurring migratory birds and their habitats. The habitats and species for which SACs are designated are referred to as the Qualifying Interests (QIs) of the sites. The species for which SPAs are designated are referred to as Special Conservation Interests (SCIs). Member states are required to identify conservation objectives in respect of each QI and SCI.
- 9. Article 6(3) of the Habitats Directive provides that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment (AA) of its implications for the site in view of the site's conservation objectives. In particular, Article 6(3) provides that the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public. Article 6(4) of the Habitats Directive provides that if, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. AA has been a legal requirement in Ireland since the adoption of the European Communities (Natural Habitats) Regulations 1997. This has now been replaced by the European Communities (Birds and Natural Habitats) Regulations 2011 as amended (hereafter "the Habitats Regulations") and Part XAB of the PDA 2000.
- 10. The CWP Project has conducted an AA screening assessment, and it is the determination of the CWP Project (in the absence of a review by An Bord Pleanála (ABP)) that, in the interests of the highest environmental standards, an NIS is to be conducted in order to provide the competent national authority sufficient objective information that the CWP Project, individually or in combination with other plans or projects, will not adversely affect the integrity of any European site.
- 11. It is recognised that following the United Kingdom's departure from the European Union (EU), SACs and SPAs in the United Kingdom (UK) are no longer considered as Natura 2000 sites for the purpose of an assessment pursuant to Article 6(3) of the Habitats Directive and are instead part of the UK national site network. However, pursuant to the UK's Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, those sites still retain the same protection under UK law as they did prior to the UK's exit from the EU.
- 12. In these circumstances, and consistent with Ireland's obligations as a signatory to the Bern Convention on the Conservation of European Wildlife and Natural Habitats, to which the Birds and Habitats Directives give effect, and in order to ensure the highest level of protection for the species and habitats protected by those Directives, the following assessment includes an assessment of the UK sites formerly forming part of the Natura 2000 network of sites protected under those Directives. This will enable the competent authorities to ensure that there will be no adverse effect on the integrity of those UK sites and the UK national site network.
- 13. This report (the NIS for the CWP Project, including all volumes) has been prepared in accordance with the current guidance (National Parks and Wildlife Service (NPWS) 2009, revised February 2010, Office

Page 12 of 31



of Planning Regulator 2021). This report (all volumes) accompanies the application for development of the CWP Project, to support the Competent Authority in its AA in respect of the CWP Project.

Page 13 of 31



2 METHODOLOGY

14. The following section sets out the methodology followed in preparing the NIS for the CWP Project, including relevant guidance. The NIS has been prepared in light of relevant comments by consultees (See Section 3 – Stakeholder Engagement) and the final design of the CWP Project (See Section 4 – Project Description).

2.1 Guidance

- 15. Guidelines for Planning Authorities have been published by the Department of the Environment Heritage and Local Government (DEHLG, 2010a). In addition to the advice available from the Department, the European Commission has published a number of documents which provide a significant body of guidance on the requirements of AA, most notably including 'Assessment of Plans and Projects Significantly Affecting Natura 2000 sites Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC' (EC, 2001), which sets out the principles of how to approach decision making during the process. These principal national and European guidelines have been followed in the preparation this NIS.
- 16. The following list identifies the primary guidance documents that have been referred to during the preparation of this NIS:
 - Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, Dublin (DEHLG, 2010a);
 - Communication from the Commission on the Precautionary Principle, Office for Official Publications of the European Communities, Luxembourg (EC, 2000);
 - Department of Environment Heritage and Local Government Circular NPW 1/10 and PSSP 2/10 on Appropriate Assessment under Article 6 of the Habitats Directive – Guidance for Planning Authorities (DEHLG, 2010b);
 - European Commission's Methodological Guidance on Articles 6(3) and (4) of the Habitats Directive (European Commission 2019, European Commission 2021);
 - European Commission Notice C(2018) 7621 'Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC', Office for Official Publications of the European Communities, Luxembourg (EC, 2019);
 - European Commission Staff Working Document 'Integrating Biodiversity and Nature Protection into Port Development' (EC, 2011b);
 - Estuaries and Coastal Zones within the Context of the Birds and Habitats Directives Technical Supporting Document on their Dual Roles as Natura 2000 Sites and as Waterways and Locations for Ports. European Commission (EC, 2009);
 - Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC Clarification of the concepts of alternative solutions, imperative reasons of overriding public interest, compensatory measures;
 - Guidance document on the implementation of the birds and habitats directive in estuaries and coastal zones with particular attention to port development and dredging. European Commission (EC, 2011a);
 - Guidance document on wind energy developments and EU nature legislation, European Commission (2020);
 - Marine Natura Impact Statements in Irish Special Areas of Conservation: A working document, National Parks and Wildlife Service, Dublin (NPWS, 2012);
 - Office of the Planning Regulator. Appropriate Assessment Screening for Development Management. OPR Practice Note PN0 (OPR, 2021);

