codling wind park

Environmental Impact Assessment Report

Volume 3

Chapter 23 Landscape and Visual Impact Assessment


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Abbreviations

Abbreviation	Term in Full
ABP	An Bord Pleanála
AGL	Above ground level
CCGT	Combined cycle gas turbine
CEA	Cumulative effects assessment
CWP	Codling Wind Park
DCC	Dublin City Council
DSM	Digital surface model
DTM	Digital terrain model
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
ELC	European Landscape Convention
EPA	Environmental Protection Agency
ESB	Electricity Supply Board
ESBN	ESB Networks
EU	European Union
GIS	Geographic Information System
GLVIA3	Guidelines for Landscape & Visual Impact Assessment, Third Edition
HDD	Horizontal directional drilling
IEMA	Institute of Environmental Management and Assessment
ILI	Irish Landscape Institute
LCA	Landscape character area
LCT	Landscape character types
LoD	Limit of deviation
LVIA	Landscape and visual impact assessment
LWM	Low water mark
ODM	Ordnance datum Malin
OWF	Offshore wind farm
OREDPII	Offshore Renewable Energy Development Plan
OTI	Onshore transmission infrastructure
SAAO	Special Amenity Area Order
SDZ	Strategic Development Zone

Abbreviation	Term in Full
SEA	Strategic environmental assessment
TCA	Townscape character areas
TII	Transport Infrastructure Ireland
TJB	Transition joint bay
ZTV	Zone of theoretical visibility

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.
combi-wall	A piling wall that is comprised of high modulus structural components interspaced by lighter sheet piles. The high modulus components - known as king piles - can be tubular, box, bearing or other types of fabricated piles.
Compound A	A temporary construction compound, support area and storage facility for the landfall works and to support the installation of the onshore export cables. It will operate as a hub for the onshore construction works as well as acting as a staging post and secure storage for equipment and component deliveries.
Compound B	A temporary construction compound / laydown area for general cable route and onshore substation construction activities.
Compound C	A temporary construction compound for the onshore substation site. Contractor welfare facilities will be located in this compound as well as some material storage space.
Compound D	A temporary construction compound and laydown area to facilitate the construction of the bridge over the cooling water channel.
EirGrid	State-owned electric power transmission system operator in Ireland and nominated Offshore Transmission Asset Owner
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.
ESBN network cables	Three onshore export cable circuits connecting the onshore substation to the proposed ESBN Poolbeg substation, which will then transfer the electricity onwards to the national grid.
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.
export cables	The cables, both onshore and offshore, that connect the offshore substations with the onshore substation.
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.

Glossary	Meaning
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). 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 that are too shallow for conventional cable lay vessels to operate.
landfall area	An area between the Transition Joint Bays located above the high water mark (HWM), through the intertidal area of Sandymount Strand and beyond the low water mark (LWM) into an area of shallow sea to a point approximately 4km offshore where the Cable Lay Vessel will be located.
landfall works	Construction activities occurring within the landfall area.
Limit of Deviation (LoD)	Locational flexibility of permanent and temporary infrastructure is described as a LoD from a specific point or alignment.
Maritime Area Planning (MAP) Act 2021	An Act to regulate the maritime area, to achieve such regulation by means of a National Marine Planning Framework, 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
offshore export cables	The cables which transport electricity generated by the wind turbine generators (WTGs) from the offshore substation structures (OSSs) to the landfall.
offshore export cable corridor (OECC)	The area between the array site and the landfall, within which the offshore export cables will be installed along with cable protection and other temporary infrastructure for construction.
offshore transmission infrastructure (OfTI)	The offshore transmission assets comprising the OSSs, interconnector cables and offshore export cables. The EIAR considers both permanent and temporary works associated with the OfTI.
onshore export cables	The cables which transport electricity generated by the wind turbine generators (WTGs) from the offshore substation structures (OSSs) to the TJBs at the landfall.
onshore development area	The entire footprint of the OTI and associated temporary works that will form the onshore boundary for the planning application.
onshore transmission infrastructure (OTI)	The onshore transmission assets comprising the TJBs, onshore export cables and the onshore substation. The EIAR considers both permanent and temporary works associated 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.

Glossary	Meaning
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	The period of time during which the CWP project will be operated and maintained.
parameters	Set of parameters by which the CWP Project is defined and which are used to form the basis of assessments.
Phase 1 Project	Under the special transition provisions in the Maritime Area Planning Act 2021, as amended (the MAP Act), the Minister for the Department of Environment, Climate and Communications (DECC) has responsibility for assessing and granting a Maritime Area Consent (MAC) for a first phase of offshore wind projects in Ireland. The Phase 1 Projects include Oriel Wind Park, Arklow Bank II, Dublin Array, North Irish Sea Array, Codling Wind Park and Skerd Rocks. A MAC has since been granted by DECC for each of the 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	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 HDD compound 1	The area within Compound C that will house the ESBN network cable HDD entry or exit pits as well as associated plant, equipment and facilities.
temporary HDD compound 2	The area adjacent to the Poolbeg 200kV substation that will house the ESBN network cable HDD entry or exit pits as well as associated plant, equipment and facilities.
temporary tunnel compound 1	The area within Compound A, near the landfall, within which the Compound A tunnel launch shaft will be located.
temporary tunnel compound 2	The area within which the Shellybanks Road tunnel reception shaft will be located.
temporary tunnel compound 3	The area within the onshore substation site, within which the onshore substation tunnel launch shaft will be located.
temporary tensioner platform	Tensioners on raised platforms to aid cable pull-in across the intertidal area.
temporary cofferdam	A barrier to tidal inundation whilst the existing stone covered foreshore is temporarily removed to install the landfall cable ducts.
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.

Glossary	Meaning
tunnel	The onshore export cables will be installed within a tunnel that extends from within Compound A, near the landfall, to the onshore substation site.
tunnel shaft	Located within the temporary tunnel compounds, the tunnel shafts will facilitate the two tunnel drives required to complete the construction of the tunnel.

23 LANDSCAPE AND VISUAL IMPACT ASSESSMENT

23.1 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. This chapter forms part of the Environmental Impact Assessment Report (EIAR) for the CWP Project. The purpose of the EIAR is to provide 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).

3. This EIAR chapter describes the potential impacts of the CWP Project's onshore transmission infrastructure (OTI) and landfall works on landscape / townscape and visual receptors during the construction, operation and maintenance and decommissioning phases.

4. In summary, this EIAR chapter:

   - Details the EIA scoping and consultation process undertaken and sets out the scope of the Landscape and Visual Impact Assessment (LVIA);
   - Identifies the key legislation and guidance relevant to LVIA, with reference to the latest updates in guidance and approaches;
   - Confirms the LVIA study area and presents the impact assessment methodology for LVIA;
   - Describes and characterises the baseline environment for LVIA, established from desk studies, project survey data and consultation;
   - Defines the project design parameters for the impact assessment and describes any embedded mitigation measures relevant to the LVIA;
   - Presents the assessment of potential impacts on landscape / townscape and visual receptors and identifies any assumptions and limitations encountered in compiling the impact assessment; and
   - Details any additional mitigation and/or monitoring necessary to prevent, minimise, reduce or offset potentially significant effects identified in the impact assessment.

5. The assessment should be read in conjunction with **Appendix 23.1 Cumulative Effects Assessment**, which considers other plans, projects and activities that may act cumulatively with the CWP Project and provides an assessment of the potential cumulative impacts on landscape / townscape and visual receptors.

6. A summary of the CEA for LVIA is presented in **Section 23.11**.

7. Additional information to support the assessment includes:

   - **Appendix 23.1 Cumulative Effects Assessment**;
   - **Appendix 23.2 LVIA Methodology**;
   - **Appendix 23.3 LVIA Figures and Visualisations**.

8. This chapter should be read in conjunction with:

   - **Chapter 21: Onshore Biodiversity**; and
   - **Chapter 22: Archaeological, Architectural and Cultural Heritage**.

23.2 Consultation

9. Consultation with statutory and non-statutory organisations is a key part of the EIA process. Consultation regarding LVIA has been undertaken to inform the approach to and scope of the assessment.

10. The key elements to date have included EIA scoping, consultation events, and meetings with key stakeholders, including in particular Dublin City Council (DCC). The feedback received throughout this process has been considered in preparing the EIAR. EIA consultation is described further in **Chapter 5 EIA Methodology**, the **Planning Documents** and in the **Public and Stakeholder Consultation Report**, which has been submitted as part of the planning application.

11. **Table 23-1** provides a summary of the key issues raised during the consultation process relevant to LVIA and details how these issues have been considered in the production of this EIAR chapter.

Table 23-1 Consultation responses relevant to LVIA

Consultee	Comment	How issues have been addressed
Scoping responses		
Transport Infrastructure Ireland (TII) scoping response, 25 May 2021.	Visual impacts from existing national roads and light rail networks should be considered.	A review of transport routes predicted to receive theoretical visibility has been undertaken (see **Section 23.6** and **Section 23.10)**.
Post-scoping consultation		
DCC post-scoping consultation letter regarding proposed LVIA methodology and viewpoint locations, 18 July 2022.	No landscape- / townscape- or visual-specific comments have been received as a result of this correspondence, at the time of writing.	A consultation meeting was arranged with DCC for the 15 December 2022.
Topic-specific meetings		
DCC consultation meeting – landscape and visual amenity, 15 December 2022.	Requested an additional viewpoint on Strand Road near Merrion Gates, at Sandymount and at Clontarf.	A review of additional viewpoints was undertaken. Viewpoints at Strand Road, Sandymount Strand, and Clontarf have been included (see **Section 23.6** and **Section 23.10**).
	Requested an additional viewpoint in the Dublin Hills area.	Dublin Hills is beyond the LVIA study area and significant effects at this distance are not anticipated. Viewpoint at Dublin Hills not included.
Dún Laoghaire-Rathdown County Council: seascape, landscape and visual amenity, June 2023	No onshore landscape or visual specific comments were raised. It was discussed that the views of the onshore substation along	No further actions

Consultee	Comment	How issues have been addressed
	Strand Road towards the Merrion Gates would be very limited.	

23.3 Legislation and guidance

23.3.1 Legislation

12. The main legislation that is applicable to the assessment of landscape / townscape and visual effects is summarised below. Further detail is provided in **Chapter 2: Policy and Legislative Context**.

- European Union (EU) Directive 2011/92/EU (as amended by Directive 2014/52/EU) on the assessment of the effects of certain public and private projects on the environment (the EIA Directive);
- The Planning and Development Act 2000 as amended (S.I No. 30 of 2000);
- The Planning and Development Regulations 2001 (as amended); and
- The European Landscape Convention (Council of Europe, 2000).

23.3.2 Policy

13. The overarching planning policy relevant to the CWP Project is described in EIAR **Chapter 2 Policy and Legislative Context**.

14. The assessment of the CWP Project against relevant planning policy is provided in the **Planning Report**. This includes planning policy relevant to the LVIA.

23.3.3 Guidance

15. The principal guidance and best practice documents used to inform the LVIA are summarised below.

16. This LVIA has been prepared in accordance with the principles set out in the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3) (Landscape Institute, Institute of Environmental Management and Assessment (IEMA), 2013).

17. GLVIA3 sets out good practice for undertaking LVIA and provides a framework for identifying likely significant effects of proposed developments. GLVIA3 has been adopted by the Irish Landscape Institute (ILI) and is acknowledged in guidance and policy as the leading reference for LVIA in Ireland.

18. This LVIA takes cognisance of guidance issued in Ireland where relevant, but also draws upon best practice guidance issued in the UK where no equivalent guidance for Ireland currently exists. This guidance comprises:

- Department for Housing, Planning and Local Government (2019). Draft Revised Wind Energy Development Guidelines;
- Landscape Institute (2019). Visual Representation of Development Proposals;
- Natural England (2014). An approach to Landscape Character Assessment;
- NatureScot (2021). Assessing the cumulative landscape and visual impact of onshore wind energy developments;

- Planning Inspectorate (2019). Advice Note 17: Cumulative effects assessment relevant to nationally significant infrastructure projects – Version 2;
- Scottish Natural Heritage (NatureScot) (2017). Visual Representation of Wind Farms, Version 2.2;
- Transport Infrastructure Ireland (2020). Landscape Character Assessment and Landscape and Visual Impact Assessment of Specified Infrastructure Projects – Overarching Technical Document;
- Landscape Institute (2013). GLVIA3 Statement of Clarification 1/13 10-06-13;
- Landscape Institute (2021). Technical Guidance Note 02/21, Assessing landscape value outside national designations; and
- Landscape Institute (2019). Technical Guidance Note 06/19, Visual Representation of Development Proposals;

19. In addition to specific LVIA guidance documents, the following guidelines were considered and consulted in the preparation of this chapter:

- Department for Housing, Planning and Local Government (2018). Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment;
- Environmental Protection Agency (EPA) (2022). Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the EPA Guidelines);
- EPA (2003). Advice Notes on Current Practice in the Preparation of Environmental Impact Statements.
- European Commission (2017). Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report; and

20. The approach to the above guidance was agreed at a consultation meeting with DCC in December 2022.

23.4 Impact assessment methodology

21. **Chapter 5 EIA Methodology** provides a summary of the general impact assessment methodology applied to the CWP Project. The LVIA methodology, set out in **Appendix 23.2**, diverges in some respects from that standard methodology. The following sections confirm the methodology used to assess the potential impacts on landscape / townscape and visual receptors.

