codling wind park

Environmental Impact Assessment Report

Volume 4

Appendix 26.1 Cumulative Effects Assessment


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Abbreviations

Abbreviation	Term in Full
BESS	Battery energy storage system
CEA	Cumulative Effects Assessment
CWP	Codling Wind Park
CWPL	Codling Wind Park Limited
DAC	Designated Active Company
DPC	Dublin Port Company
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EPA	Environmental Protection Agency
ESBN	Electricity Supply Board Networks
EU	European Union
GIS	Geographic Information System
HDD	Horizontal directional drilling
IGB	Irish Glass Bottle
kV	Kilovolt
MAC	Maritime Area Consent
MW	Megawatt
O&M	Operations and maintenance
OCGT	Open Cycle Gas Turbine
ORESS	Offshore Renewable Electricity Support Scheme
OTI	Onshore Transmission Infrastructure
OWF	Offshore Wind Farm
PINS	Planning Inspectorate
SDZ	Strategic Development Zone
SID	Strategic Infrastructure Development

Definitions

Glossary	Meaning
the Applicant	The developer, Codling Wind Park Limited (CWPL).
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.
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.
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.
onshore development area	The entire footprint of the OTI and associated temporary works that will form the onshore boundary for the development consent application.
O&M phase	This is the period of time during which the CWP project will be operated and maintained.
Strategic Infrastructure Development	Strategic Infrastructure Development includes development which would: - contribute significantly to meeting any of the objectives of the National Planning Framework, or - contribute significantly to meeting any regional spatial and economic strategy for an area, or - have a significant effect on the area of more than one planning authority.

APPENDIX 26.1 CUMULATIVE EFFECTS ASSESSMENT

1 Introduction

1. Codling Wind Park Limited (hereafter 'the Applicant') is proposing to develop the Codling Wind Park (CWP) Project, a proposed offshore wind farm (OWF) located in the Irish Sea approximately 13–22 km off the east coast of Ireland, at County Wicklow.

2. The Environmental Impact Assessment Report (EIAR) for the CWP Project provides the decision-maker, stakeholders and all interested parties with the environmental information required to develop an informed view of any likely significant effects resulting from the CWP Project, as required by the European Union (EU) Directive 2011/92/EU (as amended by Directive 2014/52/EU) (the EIA Directive). These provisions are transposed into Irish legislation in Part X of the Planning and Development Act 2000, as amended, and in Part 10 of the Planning and Development Regulations 2001, as amended.

3. A fundamental component of the EIA is to consider and assess the potential for cumulative effects of the project with other projects, plans and activities (hereafter referred to as 'other development').

4. The Environmental Protection Agency (EPA) Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2022) defines cumulative effects as:

> *"The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.*
>
> *While a single activity may itself result in a minor impact, it may, when combined with other impacts (minor or insignificant), result in a cumulative impact that is collectively significant. For example, effects on traffic due to an individual industrial project may be acceptable; however, it may be necessary to assess the cumulative effects taking account of traffic generated by other permitted or planned projects."*

5. This appendix presents the findings of the Cumulative Effects Assessment (CEA) for Material Assets: Built Services, which considers the residual effects presented in **Chapter 26 Material Assets - Built Services**, alongside the potential effects of other proposed and reasonably foreseeable development. Cumulative effects are considered in this document across the construction and operation and maintenance phases of the CWP Project.

6. The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in **Chapter 26 Material Assets - Built Services**. It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.

2 CEA methodology

2.1 Guidance

7. This section summarises the approach to the assessment of cumulative effects for the CWP Project. Further details on the approach to the CEA is provided in **Appendix 5.1 Cumulative Effects Assessment Methodology**.

8. The principal guidance document that has informed the approach to the CEA is the Planning Inspectorate (PINS) for England 'Advice Note 17: Cumulative Effects Assessment' (PINS, 2019), which provides a four-stage process for the assessment of cumulative effects which has been applied here.

9. This guidance has been applied for a number of both OWF and non-OWF projects in the UK, and is considered to provide developers with a structured approach to assessing cumulative effects. The guidance is also regularly applied in Ireland for large scale projects, noting that there is no single, industry standard approach to CEA in Ireland which often varies between projects.

10. In developing the CEA methodology, EPA Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2022) and Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions (European Commission, 1999) has also been considered.