Page 14 of 31



- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (EC, 2013); and
- Institute of Air Quality Management 'A guide to the assessment of air quality impacts on designated nature conservation sites (Version 1.0)' (IAQM, 2019).

2.2 Data and information sources

- 17. In addition to desk-based information sources (referenced within relevant sections), site specific information on which to base the NIS has been taken from site characterisation surveys conducted for the CWP Project, including but not limited to the following EIAR Appendices:
 - Benthic and intertidal surveys (as detailed in Appendix 8.3 Benthic Baseline Report);
 - Ornithology surveys (as detailed in Appendix 10.5 Baseline Characterisation Report of the Environmental Impact Assessment Report (EIAR));
 - Marine mammal surveys (as detailed in Appendix 11.3 Baseline Technical report of the EIAR); and
 - Terrestrial ecological surveys (as detailed in **Appendix 21.3 Ecological Survey of Supratidal Habitats at Poolbeg** of the EIAR).

2.3 Appropriate Assessment process

2.3.1 Appropriate Assessment stages

- The European Commission's Guidance (European Commission, Directorate-General for Environment, Guidance document on assessment of plans and projects in relation to Natura 2000 sites – A summary, Publications Office of the European Union, 2022) promotes a four-stage process to complete the AA:
 - Stage 1 Screening process;
 - Stage 2 Appropriate Assessment;
 - Stage 3 Assessment of alternative solutions; and
 - Stage 4 Assessment where no alternative solutions exist and where adverse impacts remain.
- 19. The Office of the Planning Regulator issued a practice note on AA screening for development proposals (Office of the Planning Regulator, 2021). The Practice Note outlines the steps and matters to be considered during the AA screening process. In line with the Office of the Planning Regulator's Practice Note, and the European Commission's Methodological Guidance on Articles 6(3) and 6(4) of the Habitats Directive (European Commission 2021), the following stages and steps have been undertaken to provide information for AA.

Stage 1 – Screening process

- 20. Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3), which are:
 - 1. Whether a plan or project is directly connected to, or necessary for, the management of the site; and
 - 2. Whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives.

Page 15 of 31



- 21. Screening involves the following:
 - 1. Provide a description of the plan or project, and local site or plan area characteristics;
 - 2. Ascertain the locations of the relevant Natura 2000 sites and compile information on the QIs / SCIs and conservation objectives for the sites;
 - 3. Assess LSE (direct, indirect and cumulative), on the basis of available information as a desk study, field survey or primary research, as necessary, consideration of in-combination effects; and
 - 4. Draw conclusion as to whether or not the project (either alone or in combination with other plans or projects) may give rise to significant effects in the absence of mitigation, outlined within a Screening Statement.
- 22. The Commission's 2018 Notice (EC, 2019) advises that the AA procedure under Article 6(3) is triggered not by the certainty but by the likelihood of significant effects arising from plans or projects regardless of their location inside or outside a protected site. Such likelihood exists if significant effects on the site cannot be excluded. The significance of effects should be determined in relation to the specific features and environmental conditions of the site concerned by the plan or project, taking particular account of the site's conservation objectives and ecological characteristics.
- 23. A significant effect is triggered when:
 - There is a probability or a risk of a plan or project having a significant effect on a European site;
 - The plan is likely to undermine the site's conservation objectives; and
 - A significant effect cannot be excluded on the basis of objective information.
- 24. If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA).