22. The approach to the assessment of cumulative impacts, transboundary impacts and interrelated effects is provided in **Chapter 5 EIA Methodology**.

23.4.1 Study area

23. The onshore development area, within which the OTI will be located, covers an area of 23.1 ha on the Poolbeg Peninsula, on the southern bank of the River Liffey. Permanent infrastructure will extend across this area; however, all permanent above ground infrastructure will be located within the onshore substation site.

24. The study area for the LVIA has been defined on the basis of a radius of 5 km from the onshore substation site, as shown in **Figure 23.1**. Five kilometres is considered to be an appropriate distance for the consideration of landscape / townscape and visual effects, taking into account the nature and scale of the proposals (as shown in **Figure 23.2**), including bare ground ZTV coverage (as shown in **Figure 23.3**) and obstructed ZTV coverage (as shown alongside landscape and townscape characteristics in **Figure 23.4**, and alongside visual receptors and viewpoint locations in **Figure 23.5**), and professional experience on projects of a similar nature.

25. The 5 km radius study area includes an area of Irish Sea to the east; parts of North Bull Island to the north-east; Dublin Port and associated docklands to the north, as well as parts of North Dublin,

including Clontarf, Raheny, and Artane; eastern parts of Dublin city centre to the west; and residential suburbs to the south of Dublin, including Ringsend, Sandymount, Merrion, and Booterstown. The majority of land within the LVIA study area is located within Dublin City Council, although there is a small area at the south and south-eastern extent of the LVIA study area which is located within Dún Laoghaire-Rathdown.

26. The 5 km radius LVIA study area is generally heavily developed, due to its position in proximity to the centre of Dublin. Land use across the LVIA study area varies from industrial land, including waste management and energy generation activities within close proximity to the onshore development area, to mixed-use and historic development across Dublin city centre, to lower-density residential development across suburban parts of North and South Dublin.

27. Located at the north-eastern extent of the LVIA study area, North Bull Island is a sandy spit, separated from the mainland by sandflats and intertidal mud. There are several designations covering all or parts of the island, making it "one of the most intensively designated areas in Ireland" (Parks & Landscape Services, Dublin City Council, 2020). The main designation of relevance to LVIA is North Bull Island Special Amenity Area Order (SAAO). Objective GIO19 of the DCC Development Plan (DCC, 2022) is to update the SAAO Management Plan, which currently dates from 2009. At the time of writing, an updated management plan has not been produced, and the 2009 management plan does not include details of the boundary of the SAAO, or a clear description of the special qualities for which the area has been designated, with the exception of the "*natural beauty of the area, its special recreational value and its need for nature conservation*" (McCorry and Ryle, 2009). There are no further designated landscapes within the LVIA study area.

28. The landfall works, as described in EIAR **Chapter 4 Project Description**, will occur between the transition joint bays (TJBs) located above the high water mark (HWM), through the intertidal area of Dublin Bay and beyond the low water mark (LWM) into an area of shallow sea to a point approximately 4 km offshore. The intertidal and shallow water nearshore section of the offshore export cables shall be installed separately to the sections of cable in deeper waters due to vessel access limitations. This will require use of land-based and specialist shallow water equipment.

29. In addition to the OnTI, the LVIA assesses the visual impact of the full extent of the landfall works, from the TJBs to 4 km offshore. This area is presented in **Figure 23.1**. However, to avoid duplication between the LVIA and the Seascape, Landscape and Visual Impact Assessment (SLVIA) (see EIAR **Chapter 15 Seascape, Landscape & Visual Impact Assessment**), the LVIA assesses the impact of the landfall works on the landscape and townscape to the LWM. Where the landfall works transition into the shallow sea area at the LWM (where the construction and decommissioning processes will involve submerged and floating infrastructure (i.e., the mid support pontoon), the effect of the works on the seascape is assessed in the SLVIA.

23.4.2 Data and information sources

Site-specific surveys

30. In order to provide site-specific and up-to-date information on which to base the impact assessment, a site characterisation survey was conducted. Interactions have been identified between the OTI and landfall works, and landscape / townscape and visual receptors, to predict likely significant effects and measures proposed to mitigate them.

31. For these receptors, primary data acquisition has been undertaken through a series of fieldwork surveys. These surveys have included verification of the likely zone of theoretical visibility (ZTV) of the onshore substation from relevant parts of the LVIA study area, micro-siting of representative viewpoint

locations, panoramic baseline photography, and visual assessment survey from representative viewpoint locations.

32. Baseline photography and the fieldwork survey were undertaken between August 2022 and January 2024, as described in **Table 23-2**. Locations visited included representative viewpoints agreed with DCC (as described in **Table 23-1**) and the wider LVIA study area.

33. It has not been possible to visit every part of the LVIA study area when undertaking field surveys and therefore some aspects of the assessment are based on desktop study and professional experience. For example, parts of the LVIA study area comprise industrial land that has restricted public access, and there are several sites under construction and / or vacant land parcels that are not readily accessible by members of the public. It is considered that public roads and footpaths across the LVIA study area have provided sufficient coverage to form the basis of a robust assessment throughout the LVIA chapter.

34. Where feasible, limitations have been minimised by timing surveys when visibility is sufficient to accurately represent the OTI in visualisations.

35. A summary of the surveys undertaken to inform the LVIA assessment of effects is outlined in **Table 23-2** below.

Table 23-2 Site-specific survey data

Title	Extent of survey	Overview of survey	Survey contractor	Date
LVIA viewpoint photography	LVIA viewpoints	Viewpoint photography was undertaken from five of the nine viewpoints.	Natural Power	14 May 2022, 17 September 2022
LVIA viewpoint photography	LVIA viewpoints	Viewpoint photography was undertaken from one of the nine viewpoints.	Natural Power	21 September 2023
LVIA fieldwork and viewpoint photography	LVIA study area	LVIA fieldwork and viewpoint photography was undertaken by a chartered landscape architect. The survey captured baseline photography from one of the representative viewpoint locations, as well as detailed survey of landscape / townscape and visual receptors within the LVIA study area.	Optimised Environments Ltd. (OPEN)	21– 22 November 2023

Title	Extent of survey	Overview of survey	Survey contractor	Date
LVIA viewpoint photography	LVIA viewpoints	Viewpoint photography was undertaken from two of the nine viewpoint locations.	Tom Finnie Photography	5 January 2024

Desk study

36. In addition to the site-specific surveys, a comprehensive desk-based review was undertaken to inform the baseline for LVIA. Key data sources used to inform the assessment are set out in **Table 23-3**.

Table 23-3 Data sources

Data	Source	Date	Notes
Base mapping	Osi Discovery map	N/A	Provided by client
Digital terrain model (DTM)	Geological Survey Ireland and the Office of Public Works	2011	https://data.gov.ie/dataset/open-topographic-lidar-data
Digital surface model (DSM)	Bluesky International	2024	https://bluesky-world.ie/
National Trails	Sport Ireland Outdoors	2023	https://www.arcgis.com/home/item.html?id=85caff3d5937486e87b07c9c87d81cd5
PROWS	Dublin City Development plan	2022 – 2028	https://www.dublincity.ie/dublin-city-development-plan-2022-2028/written-statement/chapter-10-green-infrastructure-and-recreation/105-policies-and-objectives
Aerial mapping	Vivid Advanced imagery from Maxar	2024	https://www.arcgis.com/home/item.html?id=10df2279f9684e4a9f6a7f08febac2a9

23.4.3 Impact assessment

37. The LVIA has followed the methodology set out in **Appendix 23.2 LVIA Methodology** and follows guidance listed in **Section 23.3** above. The methodology for the assessment of landscape / townscape and visual impacts of the OTI and landfall works is set out in full in **Appendix 23.2**.

38. The LVIA assesses the likely effects of the construction, operation and maintenance, and decommissioning of the OTI and landfall works on the landscape / townscape and visual resource, encompassing effects on landscape features, landscape / townscape character, visual effects, and cumulative effects.

39. An appropriate and proportionate level of assessment has been undertaken and agreed through consultation. The level of assessment may be 'preliminary' (requiring desk-based data analysis) or 'detailed' (requiring site surveys and investigations in addition to desk-based analysis).

40. The LVIA unavoidably involves a combination of quantitative and qualitative assessment and, wherever possible, a consensus of professional opinion has been sought through consultation, internal peer review, and the adoption of a systematic, impartial, and professional approach.

41. The LVIA is based on the design parameters described in **Chapter 4 Project Description**.

23.4.4 Visual representation methodology

42. The methodology for the production of visual representations (photomontages and ZTVs) of the OTI is set out in full in **Appendix 23.2**.

43. The visual representations presented in **Appendix 23.3**: **Figures 23.10** to **23.18** have been produced in accordance with Visual Representation of Development Proposals (TGN 06/19) (Landscape Institute, 2019). The ZTVs in **Figures 23.3** to **23.5** (**Appendix 23.3**) are generated using Geographic Information System (GIS) software (ESRI ArcGIS Pro) to model the theoretical visibility of the OTI.

23.5 Assumptions and limitations

44. The following assumptions or limitations have been identified that apply to the assessment for LVIA:

- The DTM data from which the ZTV has been calculated are The Office of Public Works (Ireland) 2 m LiDAR data and have not been down sampled;
- The DSM data from which the obstructed ZTV has been calculated are BlueSky 2 m LiDAR data and have not been down sampled;
- The viewer height has been set at 2 m above ground level (AGL);
- Earth curvature correction parameters have been applied with a light refractivity coefficient of 0.13;
- The obstructed ZTV has been created to an extent of 5 km and is based on the height of each building within the onshore substation;
- Building heights are based on those described in **Chapter 4 Project Description**;
- The software used to create the ZTV does not use mathematically approximate methods;
- A ZTV is only as accurate as the data on which it is based and the algorithm used in its calculation;
- A ZTV alone cannot indicate the potential effects of a development nor show the likely significance of effects; therefore, it shows theoretical visibility only;
- It is not easy to test the accuracy of a ZTV in the field, although some verification will have occurred during the assessment from viewpoints; and
- The accuracy of most DTMs / DSMs is limited, and they do not include accurate representation of minor topographic features and may not represent areas of recent topographic change, such as quarries, spoil heaps, and road cuttings.

45. These assumptions and limitations are considered to be typical of those which accompany an assessment of this kind. They relate primarily to the production of the ZTV, which is only one tool used in the assessment of effects on landscape and visual receptors. As such, the assumptions and limitations do not undermine the validity of the assessment carried out within the LVIA.

23.6 Existing environment

23.6.1 Introduction

46. The following sections provide an overview of the baseline conditions for LVIA. The landscape / townscape and visual receptors which have the potential to undergo significant effects as a result of the OTI and landfall works are identified in a preliminary assessment. Those which do not have the potential to experience significant effects are scoped out. The full baseline description for those receptors which are scoped in for further assessment is provided in **Section 23.10** below, alongside the assessment of effects.

23.6.2 Study area

47. The LVIA study area is focussed on the eastern edge of Dublin, and includes areas within Dublin city centre, Dublin docklands and port, and residential and coastal areas beyond the immediate city centre. The River Liffey flows through Dublin city centre in the west of the LVIA study area, through the centre of the LVIA study area, before meeting the Irish Sea at Dublin Port, around which the docklands have been constructed. Landform within the LVIA study area is generally low-lying, particularly around coastal areas and the River Liffey, with slightly more elevated areas further inland and to the north and south of the River Liffey. Overall, there are no notable areas of elevated ground, with landform across the LVIA study area being relatively flat.

48. Land use within the LVIA study area is primarily urban, particularly within the eastern part of Dublin, which is located in the west of the LVIA study area. There are also more suburban, residential areas to the south-west of the LVIA study area, comprising areas such as Sandymount, Booterstown, Ballsbridge, and Ranelagh, as well as in the north of the LVIA study area, including Clontarf, Dollymount, Donnycarney, and Raheny. In the north-east of the LVIA study area, North Bull Island forms an indirectly man-made sandbank, created by sand deposits that have built up beyond the Bull Wall, which was built to prevent sand blocking the entrance to Dublin Port. A similar process, associated with the building of the Great South Wall on the southern side of Dublin Port, created Sandymount Strand, an extensive area of intertidal mudflats to the south of the onshore development area. Both Sandymount Strand and North Bull Island are important ecologically and are designated as part of the UNESCO Dublin Bay Biosphere Reserve.

49. Within the centre of the LVIA study area, Dublin Port and docklands is a primarily industrial area, focussed to the north and south of Dublin Port. The Bull Wall and the Great South Wall frame the entrance to Dublin Port. To the north of the harbour, there is an area of industrial land situated between the Tolka Estuary to the north, which separates the harbour from Clontarf to the north, and the River Liffey and harbour to the south. This area includes the majority of Dublin Port, including berths, storage areas, and the passenger ferry terminal. To the south of the harbour is the Poolbeg Peninsula, which is generally industrial in character with some areas of open space. This area is formed from reclaimed land associated with the construction of Dublin Port, following the construction of the Great South Wall. Many of Dublin's major power, sewage, waste, storage, and port facilities are located here, as well as a number of industrial facilities, such as metal recycling and a cement plant. Irishtown Nature Park in the south, adjacent to the beach at Sandymount Strand, forms an area of higher recreational and amenity value amongst the industrial features. There are also several notable architectural and cultural heritage features, including the former Pigeon House Power Station, the former Pigeon House Hotel, historic assets associated with the growth of Dublin Port, and the chimneys of the former ESB Generating Station.