2.2 Consultation

11. Stakeholder and regulator feedback received during the consultation process that is relevant to the Material Assets: Built Services assessment is provided in **Chapter 26 Material Assets - Built Services**. No feedback specific to the CEA for Material Assets: Built Services has been received.

12. Project wide consultation has been undertaken with the major utility companies, regarding the interface with existing utilities and measures to protect these.

2.3 Identification of 'other development'

13. Stage 1 of the process involved establishing the long list of other development with the potential to result in cumulative effects with the CWP Project. This included all projects that result in a comparative effect that is not intrinsically considered as part of the existing environment and is not limited to other OWF projects.

14. The long list of other development (presented in **Appendix 5.1 Cumulative Effects Assessment Methodology**) was then subject to additional screening criteria to establish a short list of other development for each topic. It should be noted that the approach to the CEA attempts to incorporate an appropriate level of pragmatism. Only projects which are well described and sufficiently advanced, with sufficient detail available with which to undertake a meaningful and robust assessment, have been screened into the CEA.

15. In accordance with PINS Advice Note 17, each development considered alongside the CWP Project as part of the CEA has been assigned to a tier, reflecting their current status in the planning and development process.

16. The purpose of the tiered approach is to give consideration to the level of certainty that a cumulative project will be built and therefore contribute to cumulative effects. For example, there can be greater certainty that other development approved and under construction are likely to contribute to cumulative effects, whereas other development at early phases of development (i.e. pre-planning) are less likely to proceed to construction and contribute to cumulative effects. Furthermore, sufficient detail about these projects is unlikely to be available with which to undertake a detailed cumulative assessment.

17. The proposed tiering structure is presented in **Table 1** and described in more detail in **Appendix 5.1 Cumulative Effects Assessment Methodology**. The tiers are listed in descending order of level of detail likely to be available (and, correspondingly, certainty of effects arising).

Table 1 Tiered structure for other development considered for CEA (modified from PINS Advice Note 17 (PINS, 2019))

Tier	Description
Tier 1	• Under construction; • Permitted applications, but not yet implemented; • Offshore applications submitted six months or more in advance of the CWP Project planning application, but not yet determined; and • Onshore applications submitted six months or more in advance of the CWP Project planning application, but not yet determined.
Tier 2a	• Offshore projects in receipt of a Maritime Area Consent (MAC) and an Offshore Renewable Electricity Support Scheme (ORESS) contract.
Tier 2b	• Offshore projects in receipt of a Maritime Area Consent (MAC); • Offshore Projects in the public domain where an EIA scoping report has been issued; and • Onshore Projects in the public domain where an EIA scoping report has been issued.
Tier 3	• Projects in the public domain where an EIA scoping report has not been issued; and • Projects that have been identified in the relevant development plans and programmes, which set the framework for future development consents / approvals, where such development is reasonably likely to come forward.

3 CEA impact screening

18. The first step in the CEA for Material Assets: Built Services is the identification of which residual impacts assessed for the CWP Project alone have the potential for a cumulative impact with other development (described as 'impact screening'). This screening exercise is set out in **Table 2** below.

19. Only potential impacts assessed in **Chapter 26 Material Assets - Built Services** as 'Not Significant' or above are included in the CEA (i.e. those assessed as 'Imperceptible' are not taken forward as there is no potential for them to contribute to a cumulative effect).

20. In summary, **Table 2** shows that there is the potential for cumulative effects on **Material Assets - Built Services** as a result of the construction phase of the Onshore Transmission Infrastructure (OTI) and landfall, where there is potential for impact in terms of disruption to utility assets / services.

Table 2 Impacts and potential for cumulative effect

Impact	Potential for cumulative effect	Rationale
Construction		
Impact 1: Disruption to utility assets / services	Yes	The main potential for crossing existing utilities occurs along the onshore export cable and Electricity Supply Board Networks (ESBN) network cable routes. If construction works for other developments were to take place at the same time as the CWP Project, cumulative impacts may arise with overlapping installation works, works next to utilities or where utility diversions are required for both the development and the CWP Project. This could result in additional engagement with utility service providers and/or cumulative disruptions to a utility. The cumulative effect of potential disruption from other projects could increase the magnitude of the effect within the receiving environment.
Operation		
N/A	N/A	The potential for impact in terms of disruption to / demand for utility assets / services during the O&M phase has been scoped out of the Material Assets: Built Services impact assessment and therefore there is no CEA assessment related to the O&M phase. See **Section 26.7** 'Scope of the assessment' in **Chapter 26 Material Assets - Built Services**.
Decommissioning		
Impact 1: Disruption to utility assets / Services	No	The detail and scope of the decommissioning works for the CWP Project will be determined by the relevant legislation and guidance at the time of decommissioning. Project alone impacts during the decommissioning phase of the CWP Project are assessed in **Chapter 26 Material Assets - Built Services.** It is anticipated that the impacts will be no greater than those identified for the construction phase, and therefore no separate assessment of cumulative impacts during the decommissioning phase is presented within this CEA.