Stage 2 – Appropriate assessment

- 25. This stage considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a Natura 2000 site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects. The proponent of the plan or project will be required to submit a NIS, i.e., the report of a targeted professional scientific examination of the plan or project and the relevant Natura 2000 sites, to identify and characterise any possible implications for the site, in view of the site's SCIs, QIs and conservation objectives, taking account of in-combination effects. This should provide information to enable the Competent Authority to carry out the AA. If the assessment is negative, i.e. adverse effects on the integrity (AESI) of a site cannot be excluded, then the process must proceed through Stage 3: Alternative solutions (where applicable), down to Stage 4: Imperative reasons of overriding public interest (IROPI), or the plan or project should be abandoned. It is the Competent Authority's responsibility to complete and record the AA. The overall assessment process includes the gathering and consideration of data and information relating to the plan or project and the site, the key elements of which should be contained in the NIS, in addition to data and information from other sources, and opinions from stakeholders, such as nature conservation authorities and relevant non-governmental organisations (NGOs).
- 26. This NIS concludes no AESI on any Natura 2000 sites and as such only provides information as required for Stage 1 and Stage 2.

2.3.2 Zone of Influence

27. The Zone of Influence (ZoI) of the CWP Project is the geographical area over which it could affect the receiving environment in a way that could have an impact on the QI or SCI of a European site. This is established on a case-by-case basis using the Source-Pathway-Receptor framework and varies for

Page 16 of 31



static or mobile receptors. For static receptors (i.e. habitat Qls), the Zol relates directly to the extent over which an impact may act. For mobile receptors (i.e. mobile species Qls or SCls), the interaction of the Ql or SCl is considered in light of the mobile species' natural range, for example interaction with the Zol with migration routes or foraging areas. The Source-Pathway-Receptor framework is a structured approach used to understand complex systems, particularly in the context of environmental management and risk assessment. Detail of the Zols and how that is considered in light of mobile receptors is presented in **Volume 3 – Natura Impact Statement Screening Report**.

2.3.3 Conservation Objectives

- 28. Site-specific conservation objectives (SSCOs) aim to define favourable conservation conditions for a particular QI or SCI. The maintenance of habitats and species within Natura 2000 sites at favourable conservation conditions, will contribute to the overall maintenance of a favourable conservation status of those habitats and species at a national level.
- 29. Favourable conservation status of a habitat is achieved when:
 - Its natural range, and area it covers within that range, are stable or increasing;
 - The specific structure and functions which are necessary for its long-term maintenance exist;
 - Are likely to continue to exist for the foreseeable future; and
 - The conservation status of its typical species is favourable.
- 30. The favourable conservation status of a species is achieved when:
 - Population dynamics data on the species concerned indicate that it is maintaining itself on a longterm basis as a viable component of its natural habitats;
 - The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and
 - There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.
- 31. NPWS began preparing detailed SSCOs for European sites in 2011. This NIS seeks to assess the impacts of the CWP Project against published SSCOs where they are available (including in relation to transboundary sites where SSCOs are detailed by other relevant organisations) and identify appropriate proxy COs in the event that no SSCO is available for a given QI or SCI. To that end, the most up-to-date available SSCOs for the European sites are considered in this NIS.

2.3.4 Mitigation measures

- 32. As noted above, the AA screening process must be carried out in the absence of mitigation measures that are designed to manage effects on QI and SCI species. However, European case law confirms that 'standard' measures, which will be implemented regardless of potential impacts on European sites, can be factored in at the AA screening stage. Such measures may be required under other legal frameworks, for example the MARPOL Convention in relation to marine pollution, and are therefore outside of the AA framework. Accordingly, such features of the CWP Project have been taken into account when determining whether the CWP Project will give rise to likely significant effects on any European site, for the purposes of AA screening. Any such features are standard features of these works and have not been identified with the aim of reducing significant effects on those European sites.
- 33. When considering adverse effects on site integrity for the purposes of Stage 2 AA, mitigation measures may be proposed by the project proponent and / or required by the competent authorities in order to

Page 17 of 31



avoid the potential impacts identified in the AA, or to reduce them to a level where they will no longer adversely affect the integrity of a European site.