50. The Great Dublin Bike Ride, promoted by Cycling Ireland (2024) passes through the centre of Dublin in the west of the LVIA study area before passing north, to the west of Dublin docklands, and along

the coast through Clontarf. Other recreational routes through the LVIA study area include the footpath between Sandymount and the Great South Wall, which passes alongside Irishtown Nature Park through the centre of the LVIA study area.

23.6.3 The onshore development area and intertidal area

51. Land use within the onshore development area varies and is predominantly industrial in character, although there are areas of colonised, vegetated brownfield land. The intertidal area is part of an extensive area of mudflats located between the high water mark and the low water mark.

52. The main Construction Compound A (Compound A) will be located on an area of existing industrial hardstanding owned by Dublin Port Company. To the south of this area, there is a strip of vegetated land consisting of two berms, located to the west of Irishtown Nature Park. Land cover across this area comprises dry grassy verges, scrub, and recolonising bare ground situated on an open brownfield site. A coastal footpath linking Sandymount to the Great South Wall passes through this area. The foreshore cable installation area, temporary landfall works area and temporary access ramp to the intertidal area will be located within this area. Beyond this, the intertidal area of Dublin Bay separates the onshore development area from the coastline of Sandymount Strand to the south.

53. The onshore export cable route extends between the landfall and onshore substation site via Shellybanks Road, which runs adjacent to Dublin Waste to Energy facility, and is currently used to access parking for Ringsend Waste Water Treatment Plant (WWTP) and storage areas owned by Dublin Port Company. This route connects to Pigeon House Road at its northern extent, and is lined on either side by non-native trees and scrub.

54. The onshore substation is situated to the north of Pigeon House Road and Ringsend WWTP. The site currently comprises stormwater tanks, rough grassland, brownfield land, and spoil. To the east lie the former Pigeon House Power Station and ESB Poolbeg Generating Station, which comprises decommissioned elements, including the distinctive chimneys and operational elements associated with the Poolbeg Combined Cycle Gas Turbine (CCGT) Plant. To the west is the cooling water discharge channel associated with the ESB Dublin Bay Power Plant, and Dublin Waste to Energy facility.

55. A proposed access road linking the onshore substation to Pigeon House Road will extend west from the onshore substation across a proposed bridge over the cooling water discharge channel, before joining Pigeon House Road via the existing access road to Ecocem Dublin Plant.

56. The proposed route for the ESBN network cables passes to the east and south of the onshore substation site, along the route of the existing eastern access road. It then passes through an area of hardstanding to the south of the former Pigeon House Hotel, before crossing Pigeon House Road. Where Pigeon House Road bends to the south, to the east of Ringsend WWTP, the proposed ESBN network cable route continues along it and connects to the site of the Poolbeg 220kV substation located to the east of this road. This section of Pigeon House Road features tree planting to screen views of Ringsend WWTP.

57. The offshore export cable corridor will run under the surface of the intertidal area mudflats to landfall.

58. The value of views within the onshore development area is considered to be low due to the surrounding industrial structures, increasing in value at the landfall site on account of the more natural landscape features, such as woodland and scrub, and extensive views across the intertidal area and Sandymount Strand.

59. There are limited features of higher value within the onshore development area. Value is considered to be low due to the existing predominantly industrial land use and lack of any landscape planning designation that would otherwise heighten the value of the area.

60. Landscape susceptibility to change associated with the OTI and landfall works is considered to be low due to the existing industrial character and relatively limited amenity value across the onshore development area. The susceptibility of the undeveloped intertidal mudflats to the proposed change would be slightly higher; however, this is tempered by the fact that the proposed changes within that area are temporary and that the mudflats will be returned to their current state following construction.

61. Overall, taking into account the low value and low susceptibility, the sensitivity of the landscape within the onshore development area and intertidal area is considered to be low.

23.6.4 Landscape and townscape character areas

62. In 2004, Ireland signed and ratified the Council of Europe's European Landscape Convention (ELC). As a consequence, the Irish Government is obliged to implement policy changes and objectives concerning the management, protection, and planning of the landscape in Ireland.

63. The National Landscape Strategy for Ireland 2015–2025 sets out six core objectives with associated actions to ensure compliance with the ELC, one of which is to develop a national Landscape Character Assessment for Ireland. At the time of writing, no national or regional Landscape Character Assessment covering DCC has been published, although there is an objective in the DCC Development Plan 2022–2028 (Objective GI06) to create a Landscape Character Assessment specific to the DCC administrative area.

64. Following discussions with DCC during consultation, it was agreed that in the absence of a Landscape Character Assessment, landscape character types (LCTs) would be identified by the assessor of the CWP Project and taken forward for assessment. Following consultation, this methodology was updated and townscape character areas (TCAs) and landscape character areas (LCAs) have been identified.

65. In order to identify LCAs and TCAs, the following was undertaken:

- A review of the following documents:
    - Ordnance Survey Ireland mapping;
    - DCC Development Plan 2022–2028 (DCC, 2022);
    - Poolbeg West Planning Scheme, April 2019 (DCC, 2019); and
    - Literature listed in the bibliography.
- A site visit to:
    - The onshore development area; and
    - Travel through the wider LVIA study area (within 5 km), including the areas of Clontarf, North Bull Island, East Point, Poolbeg Peninsula, Sandymount, Merrion, Booterstown, and Blackrock.

66. Following the above, a series of TCAs and LCAs were identified within the LVIA study area based on their location and distinct character (see **Figure 23.4**: Townscape and landscape character with obstructed ZTV):

- Poolbeg Peninsula TCA;
- Mudflats LCA;
- Clontarf TCA;
- North Bull Island TCA;
- East Wall TCA;
- Dublin Docklands TCA;
- South Docklands, Irishtown and Ringsend TCA;
- Sandymount TCA;
- Merrion TCA; and

- Booterstown and Blackrock TCA.

67. A review of the onshore substation with obstructed ZTV mapping (**Figure 23.4**; **Figure 23.5**) combined with a site visit established which of the above will likely experience visibility of the OTI, landfall works, and onshore substation, and the degree to which such visibility has the potential to alter the townscape / landscape character of the respective TCA or LCA.

Table 23-4 Preliminary Assessment of Character Types

TCA / LCA	Preliminary Assessment
1. Clontarf TCA	Located approximately 2 km to the north of the onshore development area. Although the ZTV indicates theoretical visibility of the onshore substation, particularly along the promenade at the southern extent of the TCA, there is no potential for significant effects on townscape character within this TCA. This is due to the existing industrial character of the Poolbeg Peninsula TCA, within which the OTI will be located. There may be views of construction activity within the landfall area from parts of the TCA, but this will be seen at distances of approximately 3 km, and beyond industrial activity within the Poolbeg Peninsula TCA. Not considered within detailed assessment.
2. Dublin Docklands TCA	Located less than 500 m north of the onshore development area. The ZTV indicates relatively widespread theoretical visibility of the onshore substation across southern and eastern parts of the TCA. However, townscape character is heavily influenced by the loading and unloading of shipping, and the area is generally industrial in nature. Much of the TCA, including storage areas, is largely off limits to the general public. There is no potential for significant effects. Views of construction activity within the landfall area will be limited. Not considered within detailed assessment.
3. East Wall TCA	Situated approximately 2 km to the north-west of the onshore development area. The ZTV indicates limited theoretical visibility of the onshore substation on account of intervening screening by Dublin docklands and built form within the East Wall TCA, and there will be limited visibility of construction activity within the landfall area. Not considered within detailed assessment.
4. South Docklands, Irishtown and Ringsend TCA	Located approximately 1 km to the west of the onshore development area. The ZTV indicates that theoretical visibility of the onshore substation will be very limited on account of screening by intervening industrial features and residential development, and visibility of construction activity in the landfall area will be limited. Not considered within detailed assessment.
5. Merrion TCA	Located approximately 2 km to the south of the onshore development area, and south of the landfall area. The onshore substation ZTV indicates that parts of the coastline will experience theoretical visibility of the onshore substation. In addition, it may be possible to see Compound A and landfall during construction, as well as construction activity in the landfall area. However, changes associated with the OTI will be seen at a distance of over 1.5 km, in the context of existing industrial development across the Poolbeg Peninsula TCA to the north-east. There is no potential for significant effects to occur as a result of visibility of the OTI and landfall works. Not considered within detailed assessment.

TCA / LCA	Preliminary Assessment
6. North Bull Island TCA	Located approximately 2 km to the north-east of the onshore development area. Although the ZTV indicates widespread theoretical visibility of the onshore substation, there is no potential for significant effects to occur in relation to visibility of the proposed onshore substation or views of construction activity in the landfall area. This is due to the existing industrial character of the Poolbeg Peninsula TCA, within which the OTI will be located. Not considered within detailed assessment.
7. Poolbeg Peninsula TCA	The onshore development area is located entirely within this TCA. There is therefore potential for direct and indirect effects to occur as a result of the OTI. However, the character of the Poolbeg Peninsula TCA is heavily influenced by the extensive existing industrial development across the area, which will limit the potential for significant effects to occur as a result of visibility of the OTI and landfall works from the wider TCA. Considered within detailed assessment.
8. Sandymount TCA	Located approximately 1 km to the south-west of the onshore development area and west of the landfall area. The ZTV indicates onshore substation visibility across parts of the TCA, including primarily along the coastline, while further inland screening will be provided by built form. However, there is no potential for significant effects to occur as a result of visibility of the OTI and landfall works, due to the existing industrial character of the Poolbeg Peninsula TCA, within which the OTI will be located, and the underground nature of the offshore cable route through the adjacent mudflats and to the landfall, which will have a temporary impact on the views from the Sandymount TCA during construction. Not considered within detailed assessment.
9. Booterstown and Blackrock TCA	Located approximately 3.5 km to the south-west of the onshore development area, the onshore substation ZTV indicates theoretical visibility of the onshore substation along the coastline of the TCA and will also include views of the landfall and the offshore cable route during construction, although the size and scale of the change will be small. There is no potential for significant effects to occur as a result of visibility of the OTI and landfall works, due to the existing industrial character of the Poolbeg Peninsula TCA, within which it will be located or seen in the context of. Not considered within detailed assessment.
10. Mudflats LCA	Located directly to the south of the onshore development area and crossed by the below ground offshore export cables. The onshore substation ZTV indicates that there will be widespread theoretical visibility throughout this LCA, and there will be direct effects during the construction phase, as a result of construction activity within this LCA. There will be very limited potential for significant effects during the O&M phase. Effects during construction phase considered within detailed assessment.

68. Only Poolbeg Peninsula TCA and Mudflats LCA have been taken forward for detailed assessment. This is due to the limited potential for significant effects on landscape / townscape character throughout the wider LVIA study area, as a result of the industrial nature of the OTI and landfall works, which will be in keeping with the existing character of the Poolbeg Peninsula TCA. The baseline description of these receptors is provided in **Section 23.10**.

23.6.5 Views and visual amenity

Overview

69. The visual baseline focuses on and describes:

- The area in which the OTI and landfall works may be visible, as informed by the onshore substation ZTV (**Figure 23.5**);
- The different groups of people who may experience views of the OTI and landfall works (visual receptors) (**Figure 23.5**);
- The viewpoints where they will be affected; and
- The nature of views at those points.

70. As described within the landscape / townscape character baseline above, there are open views over the Irish Sea and Dublin Bay from parts of the LVIA study area, including in particular the south-eastern coastline of Dublin, around Sandymount, from the Poolbeg Peninsula, from North Bull Island, and from coastal parts of Clontarf. Sandymount Promenade, Clontarf Promenade, and North Bull Island form important amenity spaces from which there are open views out to sea. Views towards the coast are more restricted from inland parts of the LVIA study area, due to screening by intervening built form.

71. Looking towards the onshore development area, and the Poolbeg Peninsula more broadly, from other parts of the LVIA study area, views are primarily industrial in nature, with a distinctive skyline formed by a number of large-scale industrial uses, including ESB Dublin Bay Power Plant, Dublin Waste to Energy facility, the former Pigeon House Power Station and ESB Poolbeg Generating Station, and Ringsend WWTP.

ZTV

72. Visual effects will only occur where the OTI is visible and its introduction changes or influences the visual amenity and view experienced by people. The area from which the OTI may be visible is defined by the ZTV, shown in **Figure 23.5**. The ZTV reflects the maximum parameters of the OTI, as defined within **Chapter 4 Project Description**.

73. The ZTV has been calculated using digital terrain data, incorporating Digital Surface Model data to convey the screening effects of the built form. It does not take into account screening that may be provided by vegetation. It also does not indicate the decrease in visibility that occurs with increased distance from the OTI or atmospheric visibility due to the weather conditions. The ZTV is therefore likely to overstate the actual visibility of the OTI, which will be further screened by vegetation and the prevailing atmospheric conditions.

74. The ZTV (**Figure 23.5**) indicates that visibility will primarily occur within the following areas:

- Offshore areas to the south, south-east, east, north and north-east of the onshore development area;
- Coastline at the southern extent of Clontarf and eastern extent of Sandymount, Merrion, and Booterstown;
- Industrial areas across the Poolbeg Peninsula and Dublin docklands;
- Recreational amenity areas in Poolbeg, including Irishtown Nature Park, Sean Moore Park, and along the Great South Wall; and
- North Bull Island.

75. The ZTV indicates that notable areas from which there will be limited visibility of the OTI include inland areas to the north, south and west, and areas of open sea to the immediate south and south-east of the Poolbeg Peninsula.