4 CEA 'other development' screening

21. The second step in the CEA for Material Assets: Built Services is the identification of the other development that may result in cumulative effects for inclusion in the CEA (described as 'project screening'). This information is set out in **Table 3** below, together with a consideration of the relevant details of each development, including the tier (see **Table 3**), proximity to the CWP Project development area, and a rationale for including or excluding from the assessment.

22. The other developments included in the table below are taken from the long list of other development (presented in **Appendix 5-1**). Information gathering for the other development screened in at Stage 2

of the CEA, along with a greater understanding of the potential effects of the CWP Project, has enabled further refinement of the short list.

23. In summary, the following other development will be assessed for potential cumulative effects with the CWP Project in relation to Material Assets: Built Services:

- Dublin Port Company - MP2 Project (CEA-1323, CEA-1328);
- Dublin Port Company (DPC) - Port and harbour activities and port development (CEA-0191);
- Dublin Port Company - Construction of a bridge (CEA-1339);
- Dublin Port Company 3FM Project (CEA-1348);
- Electricity Supply Board (ESB) / EirGrid - Poolbeg Generating Station / Battery Energy Storage System (BESS), Flexible Thermal Generation, Open Cycle Gas Turbine (OCGT) (Developer: ESB) (CEA-1336, CEA-1337, & CEA-1338) and Substation (Developer: EirGrid) (CEA-1346);
- ESB - Dublin Bay Power Station / OCGT, BESS and Flexible Thermal Generation (CEA-1327, CEA-1341 & CEA-1342);
- Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd – Redevelopment of former glass bottle site (CEA- 0333, CEA-0339, CEA-0387, CEA3003 and CEA-1354);
- Hammond lane Metal Company Ltd. - Construction of 2-storey building and non-ferrous metals recovery facility (CEA-1340);
- E D & F Man Liquid Products Ireland Limited - New Storage tank (CEA-1344);
- Codema - Dublin's Energy Agency - Dublin District Heating System Project (DDHS) (CEA-1347);
- EirGrid Programme of Works (CEA-1371);
- Ecocem Ireland Limited - Construction of plant (CEA-3002).

Table 3 Summary of other development screened into the CEA for Material Assets: Built Services

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Dublin Port Company Maintenance Dredging in Dublin Port CEA-0191 Planning ref.: FS007132	0 km	1	No	Dublin Port Company (DPC) need to carry out regular maintenance dredging of the navigation channel, basins and berthing pockets. Maintenance dredging campaigns are required approximately every 18 months. There is potential for a temporal overlap between the projects. However, a review of the available information has shown that there will be no spatial overlap in the project construction working areas. There is no risk of shared receptors in relation to Material Assets: Built Services. This development was not considered further.
Dublin Port Company MP2 Project CEA-1323 and CEA-1328 Planning ref: FS 006893 and ABP-304888-19	0 km	1	No	The MP2 Project is proposed on the northern side of Poolbeg, north of the River Liffey. The EIAR produced for the MP2 Project did not identify significant residual cumulative impacts on built service / utility receptors as a result of its construction and operational phases. There is potential for a temporal overlap between the projects. However, a review of the available information has shown that there will be no spatial overlap in the project construction working areas, and a low risk of shared receptors in relation to Material Assets: Built Services. This development was not considered further.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
ESB / EirGrid - Poolbeg Generating Station / Battery Energy Storage System (BESS), Flexible Thermal Generation, Open Cycle Gas Turbine (OCGT) (Developer: ESB) (CEA-1336, CEA-1337, & CEA-1338) and Substation (Developer: EirGrid) (CEA-1346) Planning Ref: 3625/20, 3624/20, 3137/23 and 4057/23.	0 km	1	Yes (CEA-1338 & CEA-1346)	• CEA-1336 – Assumed construction completed by 2026; • CEA-1337 – Assumed construction completed by 2026, data reviewed indicates commitment for the development to be in place for construction by October 2024. It has been assumed that these developments will be operational. There will be no spatial overlap in working areas and therefore no potential for cumulative impacts on utility assets. • CEA-1338 – Assumed in construction by 2026; • CEA-1346 – No data, however, assumed to be in construction by 2026, for completion prior to 2029. This is the Poolbeg 220kV substation that the CWP Project will connect into. There is potential for a temporal and spatial overlap between the construction phase of these projects and that of the CWP Project. If construction does overlap, concurrent construction activities could result in cumulative effects.
ESB Dublin Bay Power Station / OCGT, BESS and Flexible Thermal Generation CEA-1327, CEA-1341 & CEA-1342	0 km	1	Yes (CEA-1327)	• CEA-1327 – No data, assumed to be in construction. There is potential for a temporal overlap between the construction phase of this project and that of the CWP Project. If construction does overlap, concurrent