34. Where mitigation is required, this has been detailed within the relevant assessments of this NIS.

2.3.5 In-combination effects

- 35. Article 6(3) of the Habitats Directive requires that in-combination effects with other plans or projects are also considered. As set out in the Commission's 2018 Notice (EC, 2019), significance will vary depending on factors such as magnitude of impact, type, extent, duration, intensity, timing, probability, cumulative effects and the vulnerability of the habitats and species concerned.
- 36. In that context, plans or projects which are completed, approved but uncompleted, or proposed have been considered. EC (2019) also advises that 'as regards other proposed plans or projects, on grounds of legal certainty it would seem appropriate to restrict the in-combination provision to those which have been actually proposed, i.e. for which an application for approval or consent has been introduced'.
- 37. In seeking to provide a comprehensive account of potential impacts that may arise in combination with other projects, the CWP Project has broadened the scope to include projects that have submitted an application or have a scoping report in the public domain. In the case of other 'Phase 1 projects', CWP Project has sought to provide a detailed assessment through the sharing of information with those other projects, despite those projects not having a formal scoping or application available, and there being uncertainty with regards how or to what design certain projects may be delivered. In so doing, the CWP Project application goes beyond best practice and provides a level of in-combination assessment which can be taken as appropriate, contemporary and precautionary.



3 STAKEHOLDER ENGAGEMENT

- 38. Consultation with regard to the NIS has been undertaken with statutory and non-statutory organisations to inform the approach to, and scope of, the assessment.
- 39. The key elements to date have included Environment Impact Assessment (EIA) scoping, consultation events and ongoing topic-specific meetings with key stakeholders. The feedback received throughout this process has been considered in preparing the NIS. Full details of consultation undertaken for the CWP Project is presented in the **Planning Documents** and **Public and Stakeholder Consultation Report**.
- 40. **Table 3-1** provides a summary of the key matters raised during the consultation process relevant to the NIS and details how these issues have been considered in the production of this NIS.

Consultee	Comment	How issues have been addressed	
General			
NPWS Approach to NIS Meeting Oct 2023	General approach and layout of NIS agreed with NPWS and CWP.	NIS laid out as required by NPWS, i.e. site-by-site assessment utilising summary tables to detail assessment against conservation objectives.	
Benthic and intertidal ecology			
NPWS Topic-specific meeting (post submission of Offshore Scoping Report) 15 April 2021	Method to determine spatial extent of assessment (Source- Pathway-Receptor model) and impacts to be considered were described. NPWS agreed with the approach and impacts to be considered; however, requested further consultation when the CWP Project design is known.	Assessment undertaken in line with proposed approach for identification of relevant designated sites, with refinement to impacts based upon final design. Further consultation undertaken (see 'General' above). Final detail of the CWP Project design is within the CWP Project application, and consultation will take place through the formal application process.	
Marine mammals			
NPWS Scoping response 14 May 2021	NPWS requested that all Irish marine mammal SACs be included at the AA screening stage.	All Irish marine mammal SACs have been included at the AA screening stage (contained within Volume 3 of this document).	
NPWS Scoping response 14 May 2021	NPWS advised that no potential impacts should be scoped out (of the EIA).	All potential impacts identified in the EIA have been included in the AA process (see Volume 3 of this document).	

Table 3-1 Consultation responses relevant to NIS

Page 19 of 31



Consultee	Comment	How issues have been addressed	
Marine Institute (MI) Scoping response 6 May 2021	The MI advised that electromagnetic fields (EMF) should be scoped in (to the EIA).	EMF has been included as a potential impact in the AA documentation and in the EIAR (Volume 4 for fish and benthic impacts, and marine mammals, and Volume 5 for ornithology).	
Offshore and intertidal ornithology			
NPWS Topic-specific meeting (post Offshore Scoping Report submission) 17 May 2021	Proposed scope of AA screening as set out in Offshore Scoping Report discussed and described. NPWS agreed with the approach described; however, requested further consultation when the CWP Project design is known.	Agreement noted. AA screening undertaken on precautionary basis and considers at least those sites described in scoping. Further refinement of impacts has occurred. Further consultation undertaken (see 'General' above).	
		design is within the CWP Project design is within the CWP Project application, and consultation will take place through the formal application process.	
Migratory fish			
Sea Fisheries Protection Authority (SFPA) Topic-specific meeting 11 May 2021	SFPA agreed with the approach and scope of the AA.	Agreement noted.	
Inland Fisheries Ireland (IFI) Topic-specific meeting 14 September 2021	IFI agreed with the approach and scope of the AA. Suggestion to look at the Agri- Food and Biosciences Institute (AFBI) COMPASS project for salmon migration data.	Agreement noted. COMPASS project paper (Barry <i>et al.</i> 2020) included in review of salmon migration route data sources.	
NPWS Scope of AA screening provided in Offshore Scoping Report.	No comments raised.	AA screening undertaken on precautionary basis. Further refinement of impacts has occurred. Further consultation undertaken to determine approach to NIS (see 'General' above).	
Onshore ecology			
NPWS 21 January 2022	NPWS agreed with the approach of the AA; however further consultation was requested when	Further consultation undertaken (see 'General' above). Final detail of the CWP Project design is within the CWP Project	

