



codling
wind park



Environmental Impact Assessment Report

Volume 4

Appendix 29.1 Cumulative Effects Assessment



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Abbreviations

Abbreviation	Term in full
ABR	Alexandra Basin Redevelopment
CEA	Cumulative Effects Assessment
CWP	Codling Wind Park
DPC	Dublin Port Company
EIAR	Environmental Impact Assessment Report
ESB	Electricity Supply Board
EPA	Environmental Protection Agency
EU	European Union
HWM	High water mark
IE	Industrial emissions
LO-LO	Load on – load off
OECC	Offshore export cable corridor
OfTI	Offshore transmission infrastructure
ORESS	Offshore Renewable Electricity Support Scheme
OTI	Onshore transmission infrastructure
OWF	Offshore wind farm
RO-RO	Roll on – roll off
SDZ	Strategic Development Zone
SID	Strategic Infrastructure Development
TJB	Transition joint bays
WTG	Wind turbine generator

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.
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.
export cables	The cables, both onshore and offshore, that connect the offshore substations with the onshore substation.
gas insulated switchgear (GIS)	The onshore substation will be a gas insulated (GIS) switchgear design, where the high-voltage (HV) equipment is designed to be insulated and cooled by pressurised gas.
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.
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).
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 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.
onshore export cables	The physical onshore cables that connect the offshore substations with the onshore substation.
onshore transmission infrastructure (OTI)	The onshore transmission assets comprising the TJBs, onshore export cables and the onshore substation.
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 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.
parameters	Set of parameters by which the CWP Project is defined and which are used to form the basis of assessments.
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 ESB Networks substation that the ESN network cables connect into, from the onshore substation. This substation will then transfer the electricity onwards to the national grid.
population	Population, in terms of EIA, refers to people who live, work or visit the study area. It is a broad-ranging topic and addresses the existence, activities and well-being of people as groups or 'populations'.
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.

APPENDIX 29.1 CULULATIVE 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) which is 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 population, which considers the residual effects presented in **Chapter 29 Population** alongside the potential effects of other proposed and reasonably foreseeable developments. 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 29 Population**. 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) have also been considered.

2.2 Consultation

11. Stakeholder and regulator feedback received during the consultation process that is relevant to the population assessment is provided in **Chapter 29 Population**. No feedback specific to the CEA for population has been received.

2.3 Identification of 'other development'

12. 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.
13. The long list of other development (presented in **Chapter 29 Population, 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.
14. 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.
15. 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.
16. The proposed tiering structure is described in **Table 1**. 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Offshore projects in receipt of a Maritime Area Consent (MAC) and an Offshore Renewable Electricity Support Scheme (ORESS) contract.
Tier 2b	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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

17. The first step in the CEA for population 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 **Table 2** below.
18. Only potential impacts assessed in **Chapter 29 Population** 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).
19. In summary, **Table 2** shows that there is the potential for cumulative effects on population, in terms of recreational receptors.

Table 2 Impact screening for residual effects

Impact	Potential for cumulative effect	Rationale
Construction		
Onshore		
Impact 1: Impacts on onshore and nearshore recreational receptors during the construction of the OTI and landfall.	Yes	The OTI and landfall works will result in impacts to some nearshore and onshore recreational receptors. The cumulative effects of construction activities associated with other developments in relatively close proximity could increase the magnitude of effect at these receptors. This impact has been screened in.
Impact 2: Impact on the tourism economy during the construction phase of the offshore infrastructure	No	<p>The residual effect associated with the construction of the offshore infrastructure is Not Significant, which is not significant in EIA terms.</p> <p>The other Phase 1 developments were not submitted for planning at the time of writing. There is not sufficient information to undertake a meaningful assessment.</p> <p>However, given that this impact is associated with the construction phase (short-term nature), it is not expected that the other developments would cumulatively result in a change of magnitude of impact and it has not been considered further.</p>
Impact 3: Economic effects associated with construction of the CWP Project	No	<p>The residual effect associated with the construction of the offshore infrastructure is Moderate-Slight positive, which is not significant in EIA terms.</p> <p>The other Phase 1 developments were not submitted for planning at the time of writing. There is not sufficient information to undertake a meaningful assessment.</p> <p>However, given that this impact is associated with the construction phase (short-term nature) and also positive, it is not expected that other developments would cumulatively result in a change of magnitude of impact and it has not been considered further.</p>
Operation and maintenance		
Impact 1: Impacts on recreational receptors associated with the O&M phase of the offshore infrastructure	Yes	<p>This impact relates to potential O&M phase impacts from the offshore infrastructure on recreational receptors.</p> <p>This section of the main assessment, in Chapter 29 Population references out to the findings of topic specific assessments, where these receptors have been considered. This includes:</p> <ul style="list-style-type: none"> • Chapter 15 Seascape Landscape and Visual Impact Assessment • Chapter 16 Shipping and Navigation.