Viewpoints

76. The term 'viewpoint' is used to describe a place from where a view is gained and that represents specific conditions or viewers (visual receptors).

77. Analysis of the ZTV, together with site knowledge and verification, were used to identify a provisional list of viewpoints. Following a review of the CWP Project, a desk-based survey, site verification and consultation with DCC on the 5 December 2022, a list of eight viewpoints was taken forward. Following further revision, an additional viewpoint has been included as a photomontage, but not taken forward for assessment, as described below.

78. The finalised list of selected viewpoints includes a variety of different types of view to represent the worst-case scenario of views of the OTI.

79. Although these selected viewpoints primarily represent visual receptors, their location within certain designated landscapes or TCAs / LCAs illustrate potential changes in the experiences from these areas, giving an indication of potential landscape / townscape effects. The predicted views from the selected viewpoints may therefore be cited as examples of such landscape / townscape effects within the landscape / townscape assessment, detailed in **Section 23.10** of this chapter.

80. The selected viewpoints are identified below in **Table 23-5**.

Table 23-5 Viewpoints

No.	Viewpoint	Distance to CWP project infrastructure (km)	Direction to onshore development area	Principal visual receptor	Landscape designation
1	Bull Road / Bull Wall	2.4	South	Recreational receptors	North Bull Island SAAO
2	Great South Wall	1.1	West	Recreational receptors	-
3	Pigeon House Road	0.13	North-east	Road users	-
4	Sandymount Promenade	1.5	North-east	Recreational and residential receptors	-
5	Sandymount Strand	1.2	North-east	Recreational and residential receptors	-
6	Clontarf	1.8	South	Recreational and residential receptors	-

No.	Viewpoint	Distance to CWP project infrastructure (km)	Direction to onshore development area	Principal visual receptor	Landscape designation
7	Strand Road	2.8	North	Recreational receptors	-
8	Dublin Port Ferry Terminal 1	0.38	South	Receptors travelling on ferries	-
9	Tom Clarke Bridge	2.0	South-east	Road users	-

81. A visualisation showing the baseline view and photomontage of the OTI from Tom Clarke Bridge is included in **Figure 23.18.03**. However, an assessment of effects experienced by receptors at this viewpoint is not included within the LVIA, as it is assessed that the limited extent of visibility and the context within which the onshore substation would be seen would not give rise to a significant effect. Viewpoint 9 is therefore scoped out of further assessment, although a visualisation is provided for reference and to illustrate the limited visibility from the bridge.

82. The existing view and sensitivity to change for each of the viewpoints included in the detailed assessment is described in the viewpoint assessment in **Section 23.10**. Baseline photographic panoramas showing the existing view from each of these viewpoints are shown in **Figure 23.10.02**–**23.17.02**.

Principal visual receptors

83. **Table 23-6** below provides a preliminary review of visual receptors to be scoped in and out of the assessment.

Table 23-6 Preliminary assessment of visual receptors

Visual receptors	Preliminary assessment
People using recreational areas / routes	
Clontarf Promenade	The ZTV indicates that recreational receptors at Clontarf Promenade are likely to experience theoretical visibility of the OTI, including from the main footpath, greenspace, benches, shelters and Clontarf Baths. There is potential for significant effects to occur. Viewpoint 6 represents views experienced by these receptors.
Bull Wall	The ZTV indicates that recreational receptors on the Bull Wall are likely to experience theoretical visibility of the OTI, including some views which are likely to be uninterrupted by screening by the docklands. There is potential for significant effects to occur. Viewpoint 1 represents views experienced by these receptors.
North Bull Island	The ZTV indicates that recreational receptors on North Bull Island are likely to experience theoretical visibility of the OTI. However, from the majority of this area, the OTI will be seen in the context of existing industrial development on Poolbeg Peninsula, at a distance of more than 2 km. The change associated with the OTI is not considered to have the

Visual receptors	Preliminary assessment
	potential to result in significant effects. Not included within detailed assessment.
Footpath between Sandymount and the Great South Wall	The ZTV indicates that recreational receptors on the footpath between Sandymount and the Great South Wall will experience theoretical visibility of the OTI and landfall works across parts, although this is limited as a result of screening by landform and existing industrial development. Significant effects are considered more likely to occur where there is greater visibility of the OTI and landfall works, generally at greater distances from the onshore development area. Views experienced by receptors along these parts of the route are represented by Viewpoints 2 and 5. A separate assessment of views along the full extent of the footpath is also included.
Irishtown Nature Park	The ZTV indicates that recreational receptors within this area will have visibility of the OTI. However, actual visibility will be limited by woodland across the area. The OTI and landfall works are not considered to have the potential to result in significant effects on recreational receptors across this area. Not considered further.
Sandymount Promenade	The ZTV indicates that recreational receptors at Sandymount Promenade are likely to experience theoretical visibility of the OTI, including from the main footpath, greenspace, benches and shelters. There is potential for significant effects to occur as a result of visibility of the OTI and landfall works. Viewpoints 4, 5 and 7 represent views experienced by these receptors.
People in residential areas	
Sandymount	The ZTV indicates that residential receptors within properties located along the coastline within Sandymount will experience theoretical visibility of the OTI, particularly towards the north of Sandymount, along Beach Road. There is potential for significant effects to occur as a result of views of the OTI and landfall works. Viewpoint 4 represents views experienced by residential receptors on Beach Road, while viewpoints 5 and 7 represent views experienced by residential receptors further south within Sandymount.
Clontarf	The ZTV indicates that residential receptors within properties located along the coastline within Clontarf will experience theoretical visibility of the OTI. There is potential for significant effects to occur. Viewpoint 6 represents views experienced by these receptors.
People using roads and routes	
Clontarf Road (R807)	The ZTV indicates that road users travelling on Clontarf Road, located to the north of Clontarf Promenade, will experience theoretical visibility of the OTI. However, the opportunity for significant effects is considered to be limited, due to intervening vegetation, the oblique direction of views towards the onshore development area, the scale of the change, and the speed of road users travelling along this route. Not considered further.
Strand Road (R131)	The ZTV indicates that road users travelling on Strand Road, located to the west of Sandymount Promenade, will experience theoretical visibility of the OTI. However, the opportunity for significant effects is considered

Visual receptors	Preliminary assessment
	to be limited, due the scale of the change and the speed of road users travelling along this route. Not considered further.
Pigeon House Road	The ZTV indicates that road users travelling on Pigeon House Road, located in close proximity and partially within the onshore development area, will experience theoretical visibility of the OTI. These receptors may be recreational receptors travelling to Irishtown Nature Park and / or the Great South Wall. There is potential for significant effects to occur. Viewpoint 3 represents views experienced by receptors along this route in close proximity to the onshore substation site. A separate assessment of views along the full extent of the route is also included.
Ferries and small craft within Dublin Bay	The ZTV indicates that people travelling on ferries and small craft within Dublin Bay will experience theoretical visibility of the OTI, including close proximity views on departure and arrival into Terminal 1 at Dublin Port. There is potential for significant effects to occur. Viewpoint 8 represents views experienced by these receptors.

84. The views of people from the following locations have been scoped into the assessment:

- Clontarf Promenade;
- Bull Wall;
- Footpath between Sandymount and the Great South Wall;
- Sandymount Promenade;
- Sandymount;
- Clontarf;
- Pigeon House Road; and
- Ferries and small craft within Dublin Bay.

85. Views experienced by these receptors are generally included within the viewpoint assessment. Separate assessments of the impacts on principal visual receptors are included for people travelling along the footpath between Sandymount and the Great South Wall and for users of Pigeon House Road. A baseline description and assessment of effects arising from the OTI and landfall works on receptors travelling on this footpath and road are included within the visual assessment in **Section 23.10**.

23.6.6 Climate change and natural trends

86. Aspects that may cause changes to the baseline landscape and visual resource are likely to take two forms; measures to mitigate against the adverse effects of climate change and measures put in place to try and limit its future effects. In addition, the long-term effects of the COVID-19 pandemic and the recovery from it may have a supplementary effect.

87. The need for increased flood defence measures is likely to be a driver for change in relation to the coastline and water courses as well as potential changes to other land use practices.

88. Net Zero carbon emission targets are likely to see an increase in renewable energy development, which is likely to include further onshore and offshore wind farm development, tidal and wave power projects, and solar development. These may in turn require further grid infrastructure to connect with the national grid and consumers.

89. Increased walking, cycling, and public transport infrastructure may result in changes within urban and rural areas to accommodate this with the aim of reducing vehicular travel and providing increased amenity resources.

23.6.7 Predicted future baseline

90. The future baseline of the onshore development area and wider Poolbeg Peninsula will be linked to the development of Dublin docklands. This will include responding to short-term objectives arising from economic fluctuations to long-term trends in world shipping.

91. The Docklands Strategic Development Zone (SDZ) has been set up to create a strategic planning zone in the North Wall and Grand Canal Areas with the aim of developing the area for commercial and residential use, the latter being in short supply. This could change the character of the surrounding area, although it is likely that the peninsula will continue to be home to many of Dublin's key infrastructure sites, which will modernise over time as new technology becomes available. Other likely trends at Dublin docklands are creating larger docking areas for cruise liners and container shipping.

92. It is noted that the onshore development area falls within the lands subject to development by Dublin Port Company as part of their Masterplan programme. Additionally, the northern part of the Poolbeg Peninsula, on which the onshore substation is located, is zoned Employment (Heavy) – Zone Z7 in the Dublin City Development Plan 2022–2028. Furthermore, part of the landfall area falls into the Poolbeg West SDZ. On this basis, the onshore development area could see some development and change in future years, subject to planning permission.

93. Beyond the docklands, it is likely that Clontarf, North Bull Island, and Sandymount will retain their character through planning restrictions.

23.7 Scope of the assessment

94. An EIA Scoping Report for the OTI was published on the 6 May 2021. The Scoping Report was uploaded to the CWP Project website and shared with regulators, prescribed bodies and other relevant consultees, inviting them to provide relevant information and to comment on the proposed approach being adopted by the Applicant in relation to the onshore elements of the EIA.

95. Based on responses to the Scoping Report, further consultation and refinement of the CWP Project design, potential impacts to landscape / townscape and visual resources scoped into the assessment are listed below in **Table 23-7**.

Table 23-7 Potential impacts scoped into the assessment

Impact No.	Description of impact	Notes
Construction		
Impact 1	Impacts on landscape features.	Associated with site clearance, including the removal of existing vegetation to facilitate the establishment of temporary construction facilities, excavation, creation of landfall and temporary access ramp, onshore export cable laying activities, land reclamation,

Impact No.	Description of impact	Notes
		revetments, access road, and onshore substation construction. Landscape features affected are located within the onshore development area.
Impact 2	Impacts on landscape / townscape character.	Associated with views from the wider LVIA study area of landfall, cable laying, and onshore substation construction. Receptors with the potential to experience significant effects as a result of these impacts comprise the Poolbeg Peninsula TCA and Mudflats LCA.
Impact 3	Impacts on visual amenity.	Associated with views from the wider LVIA study area of landfall, cable laying, and onshore substation construction. Receptors with the potential to experience significant effects as a result of these impacts comprise visual receptors within the LVIA study area, as represented by the identified viewpoints or assessed as principal visual receptors.
Operation and Maintenance		
Impact 1	Impacts on landscape features within the onshore development area as a result of the operation and maintenance of the OTI.	Associated with landfall, onshore export cable, access road, onshore substation, and revetment, where trees and vegetation cannot be replanted in the vicinity. Receptors affected are located within the onshore development area.
Impact 2	Impacts on landscape / townscape character as a consequence of views of the operation and maintenance of the OTI.	Associated with views of changes in landform, planting around and surface features above the TJBs at landfall: the access road, onshore substation, and revetment; and resulting from the removal of landscape features. Receptors with the potential to experience significant effects as a result of these impacts comprise the Poolbeg Peninsula TCA.
Impact 3	Impacts on visual amenity as a consequence of views of the operation and maintenance of the OTI.	Associated with views of changes in landform, planting around and surface features above the TJBs at landfall: the access road, onshore

Impact No.	Description of impact	Notes
		substation, and revetment; and resulting from the removal of landscape features. Receptors with the potential to experience significant effects as a result of these impacts comprise visual receptors within the LVIA study area, as represented by the identified viewpoints or assessed as principal visual receptors.
Decommissioning		
Impact 1	Impacts on the landscape features within the onshore development area as a result of the decommissioning of the OTI.	Associated with the removal of all components of the OTI from within the onshore development area, including landfall, TJBs, onshore export cable, onshore substation, and revetment. Landscape features affected are located within the onshore development area. Effects are considered to be similar in nature and scale to construction effects, but of shorter duration.
Impact 2	Impacts on landscape / townscape character as a consequence of views of the decommissioning of the OTI.	Associated with views of the removal of all components of the OTI throughout the wider LVIA study area, including the TJBs, onshore export cable, onshore substation, and revetment, as well as resulting from the removal of landscape features. Receptors with the potential to experience significant effects as a result of these impacts comprise the Poolbeg Peninsula TCA and Mudflats LCA. Effects are considered to be similar in nature and scale to construction effects, but of shorter duration.
Impact 3	Impacts on visual amenity as a consequence of views of the decommissioning of the OTI.	Associated with views of the removal of all components of the OTI throughout the wider LVIA study area, including the TJBs, onshore export cable, onshore substation, and revetment. As described above, receptors with the potential to experience significant effects as a result of these impacts comprise visual receptors within the

Impact No.	Description of impact	Notes
		LVIA study area, as represented by the identified viewpoints or assessed as principal visual receptors. Effects are considered to be similar in nature and scale to construction effects, but of shorter duration.