Page 20 of 31



Consultee	Comment	How issues have been addressed
	the CWP Project design is finalised.	application and consultation will take place through the formal application process.
IFI 18 June 2021	 IFI had the following comments: Cumulative impacts should take cognisance of the Dublin Port Maintenance Dredging Programme and planned strategic infrastructure projects. Trenchless technique preferred for the cable installation. In-stream works in inland fisheries waters should only take place during the period July to September. Detailed method statement to document methods to reduce the risk to the local environment. Queried whether some postworks monitoring is anticipated to show no impact of the works on the environment. 	Dublin Port Maintenance Dredging Programme and strategic infrastructure projects included in in-combination assessment where relevant (see Volume 6 of this NIS). Final detail of the CWP Project design is within the CWP Project application. However, no works in the freshwater environment are planned and trenchless approaches were considered where possible. No monitoring required for the purposes of the NIS; however, EIA-specific monitoring is captured within the Fish and Shellfish EIAR chapter (Chapter 9 Fish, Shellfish and Turtle Ecology) and associated EIAR documentation.
Onshore and intertidal ornithology	<u>.</u>	
NPWS 26 October 2022	 Discussion regarding onshore ornithology, including breeding tern disturbance survey. Screening requirements for construction phase. Shading and perching predators during the operational phase. 	Comments from NPWS have been taken into account in the preparation of this AA screening report. Further consultation to take place.
Review of Method Statement Offshore Wind Ornithology Assessment for East Coast Phase 1 Projects – National Parks and Wildlife Service (NPWS) November 2023	NPWS Published the summary review of the Method Statement - Offshore Wind Ornithology Assessment for East Coast Phase 1 Projects.	The response was received and the feedback has informed the assessment where applicable, notably the running of CRM with revised flight speeds for Kittiwake (Appendix 10.7 Kittiwake Collision Risk Modelling). The approaches used in this chapter agree with this by: - Using sCRM to inform collision impacts, and specifically using site-specific



Consultee	Comment	How issues have been addressed
		flight height data to inform these CRMs.
		Using a matrix approach to inform disturbance and displacement impacts in the absence of individual-based models being developed for use in Ireland.
BirdWatch Ireland October 2022	Follow up meeting request to present the ornithology baseline data collected for the project and to discuss potential mitigation and monitoring strategies.	No feedback received.
BirdWatch Ireland (June 2024)	Meeting to discuss approach to assessment within the EIAR and NIS, key mitigations and initial conclusions, and proposed monitoring.	Meeting was to provide overview and update, limited updates required following discussion.



4 **PROJECT DESCRIPTION**

- 41. The CWP Project comprises the following main components:
 - The Generating Station, which comprises the wind turbine generators (WTGs), inter-array cables (IACs) and interconnector cables;
 - The offshore transmission infrastructure (OfTI) which comprises the offshore substation structures (OSSs) and offshore export cables;
 - The landfall, which describes the point at which the offshore export cables are brought onshore and connected at transition joint bays (TJBs) to the onshore export cables. For the CWP Project, the landfall works include the installation of the offshore export cables within Dublin Bay out to approximately 4 km offshore, where water depths are too shallow for conventional cable lay vessels to operate; and
 - The onshore transmission infrastructure (OTI), which comprises the onshore export cables, the onshore substation and associated infrastructure.
- 42. A summary of the CWP Project main components is presented in this **Section**. Full details of the CWP Project can be found in the **Chapter 4 Project Description** of the EIAR, which has been submitted as part of the development consent application.
- 43. The planning application boundary for the CWP Project is provided in Figure 4-1. This includes the entire footprint of the generating station, OfTI and OTI, and the associated temporary works for which planning consent is being sought. Figure 4-2 provides a focussed presentation of the array site, followed by Figure 4-3 which provides a focussed presentation of the landfall and onshore development area.