Impact	Potential for cumulative effect	Rationale
		This same approach applies to the consideration of potential cumulative effects. This impact will reference the outputs of the CEA's from the relevant topic specific assessments.
Impact 2: Impacts on the tourism economy associated with the O&M phase of the offshore infrastructure.	No	<p>The residual effect associated with the O&M phase of the offshore infrastructure is Not Significant, which is not significant in EIA terms.</p> <p>The other Phase 1 developments were not submitted for planning at the time of writing. There is not sufficient information to undertake a meaningful assessment.</p> <p>However, it is not expected that the presence of other developments during the O&M phase, would cumulatively result in a change of magnitude of impact and it has not been considered further.</p>
Impact 4: Economic effects associated with the O&M phase of the CWP Project	No	<p>The residual effect associated with the O&M phase of the offshore infrastructure is Moderate-Slight positive, which is not significant in EIA terms.</p> <p>An overall positive cumulative impact with other development(s) could be expected. However, the other Phase 1 developments were not submitted for planning at the time of writing. There is not sufficient information to undertake a meaningful assessment.</p> <p>It has been assumed at this stage, that there would be no overall change in the magnitude of the positive impact and it has not been considered further.</p>
Decommissioning		
Impact 1: Impacts on onshore and nearshore recreational receptors during the decommissioning of the OTI.	No	<p>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 29 Population.</p> <p>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.</p>
Impact 2: Impacts on the tourism economy during the decommissioning of the offshore infrastructure.	No	
Impact 3: Economic effects	No	

Impact	Potential for cumulative effect	Rationale
associated with decommissioning of the CWP Project.		

4 CEA 'other development' screening

20. The second step in the CEA for population 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.
21. The other development included in the table below are taken from the long list of other development (presented in **Appendix 5.1 Cumulative Effects Assessment Methodology**). 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.
22. In summary, the following other development will be assessed for potential cumulative effects with the CWP Project in relation to population:
- Dublin Port Company – MP2 Project (CEA-1323, CEA-1328);
 - 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);
 - 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);
 - Irish Water – Ringsend Wastewater Treatment Plant Upgrade Project (CEA-0331);
 - Kilsaran Concrete – Continuation of use of an existing concrete batching plant (CEA-1343);
 - Pembroke Beach DAC / Becbay Ltd & Fabrizia Developments Ltd – Redevelopment of former glass bottle site (CEA -0333, CEA-0339, CEA-0387, CEA-1354 and CEA-3003);
 - Dublin Port Company – Construction of a bridge- (CEA-1339);
 - Dublin Port Company – Site Investigations (CEA-0199);
 - Dublin Port Company – Capital Dredging (CEA-0192);
 - Dublin Port Company – Dredge Disposal (CEA-0206) (CEA-0207) (CEA-0208) (CEA-0209) (CEA-02010);
 - Dublin Port Company – Alexandra Basin redevelopment (CEA-0203);
 - Dublin Port Company – 3FM Project (CEA-1348);
 - National Transport Authority – BusConnects Swords to City Centre Bus Corridor Scheme (CEA 1350);
 - Ecocem Ireland Limited – Construction of a Plant (CEA 3002);
 - EirGrid Programme of Works (CEA-1371); and
 - Codema - Dublin's Energy Agency – Dublin District Heating System Project (DDHS) (CEA-1347).