96. As noted above, the effects during decommissioning are considered to be the same or less than the effects that will occur during construction and are not considered in detail within the LVIA.

97. Based on responses to the Scoping Report, further consultation and refinement of the CWP Project design, potential impacts to landscape / townscape and visual receptors scoped out of the assessment are listed below in **Table 23-8**.

Table 23-8 Potential impacts scoped out of the assessment

Description of impact	Justification for scoping out
Impacts on receptors beyond 5 km from the onshore substation	As described in **Section 23.4**, 5km has been determined as an appropriate LVIA study area for the consideration of landscape / townscape and visual effects, given the nature and scale of the proposals, and ZTV coverage (**Figure 23.3**–**23.5**). Significant effects beyond 5 km from the onshore substation are not considered likely and have been scoped out of the assessment.
Impacts on landscape / townscape receptors beyond the Poolbeg Peninsula TCA and Mudflats LCA during the construction phase	As described in the preliminary assessment in **Section 23.6**, there is no potential for significant effects to occur beyond the Poolbeg Peninsula TCA and Mudflats LCA, primarily due to the existing industrial nature of the Poolbeg Peninsula, in which the OTI will be located, and limited visibility with increasing distance from the onshore development area.
Impacts on landscape / townscape receptors beyond the Poolbeg Peninsula TCA during the O&M phase	As described in the preliminary assessment in **Section 23.6**, there is no potential for significant effects to occur beyond the Poolbeg Peninsula TCA, primarily due to the containment of O&M phase infrastructure within this TCA, as well as the existing industrial nature of this TCA and limited visibility with increasing distance from the onshore development area.
Impacts on landscape designations	There is one landscape designation within the LVIA study area, comprising North Bull Island SAAO, as described in **Section 23.4**. However, there are no special qualities recorded for this area, and no clear identification of the boundary of the landscape designation. An assessment of effects on the landscape designation is not possible, and consideration has therefore been scoped out except for when considering the value and sensitivity of Viewpoint 1, which is located on the Bull Wall, adjacent to North Bull Island.
Impacts on visual receptors at Viewpoint 9: Tom Clarke Bridge	As described in **Section 23.6** above, an assessment of effects experienced by visual receptors at Viewpoint 9: Tom Clarke Bridge is not included, as it is assessed that the limited extent of visibility and

Description of impact	Justification for scoping out
	the context within which the onshore substation would be seen would not give rise to a significant effect.
Impacts on landscape / townscape and visual receptors during decommissioning phase	As described above, the effects during decommissioning are considered to be the same or less than the effects that will occur during construction and are not considered in detail within the LVIA.

23.8 Assessment parameters

98. Complex, large-scale infrastructure projects with a terrestrial and marine interface, such as the CWP Project, are consented and constructed over extended timeframes. The ability to adapt to changing supply chain, policy or environmental conditions and to make use of the best available information to feed into project design, promotes environmentally sound and sustainable development. This ultimately reduces project development costs and therefore electricity costs for consumers and reduces CO_2 emissions.

99. In this regard, the approach to the design development of the CWP Project has sought to introduce flexibility where required, among other things, to enable the best available technology to be constructed and to respond to dynamic maritime conditions, whilst at the same time to specify project boundaries, project components and project parameters wherever possible, whilst having regard to known environmental constraints.

100. **Chapter 4 Project Description** describes the design approach that has been taken for each component of the CWP Project. Wherever possible, the location and detailed parameters of the CWP Project components are identified and described in full within the EIAR. However, for the reasons outlined above, certain design decisions and installation methods will be confirmed post-consent, requiring a degree of flexibility in the planning consent.

101. Where necessary, flexibility is sought in terms of:

- Up to two options for certain permanent infrastructure details and layouts, such as the WTG layouts.
- Dimensional flexibility: described as a limited parameter range, i.e., upper and lower values for a given detail, such as cable length.
- Locational flexibility of permanent infrastructure: described as limit of deviation (LoD) from a specific point or alignment.

102. The CWP Project had to procure an opinion from An Bord Pleanála to confirm that it was appropriate that this application be made and determined before certain details of the development were confirmed. An Bord Pleanála issued that opinion on 25 March 2024 (amended in May 2024) and it confirms that the CWP Project could make an application for permission before the details of certain permanent infrastructure, described in **Section 4.3** of **Chapter 4 Project Description**, is confirmed.

103. In addition, the application for permission relies on the standard flexibility for the final choice of installation methods and O&M activities.

104. Notwithstanding the flexibility in design and methods, the EIAR identifies, describes, and assesses all of the likely significant impacts of the CWP Project on the environment.

Options and dimensional flexibility

105. Where the application for permission seeks options or dimensional flexibility for infrastructure or installation methods, the impacts on the environment are assessed using a representative scenario approach. A “representative scenario” is a combination of options and dimensional flexibility that has been selected by the author of this EIAR chapter to represent all of the likely significant effects of the project on the environment. Sometimes, the author will have to consider several representative scenarios to ensure all impacts are identified, described and assessed.

106. For LVIA, the infrastructure design and installation techniques with potential to give rise to landscape and visual impacts have been confirmed in the planning application and consequently the assessment is confined to a single scenario for all construction and O&M phase impacts.

Limit of deviation

107. Where the application for permission seeks locational flexibility for infrastructure, the impacts on the environment are assessed using a LoD, which is the furthest distance at which a specified element of the CWP Project can be constructed.

108. LoDs within the onshore development area (landward of the high water mark) are noted below in **Table 23-9**. A summary is also provided on the potential for the LoD to give rise to any new or materially different effects compared to those presented in **Section 23.10** of this chapter.

109. This chapter assesses the specific preferred location for permanent infrastructure; however, where the potential for LoD to cause a new or materially different effect is identified, then this is noted in **Table 23-10** and is considered in more detail within **Section 23.10** of this chapter.

Table 23-9 Design parameters relevant to LVIA

Impact	Detail	Value	Notes / assumptions
Construction			
Impact 1: Impacts on landscape features within the onshore development area. **Impact 2**: Impacts on landscape / townscape character. **Impact 3**: Impacts on visual amenity.	**Landfall**		The total anticipated duration of landfall works across each phase is 10–12 months. The total duration to complete tunnel construction and cable duct installation is 21 months. The total anticipated duration of works to construct the OTI is 36 months.
	TJBs		
	Number of TJBs	3	
	TJB chamber dimensions (L x W x D) (m)	18 x 4 x 3	
	Total volume of excavated material from construction of the TJBs and link boxes (m^3)	1,992	
	Total volume of excavated material from construction of the TJBs and link boxes removed off site for disposal (m^3)	1,992	
	Landfall cable ducts		
	Number of landfall cable ducts	3	
	Dimensions of temporary access ramp (including route from main compound) (L x W) (m)	60 x 10	
	Area of site clearance for temporary access ramp (m^2)	600	
	Temporary cofferdam dimensions (L x W) (m)	40 x 75	
	Total seabed disturbed by cofferdam (m^2)	6100	
	Typical duration of temporary access ramp (months)	24	
	Area of site clearance at the TJBs (m^2)	2,200	
	Area of site clearance between TJBs and the HWM (m^2)	2,200	
	Total area of site clearance, including temporary access ramp to intertidal area (m^2)	5,000	

Impact	Detail	Value	Notes / assumptions
	Duration of temporary cofferdam once constructed (weeks)	4	
	Duration of temporary footpath diversion (weeks)	8	
	Intertidal offshore export cables		
	Number of mid support pontoons (MSPs)	1	
	MSP dimensions (m)	20 x 50	
	Number of tensioner platforms	3	
	Tensioner platform dimensions (m)	15 x 10	
	Number of intertidal equipment storage platforms	1	
	Intertidal equipment storage platform dimensions (m)	70 x 25	
	Distance within the transition zone over which cables will be buried in open cut trenches (km)	1.7	
	Width of seabed in transition zone affected by installation of cables using open cut trenching (m)	40	
	Distance within the transition zone over which cables will be buried using a shallow water trenching tool (km)	2	
	Width of seabed in transition zone affected by installation of cables using a shallow water trenching tool (m)	20	
	Total area of seabed in transition zone affected by installation of cables using either open cut trenching or a shallow water trenching tool (m^2)	108,000	
	Total area of seabed disturbed by support structures and cable burial (m^2)	114,900	

Impact	Detail	Value	Notes / assumptions
	Onshore transmission infrastructure		
	Onshore export cables		
	Tunnel total length (m)	740	
	Number of tunnel shafts	3	
	Total volume of excavated material for tunnel installation (m^3)	22,085	
	Total volume of material exported from site for tunnel installation (m^3)	22,085	
	Total volume of material imported to site for tunnel installation (m^3)	9,356	
	Overall duration to complete tunnel construction and cable duct installation (months)	21	
	Onshore substation		
	Operational site area (m^2)	16,050	
	ESBN network cables		
	Length of ESBN network cable ducts and associated cables (m)	400	
	Number of HDD sections	1	
	Total length of HDD section (m)	135	
	Construction compounds		
	Compound A area (m^2)	19,800	
	Compound B area (m^2)	32,300	

Impact	Detail	Value	Notes / assumptions
	Compound C area (m^2)	3,350	
	Compound D area (m^2)	360	
	Total footprint of scrub lost (m^2)	103	
Operations and maintenance			
Impact 1: Impacts on landscape features within the onshore development area. **Impact 2**: Impacts on landscape / townscape character. **Impact 3**: Impacts on visual amenity.	**Landfall**		The total anticipated duration of the operation and maintenance of the TJBs and onshore substation is 25 years.
	TJBs and temporary access ramp		
	Number of TJBs	3	
	Total footprint of permanent above ground infrastructure (m^2)	1,200	
	Approximate number of trees lost	10 - 15	
	Total footprint of scrub lost at landfall (m^2)	2,915	
	Total footprint of scrub lost at temporary access ramp for intertidal works (m^2)	1,558	
	Total footprint of proposed native woodland planting (m^2)	3,980	
	Total footprint of proposed native shrub planting (m^2)	1,193	
	Total footprint of proposed native wildflower planting (m^2)	571	
	Re-establishment of vegetation cleared from the southern berm at the landfall and temporary access ramp area. Additional woodland planting established on the berms between these areas to mitigate biodiversity losses elsewhere.		
	Onshore transmission infrastructure		
	Onshore export cables		
	Approximate number of trees lost	8–12	

Impact	Detail	Value	Notes / assumptions
	Total footprint of scrub lost (m^2)	1,434	
	Total footprint of proposed native woodland planting (m^2)	117	
	Total footprint of proposed native shrub planting (m^2)	1,162	
	Total footprint of proposed native wildflower planting (m^2)	480	
	Establishment of shrub areas where replanting of trees is constrained by presence of underground cables and re-establishment of tree/woodland areas in unconstrained locations.		
	Onshore substation		
	Total length of combi-wall (m)	230	
	Total length of new revetments (m)	150	
	Width of revetement from toe to crest (m)	10	
	Height of the revetments (+mOD)	5.24	
	Area of reclaimed land (m^2)	1,800	
	Platform level (+mOD)	5.00	
	Number of buildings	4	
	Main GIS building dimensions (L x W x H) (m)	62.75 x 20.67 x 35.20 (+mOD)	
	ESB GIS building dimensions (L x W x H) (m)	35.97 x 15.95 x 23.10 (+mOD)	
	ESB MV building dimensions (L x W x H) (m)	10.14 x 5.64 x 8.07 (+mOD)	
	Statcom building dimensions (L x W x H) (m)	94.02 x 27.87 x 29.50 (+mOD)	
	Height of lightening protection masts above buildings (m)	3	

Impact	Detail	Value	Notes / assumptions
	Length of new access bridge (m)	25	
	Width of new access bridge (m)	9.5	
	Total footprint of scrub lost (m^2)	1,629	
	ESBN network cables		
	Total footprint of scrub lost associated with cables (m^2)	739	
	Total footprint of scrub lost associated with temporary HDD compound (m^2)	733	
	Total footprint of proposed native shrub planting (m^2)	353	
Decommissioning			
Impact 1: Impacts on landscape features within the onshore development area. **Impact 2**: Impacts on landscape / townscape character. **Impact 3**: Impacts on visual amenity	It is recognised that legislation and industry best practice change over time. However, for the purposes of the EIA, at the end of the operational lifetime of the CWP Project, it is assumed that all OTI will be removed where practical to do so. In this regard, for the purposes of an assessment scenario for decommissioning impacts, the following assumptions have been made: • The TJBs and onshore export cables (including the cable ducting) shall be completely removed. • The landfall cable ducts and associated cables shall be completely removed. • The underground tunnel, within which the onshore export cables will be installed shall be left in situ and may be re-used for the same or another purpose. • The onshore substation buildings and electrical infrastructure shall be completely removed. • The reclaimed land, substation platform, perimeter structures and the new access bridge at the onshore substation site will remain in situ and may re-used for the same or another purpose. • The ESBN network cables (including the cable ducting) shall be completely removed. The general sequence for decommissioning is likely to include: • Dismantling and removal of electrical equipment; • Removal of ducting and cabling, where practical to do so; • Removal and demolition of buildings, fences, and services equipment; and • Reinstatement and landscaping works.		