field	Dunböyne	Swords 6°W	/				
	Maynooth Blanch Lucan	Bubling Howth I					
		lälkin illaght Dún Läogh yre					Ŗ
	Sallińs Naas						3°16
Tage	Blessington Ballymore Fustace Wicklow	Greystones	_	_ \			5
]]	National Park	KT/AN	Z				
		SAM !!					
Baltingl	ass and a	Wicklow	۔ ۵۵		Man	(and)	
	20 km		con	tributors, C	CC-B	Y-SA	
L	eaend						
Ļ	Pla	nning applica	tior	i bounda	ry		
L	On:	shore substat	ion	site			
	Poo	olbeg 220kV s	sub	station			
-	— Tra	nsition joint b	ay				
_	— Hig	h water mark					
	Ū.						
	/	Project:		Contract	or		
co	dling	Codling Wind F	Park	Website:	01.		
~~		0					
		Figure	e 4.	3			
	O	nshore devel	орі	- ment are	a		
			•				
CW	P doc number			08 01 MA	D 17(17	
CW	P doc. number:	CWP-CWP-E		-08-01-IVIA	P-1/(57	
Inte PB - I	rnal descriptive	code: PL - FUT.SS.ESBNHWM -	S	ize: A3		CRS:	05000
(OSN	1EIAR.Vol.03.Ch.04	+IG.03)	S	cale: 1:6,000	' 	EPSG	20830
Rev.	Final for issue	Updates		Date 2024/08/15	By JM	Chk'd CD	App'd ES

4.1 Generating station

- 44. The design parameters and installation methods for the components of the generating station, which comprises the WTGs, IACs and interconnector cables, are identified and described in full within **Chapter 4 Project Description** of the EIAR. A summary of the generating station project components is provided below. These parameters form the basis for the assessment of impacts presented in this NIS.
- 45. The CWP Project will comprise either WTG Layout Option A, based on a 250 m rotor diameter WTG, or WTG Layout Option B, based on 276 m rotor diameter WTG. These options comprise the following associated offshore infrastructure:

4.1.1 WTG Layout Option A

- 75 WTG monopile foundations;
- 75 WTGs comprising tower structures, nacelles and rotors with associated access arrangements;
- Scour protection at 75 WTG locations;
- IACs linking the WTGs to the OSSs;
- Interconnector cables linking the OSSs together; and
- Cable protection for the IACs and interconnector cables.

4.1.2 WTG Layout Option B

- 60 WTG monopile foundations;
- 60 WTGs comprising tower structures, nacelles and rotors with associated access arrangements;
- Scour protection at 60 WTG locations;
- IACs linking the WTGs to the OSSs;
- Interconnector cables linking the OSSs together; and
- Cable protection for the IACs and interconnector cables.
- 46. Each of the main components are described in more detail in **Chapter 4 Project Description** of the EIAR, along with the approach to construction and temporary construction requirements.

4.2 Offshore transmission infrastructure

- 47. The design parameters and installation methods for the components of the OfTI which comprises the OSSs, interconnector cables and offshore export cables are identified and described in full within **Chapter 4 Project Description** of the EIAR. A summary of the OfTI project components is provided below. These parameters form the basis for the assessment of impacts presented in this NIS.
- 48. As set out in **Chapter 4 Project Description** of the EIAR, the OfTI comprises the OSSs including topside, foundation and associated tertiary structures, and the offshore export cables providing connection to the grid, and associated cable protection. The OTI (including the onshore export cables and onshore substation) is described in **Section 4.4** of this document.
- 49. The offshore export cable corridor (OECC) for the CWP Project covers an area of approximately 43 km² and connects the array site with the landfall location at Poolbeg. Three offshore export cables will be installed within the OECC.
- 50. Each of the main components are described in more detail in **Chapter 4 Project Description** of the EIAR, along with the approach to construction and temporary construction requirements.