Table 3 Summary of other development screened into the CEA for population

Development	Distance from the onshore infrastructure	Tier	Included in the CEA (Yes/No)	Rationale
Dublin Port Company Dublin Port Capital Dredging Project CEA-0192 and CEA-0191 Planning Ref: FS007164 and FS007132	0.5	1	No	The Dublin Port Capital Dredging Project is an 8-year licence to carry out dredging works in Dublin Port. An EIAR was produced as part of the project. There may be a temporal overlap with this development. However, there is no direct spatial overlap with the OTI and landfall working areas. If activities were seen together, it would have a limited cumulative effect, due to the existing presence of industrial development in the surrounding area. This project has not been considered further.
Dublin Port Company Site Investigations CEA-0199 Planning Ref: FS006497	0.5	1	No	Foreshore licence application for geophysical and geotechnical marine-based site investigation works to support the design of new quay walls, jetties, land reclamations and capital dredging at Dublin Port, County Dublin. The application, granted in 2016, requested a 5-year foreshore licence to conduct borehole investigations. The licence has since ceased. The DPC site investigations screened out for EIA. It has been assumed that the works have been completed within the 5-year licence duration requested. This project has not been considered further.
Dublin Port Company Alexandra Basin Re-development CEA-0203 Planning Ref.: FS006980	0	1	No	This application is for DPC's maintenance dredging requirements to be carried out in 2020 and 2021. These works have been completed and as such it is screened out of the assessment.

Development	Distance from the onshore infrastructure	Tier	Included in the CEA (Yes/No)	Rationale
Dublin Port Company Dredge disposal CEA-0206, CEA-0207, CEA-0208, CEA-0209 and CEA-0210 Planning Ref: S0004-02, S0004-03, S0033-01, S0004-01 and S0024-02	0.5	1	No	Maintenance dredging is required in order to restore the depths of the navigation channels and berths of Dublin Port to their advertised chart datum depths. No expiry. Due to the nature and location (removed from sensitive receptors for population) of the dredging works, significant cumulative effects with the CWP Project are not likely. This project has not been considered further.
Irish Water Ringsend Wastewater Treatment Plant Upgrade Project CEA-0331 Planning Ref: 5319/22	0.25	1	No	Permission for development at the Ringsend Wastewater Treatment Plant, located on Pigeon House Road, Ringsend, Dublin 4. The development consists of 2 no. units comprising a combined heat and power engine and steam generator unit with rooftop plant areas. The combined heat and power unit has a gross floor area of approximately 30 m ² and a height of approximately 2.6 m. The planning application stated: <i>“Having regard to the nature of the development in an urban area, there is no real likelihood of significant effects on the environment arising from the proposed development. The need for environmental impact assessment can, therefore be excluded at preliminary examination and a screening determination is not required.”</i> No EIA or Environmental Report has been produced for the project, so an assessment of cumulative residual effects could not be determined. However, considering the small scale nature of the project (c. 30m ²), no cumulative effects with the CWP Project are anticipated. This development is not considered further.

Development	Distance from the onshore infrastructure	Tier	Included in the CEA (Yes/No)	Rationale
<p>Pembroke Beach DAC / Becbay Ltd and Fabrizio Developments Ltd</p> <p>Redevelopment of former glass bottle site</p> <p>CEA- 0333, CEA-0339, CEA-0387, CEA-1354 and CEA-3003</p> <p>Planning Ref: 3406/22, 4121/21, 3270/19, 3062/24 and 3207/21</p>	0.35	1	Yes	<p>Mixed-use development from Pembroke Beach DAC stemming from parent case (PWSDZ3270/19).</p> <p>Permission for development of a mixed-use development (referred to as Phase 1B) on this site of 15.06 ha, including land known as the former Irish Glass Bottle and Fabrizio sites, Poolbeg West, Dublin 4.</p> <p>The residential and mixed-use scheme comprises a floor area of 43,944 m².</p> <p>The proposed development will also include hard and soft landscaping, pedestrian and cycle links, boundary treatments, tree planting, interim site hoarding, public lighting, green roofs, commercial and residential waste facilities, piped site-wide services and all ancillary works and services necessary to facilitate construction and operation.</p> <p>Potential cumulative effects arising from the addition of the OTI and landfall to the redevelopment of the former Irish Glass Bottle site in areas such as the footpath between Sandymount and the Great South Wall.</p>
<p>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)</p> <p>Planning Ref: 3625/20, 3624/20, 3137/23 and 4057/23</p>	0	1	Yes (CEA 1338+1346)	<ul style="list-style-type: none"> 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. <p>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.</p>