Impact	Detail	Value	Notes / assumptions
	Closer to the time of decommissioning, it may be decided that removal of certain infrastructure, such as the TJBs, landfall cable ducts and associated cables, onshore export cables and ESBN networks cables, would lead to a greater environmental impact than leaving the components in situ. In this case it may be preferable not to remove these components at the end of their operational life. In any case, the final requirements for decommissioning of the OTI, including landfall infrastructure, will be agreed at the time with the relevant statutory consultees. It is anticipated that the impacts will be no greater than those identified for the construction phase.		

Table 23-10 Limit of deviation relevant to LVIA

Project component	Limit of deviation	LoD impact summary
TJBs	0.5 m either side (i.e., east / west) of the preferred TJB location	The LoD does not introduce any new impact receptor pathways that have not already been considered as part of the assessment, and changes associated with the LoD are not considered to be materially greater in magnitude than those which have been considered as part of the assessment.
Landfall cable ducts	Defined LoD boundary (see **Chapter 4 Project Description**)	
Location of onshore substation revetment perimeter structure	Defined LoD for sheet piling at toe of the revetement	

23.9 Primary mitigation measures

110. Throughout the evolution of the CWP Project, measures have been adopted as part of the evolution of the project design and approach to construction to avoid or otherwise reduce adverse impacts on the environment. These mitigation measures are referred to as 'primary mitigation' and are an inherent part of the CWP Project that are effectively 'built in' to the impact assessment.

111. Primary mitigation measures relevant to LVIA are set out in **Table 23-11**. Where additional mitigation measures are proposed, these are detailed in the impact assessment (**Section 23.10**). Additional mitigation includes measures that are not incorporated into the design of the CWP Project and require further activity to secure the required outcome of avoiding or reducing impact significance.

Table 23-11 Primary mitigation measures

Project Element	Description
Landfall	The construction methodology for the landfall infrastructure will ensure that there is a clear, safe access path maintained between Irishtown Nature Park and Sean Moore Park. While the existing path may be temporarily closed for landfall cable duct installation by open cut trenching, an alternative route will be maintained such that through access is always maintained.
Offshore export cable	Offshore export cable ducts will be installed beneath the seabed in the intertidal area in Dublin Bay. Therefore no impacts to recreational users of Dublin Bay shall be experienced during the O&M phase of the CWP Project.
Onshore substation	The site selection and consideration of alternatives process for the CWP Project (see EIAR Chapter 3 Site Selection and Consideration of Alternatives) considered a number of alternative locations for the onshore substation site. The process evaluated alternative sites using a multi-criteria assessment, which included a consideration of likely environmental effects. The main reasons for selecting the preferred onshore substation site included it's proximity to the grid connection point and within a heavily industrialised area. It is also located away from residential properties and areas of recreational amenity. The selection of the site is therefore considered a key driver for mitigation by avoidance.
Onshore substation	The design of the onshore substation has been developed to reduce the visual impact of the buildings where possible. It takes into account the need for the onshore substation buildings to achieve necessary engineering standards, whilst also recognising the importance of the surrounding buildings in the Poolbeg Peninsula. Key considerations included: - Material selection: The building facades have been designed to incorporate the architectural narrative of the past, present and future of the Poolbeg Peninsula, giving regard to the materials that currently surround the site; those being brick, stone and industrial metal. - Visual massing: The massing of the buildings has been broken up by utilising two materials across the facade, creating an upper and lower layer. These layers are made up of a grey masonary base and metal clad top layer. The layers allow the onshore subtation buildings to sit between and stitch together existing buildings in the Peninsula, from a historical and contempory context. - Colour selection: The selection of the grey colour was found to be less impactful to other colours and sits well with the blue-grey tones of the water frontage and Dublin sky."

Project Element	Description
Landfall	Protection of trees and scrub on berm during the construction phase where practicable.
Landscape and ecological mitigation proposals	Following construction works across the onshore development area, areas disturbed shall be reinstated in line with the landscape mitigation plans contained in **Figure 23.7** – **23.9**. These involve planting of three areas across the onshore development area, comprising the landfall, Shellybanks Road and Pigeon House Road. Proposals also include establishment of further woodland between the disturbed areas at the landfall and temporary access ramp resulting in a continuation of the woodland in the Irishtown Nature Park. At the landfall, proposals involve reinstatement of existing contours as far as possible, with woodland planting where possible and native shrub planting over the location of the onshore export cable and above existing services. There is also wildflower planting proposed alongside the existing footpath. On Shellybanks Road, proposals involve native shrub and woodland planting where possible within the area of clearance required for the tunnel compound. Wildflower planting is proposed alongside areas of woodland and native shrubs. On Pigeon House Road, proposals involve native shrub planting over the areas of clearance required for the ESBN network cable compound. In total, the areas of planting comprise 4,098m^2 of woodland planting, 2,708m^2 of native shrub planting, and 1,050m^2 of wildflower planting, resulting in a total of 7,856m^2 mitigation planting. All planted species will be certified native stock and from an approved supplier of the Green, Low-Carbon Agri-Environmental Scheme (GLAS). The replanting will include a variety of plant species which will increase the species diversity, particularly at the landfall site, which currently comprises dense bramble and invasive plant species.

23.10 Impact assessment

112. The potential environmental impacts arising from the construction, O&M, and decommissioning of the CWP Project are listed in **Table 23-9** along with the parameters against which each impact has been assessed. A description of the potential effect on landscape / townscape and visual receptors caused by each identified impact is given below. This is with the exception of decommissioning effects which, as noted in **Table 23-8**, are not assessed in detail. The effects during decommissioning are likely to be the same or less than the effects during construction.

113. The structure of the assessment reporting throughout this section has diverted from the template structure for a number of reasons. As described in **Appendix 23.2 LVIA Methodology**, the sensitivity of receptors is determined based on a combination of judgements of value and susceptibility. These judgements do not vary based on the phase of the project which is being assessed and also need to take account of the susceptibility to the proposed change as set out in **Section 23.8**. Therefore, for conciseness, the sensitivity of each receptor is described initially, followed by a description of the magnitude of change and significance of effect which are judged to be experienced by each receptor during the construction phase and O&M phase respectively.

114. Additionally, all mitigation relating to landscape / townscape and visual effects has been embedded into the design of the OTI and onshore development area. Therefore, there is no additional mitigation

proposed for LVIA, and residual effects will be as described in the assessment. Reporting of additional mitigation and residual effects is therefore also excluded from the following sections.

23.10.1 Effects on landscape features

Impact 1: Impacts on landscape features within the onshore development area

Naturally regenerated scrub

Baseline and receptor sensitivity

115. Within the onshore development area, naturally regenerated scrub is primarily located on the berms to the north of the footpath that runs between Sandymount and the Great South Wall, west of Irishtown Nature Park. The OTI will require the removal of two areas of scrub from this area, associated with the landfall and temporary access ramp. The scrub within these areas comprises species including extensive areas of bramble with widely spaced birch, ash, holm oak, and sycamore. This scrub has regenerated following alteration of the landform across this area associated with construction work in the area to the north of the berms. This area of naturally regenerated scrub currently provides some limited filtering and breaking up of views of infrastructure on the Poolbeg Peninsula from areas to the south, including Sandymount.

116. Further areas of scrub within the onshore development area will be removed to accommodate the OTI, including at the northern end of Shellybanks Road; within the onshore substation site; on Pigeon House Road, to the south of the former Pigeon House Hotel; and along the access track to the east of the onshore substation site. Species found within these areas include brambles and buddleia, and they have also regenerated from surrounding vegetation. These areas of scrub have a more limited role in filtering and breaking up views, and the scrub within the onshore substation site and access track in particular is located at a distance from publicly accessible areas.

117. Overall, these areas of scrub are considered to be of low value (in landscape and visual terms). The naturally regenerated scrub has a relatively limited characterising or visual influence on the surrounding landscape and limited association with other parts of the landscape, and is fenced off from the surrounding area. It has limited cultural and recreational value, although it does provide some perceptual value by filtering industrial infrastructure, including the Dublin Waste to Energy facility in views from the south, and forms a natural feature within an otherwise relatively industrial landscape.

118. In terms of susceptibility, the naturally regenerated scrub is considered to be of low susceptibility to changes associated with the OTI. These plants are not considered to be rare, and have regenerated from nearby areas of scrub. They are of limited distinctiveness and could be readily replaced or substituted.

119. Overall, taking into account the low value and low susceptibility, the sensitivity of naturally regenerated scrub within the onshore development area to changes associated with the OTI is considered to be low.

Magnitude of change and significance of effect during construction phase

120. The construction of the OTI will require the removal of several discrete areas of naturally regenerated scrub, including two areas required to accommodate alterations to the landform at the landfall; an area at the northern extent of Shellybanks Road required to accommodate a construction compound; an area within the onshore substation site; an area along the access track to the substation site required

to accommodate widening of this route; and an area to the north of Pigeon House Road and south of the former Pigeon House Hotel required to accommodate an HDD compound associated with the ESBN network cables. A relatively small overall area of scrub will be removed, and naturally regenerated scrub within other parts of the onshore development area will remain. Some small areas of scrub will also be removed at the landfall to accommodate tree planting associated with the mitigation proposals.

121. The change associated with the loss of the naturally regenerated scrub at the landfall and temporary access ramp will be limited in size and scale, and will represent a limited change to the extent of the overall naturally regenerated scrub within the onshore development area. The change will be experienced from a somewhat widespread geographic extent, with views available of the removal of this landscape element from parts of the LVIA study area to the south, including from the Great South Wall Walk, Sandymount Strand, and Sandymount Promenade. However, the naturally regenerated scrub is not a key landscape element, which reduces the magnitude of change associated with its removal. Other areas of removal of scrub will be difficult to perceive from publicly accessible locations, including, in particular, along the access track to the east of the onshore substation site. Clearance of the scrub on the onshore substation site will be perceived from a relatively limited geographical extent to the north, beyond Dublin Port. Views of the removal of scrub at the northern extent of Shellybanks Road and on Pigeon House Road will be perceived from a limited area in relatively close proximity, due to screening by intervening industrial development and surrounding vegetation. Overall, the magnitude of change associated with the construction phase is considered to be medium-low.

122. The sensitivity of naturally regenerated scrub within the onshore development area is considered to be low and the magnitude of the of impact is assessed as medium-low. Therefore (as per the matrix in **Appendix 23.2**), a **minor adverse** effect on naturally regenerated scrub is predicted, which is not significant. This change will be largely long-term and irreversible.

123. While areas of naturally regenerated scrub will be removed during the construction phase, and there will be associated minor adverse effects during the construction phase, new areas of native woodland and shrubs will be planted across those parts of the onshore development area from which naturally regenerated scrub is lost. These areas are shown in **Figure 23.7**–**23.9**. The total area of naturally regenerated scrub lost across the onshore development area is 8,462 m^2 while a total of 4,098 m^2 of native woodland and 2,708 m^2 of native shrubs will be planted.

Magnitude of change and significance of effect during O&M phase

124. The operation of the OTI will prevent replacement of the naturally regenerated scrub across a small area around the TJBs and on the onshore substation site. There will also be an area of permanent clearance to facilitate widening of the access track to the east of the onshore substation site. Across other areas of removal, mitigation proposals involve replacement of scrub or planting of woodland (see **Figure 23.7**–**23.9**). The area of permanent clearance around the TJBs will be difficult to perceive from publicly accessible areas due to screening by the reinstated landform and mitigation planting to the south. Loss of naturally regenerated scrub within the onshore substation site will be perceived from a wider area, primarily on the northern side of Dublin Port to the north. The naturally regenerated scrub is not a key landscape element, which will reduce the magnitude of change associated with its loss from the onshore development area. Overall, the magnitude of change associated with the O&M phase is considered to be low.

125. The sensitivity of naturally regenerated scrub within the onshore development area is considered to be low and the magnitude of the impact is assessed as low. Therefore (as per the matrix in **Appendix 23.2**), a **negligible** adverse effect on naturally regenerated scrub is predicted, which is not significant. This change will be largely long-term and irreversible.

126. While areas of naturally regenerated scrub will be removed during the construction phase, and there will be associated negligible adverse effects during the O&M phase, new areas of native woodland and shrubs will be planted across parts of the onshore development area from which naturally regenerated scrub is lost. These areas are shown in **Figure 23.7–23.9**. The total area of naturally regenerated scrub lost across the onshore development area is 8,462 m^2 while a total of 4,098 m^2 of native woodland and 2,708 m^2 of native shrubs will be planted.

23.10.2 Effects on landscape / townscape character

Impact 2: Impacts on landscape / townscape character within the LVIA study area

Poolbeg Peninsula TCA

Baseline and receptor sensitivity

127. The Poolbeg Peninsula extends eastwards from Ringsend to Poolbeg Lighthouse and is generally industrial in character, with some areas of open space. It forms the southern boundary of Dublin Port, and has historically been an important quay. The Great South Wall, which extends from the core of the TCA to the east into the Irish Sea, was created to ensure that sand did not block the channel leading to Dublin Port. It was constructed in two sections, with the first being completed in 1756. This comprised two parallel granite walls, infilled with rubble and brick, and finished with interlocking granite slabs. This replaced an earlier timber structure that was deemed unfit for purpose. A second section of the wall was completed in 1795, extending the wall further eastwards, resulting in a total length of 5.6 km. Poolbeg Lighthouse was constructed at the wall's eastern tip, and is still present today. Much of the wall is still evident with further modifications occurring in more recent times, such as the addition of rock armour at its base.