Page 27 of 31

4.3 Landfall

- 51. The landfall, on the southern edge of Poolbeg Peninsula, describes the point at which the offshore export cables (forming part of the OfTI) are brought onshore and connected at three transition joint bays (TJBs) to the onshore export cables (part of the onshore transmission infrastructure (OTI)).
- 52. As set out in **Chapter 4 Project Description** of the EIAR, the landfall represents a complex interaction between land and the marine environment. For the CWP Project, this includes the installation of the offshore export cables within the shallow waters and intertidal area of Dublin Bay. Therefore, the Applicant has included the following activities in the scope of 'landfall works', extending from the TJB onshore to approximately 4 km offshore:
 - Ducted offshore export cable laying, referred to as the landfall cable ducts, extending from the TJBs onshore to the intertidal area, just below the HWM;
 - Ducted offshore export cable laying, referred to as the intertidal cable ducts, from the seaward extent of the landfall cable ducts, just below the HWM to approximately 350 m from the HWM; and
 - Non-ducted offshore export cable laying in the intertidal area, from approximately 350 m from the HWM to the limits of vessel operability (approximately 4km from the HWM). This area is referred to as the transition zone, as installation methods transition from land-based techniques to shallow water and marine based.
- 53. Each of the main components are described in more detail in **Section 4.5 Landfall** in **Chapter 4 Project Description** of the EIAR, along with the approach to construction and temporary construction requirements.

4.4 Onshore transmission infrastructure

- 54. The design parameters and installation methods for the OTI, which comprises the TJBs, the onshore export cables, the onshore substation and associated infrastructure, are identified and described in full within **Chapter 4 Project Description** of the EIAR. A summary of the OTI project components is provided below. These parameters form the basis for the assessment of impacts presented in this NIS.
- 55. As set out in **Chapter 4 Project Description** of the EIAR, three 220kV high voltage alternating current (HVAC) onshore export cable circuits will connect to the offshore export cables at the TJBs and will transfer the electricity onwards to the onshore substation.
- 56. Each cable circuit will comprise three cores with copper or aluminium conductors and insulation / conductor screening. As with the offshore export cables, the cable bundle will also include a fibre optic communications cable for OWF monitoring and control and a cable for earthing.
- 57. The onshore export cables between landfall and the onshore substation site will be installed within an underground tunnel, c. 0.7 km in length. The tunnel will extend from temporary construction compound (Compound A), near the landfall, to the onshore substation site.
- 58. Two tunnel drives are expected to be required to complete the works:
 - The first will comprise a tunnel driven from a launch shaft at the onshore substation site for a distance of 330 m to the reception shaft on the Shellybanks Road; and
 - The second will comprise a tunnel driven from a launch shaft within the Compound A for a distance of 410 m to the reception shaft on Shellybanks Road.
- 59. The onshore substation will be a gas-insulated switchgear (GIS) design, where the high voltage (HV) equipment is designed to be insulated and cooled by pressurised gas.
- 60. In summary, the onshore substation will include:

Page 28 of 31

- Perimeter structures including upgraded revetments and coastal retaining walls;
- Land reclamation for the Electricity Supply Board (ESB) GIS building;
- Raised site platform;
- One GIS building;
- One ESB GIS building;
- One ESB medium voltage (MV) building;
- Three Shunt reactors (incorporated within the GIS building);
- One Statcom building;
- Three Harmonic filters;
- Upgrades to the existing access road from Pigeon House Road to the site entrance;
- New bridge to provide vehicle access across the Dublin Waste to Energy Plant cooling water discharge channel;
- New internal access road layout within the site boundary;
- Drainage infrastructure; and
- Security and lighting.
- 61. A temporary construction compound for the site (Compound C) will be located within the Dublin City Council (DCC) land to the southeast of the onshore substation site, adjacent to the former Pigeon House Hotel.
- 62. Contractor welfare facilities will be located in this compound, as well as some material storage space. Compound A will have a larger area for material storage and will be the location for the temporary storage of large elements.
- 63. Three ESBN network cables will connect from the onshore substation to the Poolbeg 220 kV substation, which will then transfer the electricity onwards to the Irish electricity grid. The cable circuits will comprise the same structure as detailed above for the onshore export cables. A horizontal directional drilling (HDD) / open cut technique will be used to install these cables.
- 64. Other temporary construction compounds include Compound B and Compound D. These will serve as additional laydown / storage areas for the construction activities. Each of the main components are described in more detail in **Chapter 4 Project Description** of the EIAR, along with the approach to construction and temporary works requirements.
- 65. As set out in **Chapter 4 Project Description** of the EIAR, the ownership of the OfTI and OTI will be transferred to, and operated by, EirGrid.