Development	Distance from the onshore infrastructure	Tier	Included in the CEA (Yes/No)	Rationale
				<ul style="list-style-type: none"> 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. <p>There is potential for the construction phase of these developments to overlap with the construction phase of the OTI, which could result in cumulative effects on population. Considering the proximity and potential overlap of construction phases, the potential for cumulative impacts could not be ruled out.</p>
ESB Dublin Bay Power Station / OCGT, Battery Energy Storage System (BESS) and Flexible Thermal Generation CEA-1327, CEA-1341 and CEA-1342 Planning Ref: 3074/23, 3646/20 and 3647/20	0	1	Yes (CEA-1327)	<ul style="list-style-type: none"> CEA-1327 – No data, assumed to be in construction. <p>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 could result in cumulative effects.</p> <ul style="list-style-type: none"> 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. <p>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.</p>
Dublin Port Company MP2 Project CEA-1323 and CEA-1328	0	1	Yes	<p>This jetty development forms part of the MP2 Project. The application was granted permission on 1 July 2020 with a 15-year development window for development at</p>

Development	Distance from the onshore infrastructure	Tier	Included in the CEA (Yes/No)	Rationale
Planning Ref: FS006893 and FS006893				Oil Berth 3 and Oil Berth 4, Eastern Oil Jetty and at berths 50A, 50N, 50S, 51, 51A, 49, 52, 53 and associated terminal yards, to provide for various elements including a new Ro-Ro jetty and the consolidation of passenger terminal buildings. Due to the proximity of the works, the potential for significant cumulative effects could not be ruled out.
ESB Energy infrastructure CEA-1335 Planning Ref: 3669/19	0		No	<p>Permission was granted on 15 January 2020 for the National Oil Reserves Agency development, which will consist of:</p> <ol style="list-style-type: none"> 1. Construction of a single-storey ESB substation and switchroom adjacent to the existing terminal entrance/exit gate onto Shelly Banks Road. 2. All associated site works. These development works will result in the site being upgraded to Upper Tier under the Seveso Regulations. <p>No EIA or environmental report has been produced for the project, so an assessment of cumulative residual effects could not be determined.</p> <p>However, considering the small-scale nature of the project (c. 21m²), likely significant cumulative impacts can be ruled out.</p> <p>This development has not been considered further.</p>
Dublin Port Company Bridge over existing cooling water channel (superseded by CWP Project proposals) CEA-1339	0		No	<p>This project refers to construction of a bridge over the cooling water discharge channel. Permission expires in September 2024.</p> <p>The installation of a bridge over the cooling water discharge channel into the onshore substation is</p>

Development	Distance from the onshore infrastructure	Tier	Included in the CEA (Yes/No)	Rationale
Planning Ref: 3711/18				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 superseded by the CWP Project proposals. This project has not been considered further.
Hammond Lane Metal Company Ltd Construction of two-storey building and non-ferrous metals recovery facility CEA-1340 Planning Ref: 2130/18	0.56	1	No	Construction of two-storey building and non-ferrous metals recovery facility. This permission expired in June 2023. This project is likely to already be constructed and part of the baseline. An EIAR or an environmental report was not submitted with the application. The construction phase of the projects will not overlap and the project in question is of small scale (10 m x 40m); as a result, there is not potential for cumulative effects with the OTI. Therefore, the project has been screened out from further assessment.
Kilsaran Concrete Continuation of use of an existing concrete batching plant CEA-1343 Planning Ref: 3469/22	0.3	1	No	Continuation of use of an existing concrete batching plant and associated facilities. No EIA or Environmental Report has been produced for the project, so an assessment of cumulative residual effects could not be determined. The application is for the continuation of use of an existing concrete batching plant. As the plant is already in operation and will not change, the plant would therefore have been considered within the baseline assessment. There is therefore no potential for cumulative impacts with the CWP Project.

Development	Distance from the onshore infrastructure	Tier	Included in the CEA (Yes/No)	Rationale
				Significant cumulative effects relating to population are not anticipated.
ED & F Man Liquid Products Ireland Limited New Storage Tank CEA-1344 Planning Ref: 2804/19	0	1	No	<p>Planning permission for development at an existing molasses storage terminal at the corner of South Bank Road and Pigeon House Road. The development will consist of the construction of a new molasses storage tank within the existing bund at the existing molasses storage terminal. Permission was granted on 18 July 2019.</p> <p>No EIA or Environmental Report has been produced for the new Storage Tank project, so an assessment of cumulative residual effects could not be determined.</p> <p>However, considering the small-scale nature of the proposed storage tank (13.3 m x 16.3 m) and the absence of spatial overlap between the projects, there is no potential for significant cumulative impacts with the CWP Project.</p> <p>This project has been screened out from further assessment.</p>
Dublin Port Company 3FM Project CEA-1348 Planning Ref: N/A	0	1	Yes	<p>Due to the limited information available about this development, a detailed assessment of potential cumulative effects is not possible. An overview of potential effects which may arise from the addition of the OTI to a cumulative context which includes this development are described in Section 5 below.</p>
National Transport Authority – BusConnects Swords to City Centre Bus Corridor Scheme	3.86	1	No	<p>The Swords to City Centre Core Bus Corridor Scheme has an overall length of approximately 12 km. It will commence south of Swords at Pinnock Hill Junction and</p>