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Planning Ref: 3074/23, 3646/20 and 3647/20				construction activities could result in cumulative effects. • CEA-1341 – Assumed construction completed by 2026; • CEA-1342 – Assumed construction completed by 2026, data reviewed indicates commitment for the development to be in place for construction by October 2024. It has been assumed that these developments will be operational. There will be no spatial overlap in working areas and therefore no potential for cumulative impacts on utility assets.
Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd Redevelopment of former glass bottle site CEA-0333, CEA-0339, CEA-0387, CEA3003 and CEA-1354 Planning Ref: 3406/22, 4121/21, 3270/19, 3062/24 and 3207/21	0 km	1	No	Development of residential, office and mixed-use scheme at the former Irish Glass Bottle and Fabrizia sites at Poolbeg West. There is potential for a temporal overlap between the projects. However, a review of the available information has shown that there will be no spatial overlap in the project construction working areas, and a low risk of shared receptors in relation to Material Assets: Built Services. This development was not considered further.
E D & F Man Liquid Products Ireland Limited New storage tank	0.05 km	1	No	No EIAR or Environmental Report has been produced for the new storage tank project. The proposed storage tank (13.3 m x 16.3 m) is a small-scale project

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
CEA-1344 Planning Ref: 2804/19				and the permission for the new storage tank expires in August 2024. There is insufficient detail available about this project to undertake a meaningful cumulative effects assessment. Therefore, the project was screened out from further assessment.
Dublin Port Company Bridge over existing cooling water channel (superseded by CWP project proposals) CEA-1339 Planning Ref: 3711/18	0 km	1	No	This project refers to construction of a bridge over existing cooling water channel. Permission expires in September 2024. The installation of a bridge over the cooling water channel into the onshore substation is included as part of the OTI. The location mirrors that of this proposed bridge development. In the event that the CWP Project proceeds, this proposed bridge development would be superseded by the CWP Project proposals. This development was not considered further.
Hammond Lane Metal Company Ltd. Construction of 2-storey building and non-ferrous metals recovery facility CEA-1340 Planning Ref: 2130/18	0 km	1	No	This permission expired in June 2023. This project is likely to already have been constructed and be part of the baseline. No EIAR or Environmental Report was submitted with the application. It is assumed that the construction phase of the project will not overlap and the project in question is of small scale (i.e., 10m x 40 m). There is insufficient detail available about this project to undertake a meaningful cumulative effects assessment. This development was not considered further.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
Dublin Port Company 3FM Project CEA-1348 Planning Ref: N/A	0 km	1	Yes	The 3FM Project is the third and final Strategic Infrastructure Development (SID) Project needed to deliver the capacity objectives of the Dublin Port Masterplan 2040. The project is intended to provide the additional infrastructure for freight required in the unitised modes (Ro-Ro and Lo-Lo). Key components of this project will include the Southern port access road (SPAR). There is potential for a temporal overlap between the construction phase of this project and that of the CWP Project. If construction does overlap, concurrent construction activities within 50 m of the CWP Project onshore development area could cause cumulative effects.
Codema – Dublin's Energy Agency Dublin District Heating System Project (DDHS) CEA-1347 Planning Ref: N/A	0 km	3	No	The Dublin District Heating System (DDHS) will be a thermal energy network that uses energy from waste heat and distributes it as hot water through insulated dual (supply and return) pipelines to homes and business for space heating, hot water and industrial purposes. It is understood that this project will be located within the Poolbeg peninsula, potentially in proximity to Construction Compound A. However, this project is not yet submitted for planning consent. There are insufficient details available about this project to undertake a meaningful cumulative effects assessment. Therefore, the project is screened out from further assessment.