4.5 **Construction programme**

- 66. The construction programme for the CWP Project is dependent on a number of factors which may be subject to change, including the determination of the application for development consent and the availability and lead-in times associated with procurement and installation of project components.
- 67. An indicative construction programme (**Table 4-1**) for the CWP Project is presented below, which assumes construction over a four-year period, including commissioning.
- 68. Construction of the offshore components for the CWP Project will be completed in a number of stages. These may not necessarily be consecutive, and some flexibility is required in the construction process to account for changing construction programmes due to, for example, fabrication delays or vessel availability. Offshore construction will take place 24 hours per day.
- 69. Construction of the onshore components for the CWP Project will commence with the onshore substation preliminary works, including the establishment of access roads, site preparation and temporary compounds.

Page 29 of 31

- 70. Onshore construction activity will mostly take place during daytime hours from Monday to Friday (7am to 7pm) and a half day on Saturdays (up to 2pm).
- 71. Evening, night-time and Sunday working will be required during certain periods to facilitate landfall works at low tide, tunnelling and horizontal directional drilling (HDD) activities onshore that, due to their nature, cannot be limited to daytime hours only. Seasonal restrictions will be in place for landfall works and at the onshore substation (see EIAR **Chapter 4 Project Description** for more details).

Indicative construction programme	Year 1		Year 2		Year 3		Year 4		Year 5	
Onshore substation construction and commissioning										
Landfall works (Phase 1)										
Landfall works (Phase 2)										
Onshore export cable installation										
WTG and OSS foundation installation (incl. scour protection)										
WTG installation										
OSS topside installation and commissioning										
IAC and interconnector cable installation										
Offshore export cable installation										
WTG commissioning										

Table 4-1 Codling Wind Park construction timeline

Page 30 of 31

4.6 **Operations and maintenance (O&M)**

- 72. The operational lifetime of the CWP Project is expected to be 25 years, commencing on full commercial operation of the project.
- 73. As set out in in **Chapter 4 Project Description** of the EIAR, the anticipated O&M activities are based on best available information at the time of writing as well as regulatory requirements and industry best practice.
- 74. Reliability and ease of maintenance are both crucial design considerations that are critical to address at the early stage of the project to both minimise the maintenance requirements, and safely facilitate maintenance, when required. The primary objectives of O&M will be to:
 - Operate the offshore project components in a safe manner, causing minimal impact on the environment;
 - Effectively convert wind energy to electricity and accurately measure and deliver electricity for sale;
 - Maximise output while controlling operating expense;
 - Safeguard the mechanical integrity of all facilities, substructures and installations;
 - Maximise the use of appropriate technologies and processes to improve the efficiency, safety and
 effectiveness of all operations, transport technology and maintenance activities; and
 - Minimise manning and personnel transport to appropriate levels (as far as is reasonably practicable).
- 75. At the time of writing an Operation and Maintenance Base (OMB) location is undefined, pending identification of a suitable site, however an OMB at Wicklow Port remains the preferred solution for the CWP Project. An OMB at Wicklow Port is also considered within the Cumulative Effects Assessment (CEA) longlist of other development, allowing for topic specific consideration of the likelihood of incombination effects with the CWP Project considering the currently available information and its proximity to the CWP Project. It provides a representative location for O&M activities associated with the CWP Project, which are assessed within the EIA.

4.7 Decommissioning

- 76. As set out in **Chapter 4 Project Description** of the EIAR, the term of the MAC for the CWP Project is 45 years. The operation lifetime is expected to be 25 years, commencing on full commercial operation of the project. At the end of this 25-year period, the CWP Project could be repowered or decommissioned. If repowered during the period of the MAC, this would be subject to a new consent application supported by an EIAR.
- 77. The requirement to rehabilitate the maritime area of the CWP Project is a condition of the MAC, under which the Applicant is required to prepare a rehabilitation schedule for approval by the competent authority and set aside funds for the purposes of rehabilitation. This rehabilitation schedule will be updated as required and will consider the latest technological developments, legislation and environmental requirements at the time that the work is due to be carried out.
- 78. For the purposes of the current consenting framework and as a basis for this NIS, a **Rehabilitation Schedule** has been prepared based on the current technological and regulatory framework. This is supported by additional information provided in EIAR **Chapter 4 Project Description** on proposed decommissioning activities for components of the CWP Project that are not subject to the MAC.
- 79. Overall the impacts associated with decommissioning are expected to be equivalent to, or smaller than, those associated with the proceeding phases of development.

Page 31 of 31