Development	Distance from the onshore infrastructure	Tier	Included in the CEA (Yes/No)	Rationale
CEA 1350 Planning Ref: ABP 317121-23				travel in a southerly direction until Parnell Square, all in the County of Dublin and within the Fingal County Council (FCC) and Dublin City Council (DCC) administrative areas. Due to the relative distance between the projects and the lack of proximal overlap, significant cumulative effects are not likely and this project is screened out from further assessment.
Ecocem Ireland Limited – Construction of a Plant CEA 3002 Planning Ref: 3041/24	0.5	1	No	Permission for development consisting of the construction of plant, comprising silos and blender, compressor room, cooling tank and pump room, storage, feed conveyors, retaining walls, new palisade fencing encompassing an increased site area incorporating a new vehicular sliding access gate replacing the existing vehicular swing gates, and the repositioning of the existing vehicular exit gate, creating a new vehicular entrance to the east of the site, as well as revision of car park layout, together with associated site works. Retention permission is also sought for silos, office and laboratory, together with permission for the demolition of structures, both permanent and temporary, to include cooling tanks, compressor room, mill feed, silo and blender, retaining wall and palisade fencing and wall. Due to the relative nature and minor scale of the works proposed, and in some instances already conducted, significant cumulative effects are not likely and this project is screened out from further assessment.
Codema – Dublin's Energy Agency	0	3	No	The Dublin District Heating System (DDHS) will be a thermal energy network that uses energy from waste

Development	Distance from the onshore infrastructure	Tier	Included in the CEA (Yes/No)	Rationale
Dublin District Heating System (DDHS) project CEA-1347 Planning Ref: N/A				<p>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.</p> <p>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.</p> <p>There are insufficient details available about this project to undertake a meaningful cumulative effects assessment. Therefore, the project is screened out from further assessment.</p>
EirGrid Programme of Works CEA-1371 Planning Ref: N/A	0 km	3	No	<p>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.</p> <p>Final route technologies have not yet been confirmed and the project has not yet been submitted for planning consent.</p> <p>There are insufficient details available about this project to undertake a meaningful cumulative effects assessment. Therefore, the project is screened out from further assessment.</p>

23. In summary, the following other development will be included in the assessment of potential cumulative effects that may arise through the addition of the CWP Project, in relation to population:
- Former Irish Glass Bottle site;
 - EirGrid 220kV Substation;
 - ESB Poolbeg Generating Station (OCGT)
 - ESB Dublin Bay Power Station (OCGT);
 - Dublin Port Company MP2 Project; and
 - Dublin Port 3FM Project.

5 Assessment of cumulative effects

5.1 Construction phase

Cumulative Impact 1: Impacts on onshore and nearshore recreational receptors during the construction of the OTI and landfill

24. The CWP Project will result in a temporary disturbance to recreational receptors during the construction phase.
25. With the incorporation of primary and additional mitigation, the significance of the residual effect on the recreational receptors is Not Significant, which is not significant in EIA terms.

Former Irish Glass Bottle site

26. The site consists of a mixed-use development predominantly focused on housing units and associated infrastructure and services. The Environmental Impact Assessment Report (EIAR) for the development does not identify any negative impacts on population and ultimately identifies positive impacts in terms of the provision of office, mixed use and residential spaces for the area. There is no direct spatial overlap in construction areas of the two developments.
27. Therefore, allowing for the temporary nature of the construction phases, it is considered the significance of residual effects would remain at **Not Significant**, which are not significant in EIA terms and no additional mitigation measures would be required

EirGrid 220kV Substation

28. The EirGrid Poolbeg 220kV Substation is situated on the eastern side of the Poolbeg Peninsula, adjacent to Ringsend Wastewater Treatment Plant and Pigeon House Road. The construction consists of a 220kV GIS Substation building and associated infrastructure. The construction of this development will likely be substantially completed prior to the CWP Project completion, to facilitate the ESB network cables connection to the substation. However, some potential overlap of construction stages is possible. The environmental assessment for the EirGrid Poolbeg 220kV Substation determined no significant effects in terms of population
29. Therefore, allowing for the temporary nature of the construction phases, it is considered the significance of residual effects would remain at **Not Significant**, which are not significant in EIA terms and no additional mitigation measures would be required.