128. The area to the south of the quays has subsequently been reclaimed and developed; in particular, by heavy industry during the 20th and 21st centuries. Many of Dublin's major power, sewage, waste, storage, and port facilities are located here, as well as a number of industrial facilities, such as metal recycling and a cement plant. It also includes an active deep water berthing and docking facility on its northern edge. The majority of the area is land that has restricted public access, with the majority of people accessing the individual industrial areas to work.

129. The peninsula is predominantly industrial in character (**Figure 23.2**) with several areas of open space in the east and south. Irishtown Nature Park in the south, adjacent to the beach at Sandymount Strand, forms an area of higher recreational and amenity value amongst the industrial features. A footpath passes along the coastline at the south of the TCA, passing several small beaches, and connects these open spaces and beaches with the Great South Wall further east. Other features of amenity value include several historic artefacts associated with the port, public amenity areas where flower beds and borders are tended and woodland along the southern berms at Irishtown Nature Park.

130. Despite there being large-scale buildings on the peninsula, scale is considered to be medium on account of the narrowness of the peninsula and sense of enclosure. In particular, the onshore development area is bounded by the former Pigeon House Power Station and ESB Poolbeg Generating Station to the east, Ringsend WWTP to the south, and Dublin Waste to Energy facility to the east of Shellybanks Road. Both the TCA and onshore development area are relatively flat, the latter generally being 4.64 m ordnance datum Malin (ODM).

131. Although the TCA is heavily modified, some architectural and cultural heritage features can be considered rare, such as the Great South Wall, one of the longest in Europe, the former Pigeon House Power Station, the former Pigeon House Hotel, historic assets associated with the growth of Dublin

Port, and the decommissioned chimneys of the ESB Poolbeg Generating Station (**Figure 23.2**), which are now designated. The Pigeon House Harbour Conservation Area lies immediately to the east of the onshore substation site. There are no architectural or cultural heritage features that would be considered rare within the onshore development area.

132. Despite the overall industrial character of the peninsula, there are some areas of ecological and historical interest. From an ecological perspective, Irishtown Nature Park is located in the south of the peninsula, comprising woodland and grassland formed on rubble and waste, and is an important habitat for Brent geese (Plate 24-7). Towards the south-eastern extent of the TCA, between the sandy shores of Shellybanks Beach and the roadside along the peninsula, there is an extensive area of marram dunes. No areas of ecological or conservation interest have been recorded in the onshore development area.

133. The perception of industrial character increases towards the north of the TCA, through heightened sights, smells, and sounds of industrial activity. This contrasts with the south of the peninsula, which is more tranquil as a result of its proximity to the exposed sea, where woodland along the existing berms acts as a visual buffer, reducing the perception of industrial activity. The peninsula is popular recreationally with walkers and cyclists and is an important access point to Sandymount Strand and the sea for swimmers, wind, and kite surfers. The Poolbeg Peninsula has a strong association with the development of Dublin city through trade and providing a home for power and waste infrastructure. Over time, the peninsula has been widely documented in literature and art, and has a rich historical interest.

134. The TCA and onshore development area are formed from reclaimed land from the development of Dublin Port. Built form across the TCA forms an important skyline in the east of Dublin. In particular, the decommissioned chimneys of the ESB Poolbeg Generating Station are a prominent landmark within Dublin and the surrounding area. Other tall structures contributing to the skyline include the former Pigeon House Power Station, Dublin Waste to Energy facility, ESB Dublin Bay Power Plant, and the container port. As mentioned above, the onshore development area is generally low-lying and makes little contribution to the skyline of the TCA. Settlement is limited, with the nearest residential properties being Coastguard Cottages on Pigeon House Road, located approximately 1 km to the west. Industrial developments are laid out in a rectangular geometric pattern, mainly oriented east to west.

135. The scenery varies along the peninsula, predominantly being of low value within industrial areas. However, there are also areas of visual amenity, including coastal footpaths, beaches, and the Great South Wall. From these locations, panoramic views can be experienced extending between the headland at Howth (Plate 24-4) in the north, and around Dublin Bay and across Sandymount Strand towards Dún Laoghaire in the south (Plate 24-5). Views beyond the TCA and onshore development area are limited in the north to between buildings towards Clontarf and North Bull Island. The Great South Wall in the east is the only location on the peninsula where views to the north and south can be obtained.

136. It is acknowledged that there are areas of higher value with regards to the presence of ecological, cultural, and recreational features within the TCA. However, overall, value is assessed as low for the TCA and onshore development area due to their predominantly industrial use. Townscape susceptibility to the change associated with the OTI is considered to be low, due to the existing industrial character and relatively limited amenity value across this part of the TCA.

137. Overall, taking into account the low value and low susceptibility, the sensitivity of the Poolbeg Peninsula TCA to changes associated with the OTI is considered to be low.

Magnitude of change and significance of effect during construction phase

138. The magnitude of change to the Poolbeg Peninsula TCA as a result of the construction of the OTI is considered to be medium. During this phase, construction activity associated with the landfall, onshore export cables, onshore substation, construction compounds, and ESBN network cables will be located within this TCA and will result in direct changes to the fabric and patterns of the TCA. Overall, the construction works will take three years. Construction of the onshore substation will take place over a three-year period, with the landfall works (including offshore export cable installation through the landfall area) and onshore export cable installation taking place over a two-year period within the overall three-year programme.

139. The construction activity within the Poolbeg Peninsula TCA will include the operation of tall cranes, concentrations of plant and machinery, materials stockpiles, and the presence of site accommodation. At the landfall, activity will include construction of a temporary access ramp, diversion of the existing footpath, and site clearance and construction of TJBs. The landfall and ESBN network cables will require several sections of open cut and there will be construction compounds associated with general construction activity, HDD for the ESBN network cables, and the tunnel for the onshore export cable. Such activities will take place within a series of separate areas and connected linear sections located between other existing and visually separating uses, which in combination and sequence will have some influence on the character within the central part of the TCA. There will be a relatively limited influence on the landscape elements within the TCA as a result of this construction activity, due to its existing, predominantly industrial, nature. As described above, the influence of construction activity on landscape elements will generally be restricted to naturally regenerated scrub. Other landscape elements will remain unaltered. Although this landscape element has a limited influence on character within the wider TCA, removal of small areas of scrub will result in a loss of landscape features and in some instances the opening up of views towards other industrial uses.

140. The changes associated with construction will largely occur as a result of the presence of construction activity and the increasing presence of the onshore substation as it is constructed within a part of the TCA, which is currently relatively open and colonised by scrub vegetation. However, overall this will have a limited influence on the characteristics of the TCA, due to its existing industrial character where cranes, large vehicles, and activity are commonplace. Construction activity will therefore be somewhat in keeping with the existing land use and perceptual qualities, although it will represent a direct change to the townscape within the TCA.

141. The sensitivity of the Poolbeg Peninsula TCA is considered to be low, and the magnitude of the impact is assessed as medium. Therefore (as per the matrix in **Appendix 23.2**), it is assessed that there will be a **minor** adverse effect on townscape character within the Poolbeg Peninsula TCA, which is assessed as not significant. This change will be short-term.

Magnitude of change and significance of effect during O&M phase

142. The magnitude of change to the Poolbeg Peninsula TCA during the O&M phase of the OTI is considered to be low. During this phase, the main changes that will occur as a result of the OTI will be the operation of the onshore substation, and changes to landscape features including growth of native shrub and wildflower planting to mitigate loss of specimen trees, amenity screen planting, and naturally regenerated scrub during the construction phase.

143. The onshore substation will be in keeping with the existing industrial character of the surrounding TCA. It will have a limited influence on the perceptual qualities of the Poolbeg Peninsula TCA, including its distinctive skyline and cultural and heritage features. It will also have a limited influence on recreational amenity within the TCA, due to its position within an area of existing brownfield land, which is currently inaccessible. The growth of planting to mitigate losses of landscape features as a result of

construction, primarily located at the landfall and along Shellybanks Road and Pigeon House Road, will provide further landscape structure and perceptual value. It will provide some screening of surrounding existing industrial features, and will enhance the scenic qualities of the surrounding TCA.

144. The sensitivity of Poolbeg Peninsula TCA to changes associated with the OTI is considered to be low and the magnitude of the impact is assessed as low. Therefore (as per the matrix in **Appendix 23.2**), a **negligible** adverse effect is predicted, which is assessed as not significant. This change will be long-term and reversible.

Mudflats LCA

Baseline and receptor sensitivity

145. Mudflats LCA extends east from the coastline of the Sandymount TCA, and south from the Poolbeg Peninsula TCA. It covers an extensive intertidal area, to the south of the Great South Wall. As described in **Section 23.6**, the Great South Wall was built, along with the Bull Wall, to prevent sand blocking the entrance to Dublin Port, and has contributed to the creation of the mud and sand flats which form the LCA. Mudflats LCA forms a distinctive area of intertidal mud and sand flats, and is important recreationally and ecologically. At high tide, almost the entire LCA is covered by the sea, while at low tide, the mud flats extend to approximately 2 km from the coast at Sandymount. As indicated in **Figure 23.4**, the offshore export cable corridor extends south-east across this area from the landfall.

146. The LCA is located within the UNESCO Dublin Bay Biosphere Reserve, which indicates the global ecological importance of this landscape. It is also designated as a Ramsar site, indicating its international importance. These designations primarily relate to the habitats that support a range of bird species, including Mediterranean gull (*Larus melanocephalus*), terns (*Sternidae spp*.), light-bellied brent goose (*Branta bernicla hrota*), and godwits (*Limosa spp*.). Although these designations do not relate to landscape specifically, the ecological designations indicate the importance of the plant, bird and marine species found within this area, which contribute to landscape character.

147. Sandymount Strand is well-defined as an area of landscape character. It is a distinctive landscape, particularly in contrast to the neighbouring, more developed TCAs. Due to its intertidal position, it is by nature undeveloped and has well-defined boundaries. The intact and consistent nature of the landscape contributes to greater landscape quality.

148. The LCA has an open, relatively exposed character, and a sense of being constantly in flux due to the movement of the tides. This creates a distinctive landscape, particularly in contrast to the surrounding residential townscape across Sandymount, and industrial townscape within Poolbeg. The contrast of the flat, open intertidal area with the distinctive industrial infrastructure across the Poolbeg Peninsula to the north, including particularly the decommissioned chimneys of the ESB Poolbeg Generating Station, has created a strong sense of place and is important setting for the residential areas in particular. It is well-used as a recreational and amenity space, with many people using the mudflats at low tide as a place to walk. The LCA is also well-represented in literature and art, particularly in the writings of James Joyce, which contributes to the sense of place and landscape experience. The movement of the tide and the potential of the tide cutting off certain parts of the mud and sand flats creates a sense of risk, which also contributes to the landscape experience.

149. The scenery is an important feature of the LCA, with open views across the extensive mudflats towards the Irish Sea, seen at distances of up to 2 km at low tide. There are also distinctive views over the industrial infrastructure within the Poolbeg Peninsula TCA to the north, which contains views in this direction and creates a strong skyline to the north, contrasting with the flat and relatively uniform skyline to the south-east. Although the industrial infrastructure can be considered to be detractive in the

otherwise relatively scenic landscape, it also contributes to a strong sense of place, and views of the decommissioned chimneys of the ESB Poolbeg Generating Station, in particular, are valued locally.

150. The landscape has a broad scale and simple topography, and strong and robust character, which moderates its susceptibility to changes associated with the OTI and landfall works. Although it is located in close proximity to well-developed areas of townscape, the LCA itself has a sense of being relatively 'wild', to which the movement of the tides and the associated state of flux contribute. It also provides a sense of tranquillity, particularly in contrast to neighbouring TCAs. These factors increase the susceptibility to changes associated with the OTI and landfall works.

151. The value of the LCA is considered to be medium-high. This results from the combination of ecological, cultural and recreational features within the LCA, and its strong sense of place. Landscape susceptibility to changes associated with the OTI and landfall works is considered to be medium, primarily due to the combination of the large-scale and simple landscape with the sense of relative tranquillity and local wildness, but also taking account of the limited extent of the changes proposed in this area in terms of their geographic extent and duration as well as reversibility.

152. Overall, taking into account the medium-high value and medium susceptibility, the sensitivity of the Mudflats LCA to changes associated with the OTI and landfall works is considered to be medium-high.

Magnitude of change and significance of effect during construction phase

153. The magnitude of change to the Mudflats LCA as a result of the construction of the OTI and landfall works is considered to be medium-low. During this phase, construction activity associated with the landfall cable duct installation, open cut intertidal cable duct installation, and laying and burial of cables within the landfall area will be carried out within the LCA. This activity will result in direct changes to the fabric and patterns of the TCA within localised locations of the larger LCA.

154. According to information contained within **Chapter 4 Project Description**, this construction activity will include the construction and presence of a temporary cofferdam at the landfall for approximately six weeks in total; three open cut cable duct trenches of 300 m long x 3 m wide x 19 m deep extending seaward from the cofferdam, within an overall area of disturbance of 40 m width; free-laying and burial of cables by rollers and excavators within the 'transition zone' (as described in **Chapter 4 Project Description**) up to a distance of 2 km from the HWM; and up to nine tensioner platforms (positioned as shown in **Figure 23.2**) of 15 m x 10 m. There may also be an equipment storage platform of 70 m x 25 m within this area. Between the open cut cable duct trenches, which extend to approximately 300–350 m from the HWM, and up to approximately 2 km from the HWM, the cables will be free-laid. This will involve excavation of trenches of 100–150 m at a time, into which the cable will be lifted and lowered by excavators and support vehicles. The duration of activity associated with the tensioner platforms and free laying of the cables is expected to be five months.