Development	Distance from onshore development area (km)	Tier	Included in the CEA (Yes/No)	Rationale
EirGrid Programme of Works CEA-1371 Planning Ref: N/A	0 km	3	No	Works are required to upgrade Dublin City's electricity infrastructure. This includes the installation of 50 km of cables across the city. This will include underground cable routes, some of which will link to the Poolbeg ESB Poolbeg Generating Station. Final route technologies have not yet been confirmed and the project has not yet been submitted for planning consent. There are insufficient details available about this project to undertake a meaningful cumulative effects assessment. Therefore, the project is screened out from further assessment.
Ecocem Ireland Limited Construction of plant CEA-3002 Planning Ref: 3041/24	0 km	1	Yes	Construction of silos, compressor room, cooling room, pump room, retaining walls, new fencing, new gates and revision of car park layout. Also includes for retention for silos, laboratory and offices at existing Ecocem facility within the Poolbeg Peninsula. An AASR and EIAR Screening Report and SW Management Plan is currently being sought for this planning application by DCC. There is potential for a temporal and spatial overlap between the construction phase of these projects and that of the CWP Project. If construction does overlap, concurrent construction activities could result in cumulative effects.

5 Assessment of cumulative effects

5.1 Construction phase

5.1.1 Cumulative impact 1: Disruption to utility assets / services

24. The CWP Project may result in a temporary disruption to utility assets / services during the construction phase. Given the proximity of the CWP Project to the DPC 3FM Project, the ESB onshore energy generation projects (CEA-1338, CEA-1346, CEA-1327) and the Ecocem Project (CEA3002) (listed in **Table 3** above), there is potential for a cumulative increase in potential disruption resulting in a temporary loss of services where project timelines overlap.

25. DPC intends to bring forward the 3FM project for planning consent, the third and final strategic infrastructure development (SID) project needed to deliver the capacity objectives of the Dublin Port Masterplan 2040, and to provide additional infrastructure within the port. A waterside turning circle is also proposed as part of the 3FM Project, adjacent to the onshore substation site. The 3FM project is concentrated on Dublin Port lands on the Poolbeg Peninsula with a construction programme that will span over a decade and that will coincide that of the CWP Project.

26. The ESB onshore energy generation projects are assumed to be in construction, with elements which may coincide that of the CWP Project, including the Poolbeg 220kV substation (CEA-1346) that the CWP Project will connect into. These projects are intended to provide additional energy infrastructure and are primarily concentrated to lands within the Poolbeg Generating Station complex and the Dublin Bay Power Generating Station, both situated on Pigeon House Road.

27. The Ecocem Project includes for the construction of additional structures and services within and adjacent to the existing site.

28. Key construction phase interfaces between the other developments with the CWP Project would be on the Shellybanks Road and Pigeon House Road, and at the onshore substation.

29. However, the CWP Project, the DPC 3FM projects, the ESB projects and the Ecocem project will implement appropriate mitigation measures which will avoid or reduce the potential for impact of disruption on utility assets / services. The CWP Project is currently engaging with DPC and ESB stakeholders and it is expected that this would continue during the construction phase. Furthermore, no excavations to facilitate the crossing of existing utility infrastructure will take place without prior consultation with relevant utility asset owners / service providers.

30. It is not considered necessary that additional mitigation measures other than the primary mitigation and additional mitigation already proposed in **Section 26.9** and **Section 26.10 of Chapter 26 Material Assets - Built Services** would be required.

31. Therefore, based on the predicted level of effect (Slight) and no additional mitigation required, the residual effect significance remains as set out above – **Slight**.

6 CEA summary

32. This CEA, which supports **Chapter 26 Material Assets - Built Services**, has assessed the potential cumulative effects on Material Assets: Built Services from the construction phase of the CWP Project alongside other development.

33. In summary, the CEA for **Material Assets - Built Services** does not identify any significant cumulative effects resulting from the CWP Project alongside other development.