ESB OCGT Projects (ESB Poolbeg Generating Station and Dublin Bay Power Station)

30. These developments will involve the construction of an OCGT within each of the respective sites. It is assumed that the construction phase of these developments may overlap with the construction of the OTI and landfall. These developments are primarily concentrated to lands within the ESB Poolbeg Generating Station complex and the Dublin Bay Power Generating Station, both situated on Pigeon House Road. Based on a review of the Environmental Impact Assessment for CEA 1327 and CEA 1338, the population assessment each determined, that any residual impacts would be not significant for these developments.
31. Therefore, allowing for the temporary nature of the construction phases, it is considered the significance of residual effects would remain at **Not Significant**, which are not significant in EIA terms and no additional mitigation measures would be required.

Dublin Port Company MP2 Project

32. The MP2 Project involved the construction of new jetties and associated berths and the development of passenger terminal buildings. An EIAR was submitted for the MP2 Project, which stated that, regarding population and human health: "The overall effects on population and health would be positive as the ranging beneficial changes to socio-economic factors and their impact on health and well-being outweigh the negligible adverse changes to environmental determinants."
33. Despite the likely overlap of the construction phases of this development and the CWP Project, there are not likely to be significant cumulative impacts on population as there is no direct spatial overlap with OTI or landfall work activities.
34. Therefore, allowing for the temporary nature of the construction phases, it is considered the significance of residual effects would remain at **Not Significant**, which are not significant in EIA terms and no additional mitigation measures would be required.

Dublin Port 3FM Project

35. The planning application for the Dublin Port 3FM Project has not been submitted at the time of writing this assessment. The Dublin Port 3FM Project spans most of the Poolbeg Peninsula and construction timeline will overlap with the CWP Project. The works associated with the development includes alterations to the road network, new port terminals, a waterside turning circle, provision for utilities and a maritime village. The dominant development areas proposed are the:
 - Maritime village (to the west of the Poolbeg Peninsula), along with container storage, trailer parking and Ro-Ro terminal;
 - Lo-Lo container yard (to the west of the Irishtown Nature Park), along with a utility area, port park, landscaped buffer strip and active travel route along the Poolbeg Peninsula's southern perimeter; and
 - ESB jetty and Lo-Lo container terminal located on the northern side of the Great South Wall close to the eastern extent of the Poolbeg Peninsula.
36. There is no other adequate information on this proposed development, to undertake a meaningful assessment. As such it is assumed that this development would be controlled by the assessment of the individual planning application and there would be no significant cumulative effects with the CWP Project.

Summary

37. It is not considered necessary that additional mitigation measures, other than the primary mitigation and additional mitigation already proposed in **Chapter 29 Population**, or relevant topic specific assessments would be required.

5.2 Operation and maintenance phase

Cumulative Impact 1: Impacts on recreational receptors associated with the O&M phase of the offshore infrastructure

38. Recreational receptors are considered in relation to the offshore infrastructure at the array site during the O&M phase in the following topic specific assessments:
- **Chapter 15 Seascape Landscape Visual and Impact Assessment**, where effects on the visual amenity of receptors groups including key walking routes are considered;
 - **Chapter 16 Shipping and Navigation**, where shipping and navigation risks are associated with the O&M of the offshore infrastructure is considered
39. CEA's have also been produced to support each of those assessments and are reported in **Appendix 15.1 Cumulative Effects Assessment** and **Appendix 16.1 Cumulative Effects Assessment**.

6 CEA summary

40. This CEA, which supports **Chapter 29 Population**, has assessed the potential cumulative effects on population from the CWP Project, alongside other development. The CEA does not identify any significant cumulative effects resulting from the CWP Project alongside other developments.
41. The potential for cumulative effects associated with aspects such as seascape, landscape and visual impact are addressed in the respective topic-specific chapters.