155. Such activities will take place within the landfall area indicated in **Figure 23.2**. Installation of the cable ducts will take approximately 4–5 months, and will be carried out within Phase 1 of the landfall works. Cable free laying and burial in the 'transition zone' (as described in **Chapter 4 Project Description**) and cable pulling through landfall ducts into the TJBs will take place during Phase 2 of the landfall works, and will take approximately 4–5 months. As such, not all construction activity and equipment will be present at the same time. The overall duration of construction within the LCA is anticipated to be 10–12 months, split into two phases of six months over a period of two years, to avoid seasonal ecology restrictions.

156. A cable laying vessel will be moored out in the open sea in close proximity to the eastern edge of the LCA. Views of this, from within the LCA, will add to the perception of construction activity and reduce the sense of relatively uninterrupted views out of the bay as part of the surrounding context.

157. Overall, in combination and sequence, these activities will have some influence on the character throughout the LCA. Due to the open and expansive nature of the LCA, construction activity within any part of the LCA will be seen throughout the LCA, and will have an associated influence on its character. There will be a limited influence on the landscape elements of the LCA as a result of this construction activity, although there may be some disturbance to coastal grasses near the landfall.

158. The changes associated with construction will largely occur as a result of the presence of construction activity within the currently open LCA, which will have an influence on the somewhat 'wild' and relatively tranquil nature of the LCA. It will appear to extend the industrial character of the nearby Poolbeg Peninsula into the currently undeveloped and contrasting Mudflats LCA. Construction activity will contrast with the existing perceptual qualities of the LCA, and will also represent a direct change to the landscape within the LCA.

159. The sensitivity of the Mudflats LCA is considered to be medium-high, and the magnitude of the impact is assessed as medium-low. Therefore (as per the matrix in **Appendix 23.2**), it is assessed that there will be a **moderate adverse** effect on landscape character within the Mudflats LCA, which is assessed as not significant. These changes will be short-term. As a moderate adverse effect, in accordance with the methodology, this could be determined as being either significant or not significant. In this instance, the contributing levels of sensitivity and magnitude of change are at the lower levels of where they could contribute to a significant effect. In addition, in this instance, the short-term and reversible nature of the effects also has a bearing.

23.10.3 Effects on visual amenity

Impact 3: Impacts on visual amenity as a consequence of views of construction activity and constructed infrastructure.

Viewpoint 1: Bull Road / Bull Wall

Baseline and receptor sensitivity

160. This viewpoint is located on the Bull Wall, which includes the southern extent of North Bull Island and connects it to the mainland at Clontarf. The viewpoint is situated close to the eastern extent of the wall in an area with several benches and a sculpture. The viewpoint is accessible from Clontarf via a wooden bridge or from Dollymount Strand. The viewpoint is representative of the views obtained by recreational receptors visiting North Bull Island and walking along the Bull Wall as well as people swimming to the south-west of the wall.

161. Existing views are open and panoramic in nature. To the north are views across Royal Dublin Golf Course towards Dollymount Strand and Howth Head. To the east, views extend across Dublin Bay towards the Irish Sea. To the west are views towards Clontarf Promenade and the industrial development at Dublin Port. Views to the south-east are longer distance and feature the headland at Dún Laoghaire, seen beyond the Great South Wall.

162. To the south are close views of the Poolbeg Peninsula. The Great South Wall can be seen extending into the sea to the east. Two lighthouses mark the end of the Bull Wall and the Great South Wall, respectively, and indicate the entrance to Dublin Port. The nature of the view to the south is relatively industrial, with the skyline formed by the Great South Wall gradually becoming more industrialised as it extends to the west. Features which contribute to the skyline include the former Pigeon House Power Station, ESB Poolbeg Generating Station, Dublin Waste to Energy facility, Ringsend WWTP, and ESB Dublin Bay Power Plant. To the south-west, views include the complex infrastructure of power plants,

Dublin Docklands, regular dockings of large ships, fuel storage tanks, tall cranes, and container storage on adjacent quays.

163. The Bull Wall is popular with recreational users, and views of the surrounding landscape form a key component of the overall experience. However, the existing view is heavily influenced by existing industrial infrastructure, which will reduce the susceptibility to changes of a similar type. The susceptibility is considered to be medium.

164. The wall is located within the North Bull Island SAAO, a national designation which protects North Bull Island for its scenic, recreational and amenity value. There are also numerous designations across North Bull Island for its nature conservation value. However, the existing view features a number of detractive elements, including primarily in the view to the south, of industrial development within Dublin Port and the Poolbeg Peninsula. The value of the view is considered to be medium-high.

165. Taking into account the judgements of susceptibility and value, the sensitivity to change is considered to be medium-high.

Magnitude of change and significance of effect during construction phase

166. During construction, the visibility of construction works associated with the OTI and landfall works will primarily be restricted to the area within the onshore substation site, seen to the south-west. This may include a temporary construction compound associated with the tunnel for the onshore export cables, the reclamation of land, new revetments, and piling to create a substation platform, followed by the construction of the Gas Insulated Switchgear (GIS), ESB, and Statcom buildings, and installation of electrical equipment. There will be an increase in activity around the onshore substation site associated with heavy plant, cranes, scaffolding, and material storage. This will be viewed within the context of a busy port, and seen in a part of the view which is subject to existing industrial activity, including the movement of cranes and plant. Construction lighting will be evident in winter months when working days will extend into hours of darkness, again in the context of a lit environment. Visibility of construction activity within other parts of the onshore development area will be limited.

167. There may be some limited views towards construction activity within the landfall area, comprising infrastructure associated with the offshore export cable, although this is likely to be limited, and where visible will be seen in the context of industrial activity within the Poolbeg Peninsula or as floating plant / vessels beyond the Great South Wall.

168. Overall, the magnitude of change is considered to be low.

169. The sensitivity of receptors at Viewpoint 1: Bull Wall, as well as recreational receptors within the wider area along the Bull Wall and swimming in the area, to changes associated with the OTI and landfall works is considered to be medium-high, and the magnitude of the impact is assessed as low. Therefore (as per the matrix in **Appendix 23.2**), a **moderate-minor** adverse effect is predicted, which is assessed as not significant. This effect will be short-term.

Magnitude of change and significance of effect during O&M phase

170. During the O&M phase, views will be possible of the GIS, ESB and Statcom buildings within the onshore substation site. These features will be seen in front of and alongside the Dublin Waste to Energy facility from this viewpoint, and adjacent to the former Pigeon House Power Station. The tallest element will be the GIS building, which will appear level with the height of the Dublin Waste to Energy facility. The onshore substation buildings will also be clad in a similar grey material to the surrounding buildings, including the Dublin Waste to Energy facility. The revetments will also be visible, and over time, will weather and be similar in appearance to those nearby.

171. The OTI will represent a small change to the view. The infrastructure will occupy a small proportion of the overall view from this viewpoint, and will be in keeping with surrounding industrial development on the Poolbeg Peninsula. This will involve a part of the view where lower industrial development is already present. The buildings will be similar in scale to, or smaller than, much of the development in the surrounding context, and the design of the buildings, including the colour and materials, will reduce their visual prominence. There will be a limited change to the skyline to the south-west as a result of the OTI, although there will be a loss of view to some of the hill skyline beyond and a loss of vegetation within the site, although this is unlikely to be a notable change. Views in all other directions will remain unaltered, as will the view to the iconic form of the decommissioned chimneys of the ESB Poolbeg Generating station and the historically important former Pigeon House Power Station. Overall, the magnitude of change is considered to be low. These effects will be experienced both from the viewpoint itself, and by recreational receptors in the surrounding area, either walking along the Bull Wall, or swimming close to the wall.

172. The sensitivity of receptors at Viewpoint 1, and recreational receptors visiting the Bull Wall generally, is considered to be medium-high, and the magnitude of the of impact is assessed as low. Therefore (as per the matrix in **Appendix 23.2**), a **moderate-minor** adverse effect is predicted, which is not significant. These changes will be long-term and reversible.

Viewpoint 2: Great South Wall

Baseline and receptor sensitivity

173. This viewpoint is located on the Great South Wall, close to the point at which the wall begins to extend into the sea, beyond the land of the peninsula. There is a small car park nearby. There is access to the water for swimming and water polo from further along the wall, and Poolbeg Lighthouse is situated at its eastern extent. The viewpoint is representative of views experienced by recreational receptors walking along the Great South Wall as well as people in the water.

174. Open, panoramic views can be obtained from this location. To the north-west is the complex skyline of Dublin docklands, including cranes, Ferry Terminal 1, and container and fuel storage areas. To the north, Bull Island is visible beyond the Bull Wall. Residential areas within Clontarf are visible between the docklands and Bull Wall. Howth Island is visible to the north-east. To the east, views extend along the Great South Wall, and the two lighthouses on the Great South Wall and Bull Wall are visible, marking the entrance to Dublin Port. Longer-distance views are available beyond to Dublin Bay and the Irish Sea. Southwards, views are somewhat contained by parts of the Great South Wall, although there are longer-distance views towards the coastline of Sandymount and the headland at Dún Laoghaire. To the west, industrial buildings, tall chimneys, and infrastructure associated with the ESB Poolbeg Generating Station, former Pigeon House Power Station, Ecocem Dublin Plant and cranes associated with the docklands form a complex composition of tall industrial elements, which restrict longer-distance views, although tall buildings in the city centre are visible beyond. Close views of commercial shipping, ferries, and cruise liners entering and leaving Dublin Port can also be seen.

175. This location is popular with recreational users, and views of the surrounding landscape form a key part of the overall experience. However, there are several detractive elements in the view, particularly to the west, including industrial development on the Poolbeg Peninsula and at Dublin docklands. The susceptibility of receptors to changes associated with the OTI and landfall works is therefore considered to be medium- low.

176. The viewpoint is not located within a designated landscape, although there are views over the North Bull Island SAAO, and Sandymount Strand, which is designated for its nature conservation value. The view to the east in particular is likely to be locally valued, while the view to the west features a number of detractive elements. The value of the views towards the OTI are considered to be medium-low.

177. Overall, both value and susceptibility are considered to be medium-low, resulting in a medium-low sensitivity to change.

Magnitude of change and significance of effect during construction phase

178. During the construction phase, the main activity associated with the OTI and landfall works will be seen within the onshore substation site to the west. Construction activity associated with the onshore substation will be visible adjacent to the former Pigeon House Power Station. This may include views of a temporary construction compound associated with the tunnel for the onshore export cables, the reclamation of land, new revetments, and piling to create a substation platform, followed by the construction of the GIS, ESB, and Statcom buildings, and installation of electrical equipment. There would be an increase in activity around the onshore substation site associated with heavy plant, cranes, scaffolding, and material storage. This will be seen in the context of cranes at Dublin Docklands, albeit in closer proximity than the existing activity of this type. Construction lighting will be evident in winter months when working days will extend into hours of darkness in the context of a lit environment. Similar views will be experienced by receptors along the extent of the Great South Wall, albeit at greater distance from the onshore substation site and screened by parts of the Great South Wall to the south. Construction activity visible within the landfall area may include views of a mid-support pontoon and the upper parts of shallow water trenchers supported by several workboats. Such activities will occur over a duration of five months.

179. Overall, the magnitude of change is considered to be medium-low.

180. The sensitivity of receptors at Viewpoint 2: Great South Wall, as well as recreational receptors within the wider area along the Great South Wall, to changes associated with the OTI and landfall works is considered to be medium-low, and the magnitude of the impact is assessed as low. Therefore (as per the matrix in **Appendix 23.2**), a **minor** adverse effect is predicted, which is assessed as not significant**.** This effect will be short-term.

Magnitude of change and significance of effect during O&M phase

181. During the O&M phase, the GIS, ESB, and Statcom buildings will be seen adjacent to the former Pigeon House Power Station in the view to the west. They will be seen in front of infrastructure associated with Ecocem Dublin Plant and cranes and infrastructure at Dublin docklands. The GIS building will be the tallest element of the OTI, and will be seen at the same level above the horizon as the adjacent Pigeon House Power Station. There will be a slight alteration of the skyline in this sector of the view.

182. Although the OTI buildings will be seen in a section of the view which is already occupied by industrial development, they will bring this development into closer proximity to the viewpoint in this sector, extending further east than the Ecocem Dublin Plant buildings. The buildings will be clad in a similar material and colour to some of the surrounding buildings, although in views from this viewpoint, the grey colour of the buildings will contrast to a degree with the nearby red brick of the former Pigeon House Power Station. The onshore substation does not affect any important features of the skyline.

183. The OTI will represent a small change to the view. The infrastructure will occupy a small proportion of the overall view available from this viewpoint. Although it will appear in a contrasting colour to the former Pigeon House Power Station, it will be in keeping generally with the surrounding industrial context and scale of development. The simple architectural forms reduce the complexity within this part of the view and are akin to the scale and simplicity of the Dublin Waste to Energy facility. As a result, there will be a limited change to the skyline to the west, which will appear slightly more built-up as a result of the OTI. Views in all other directions will remain unaltered. Overall, the magnitude of

change is considered to be medium-low. Similar, albeit more distant views, will be experienced by recreational receptors along the full extent of the Great South Wall, as well as people swimming in the sea nearby.

184. The sensitivity of receptors at Viewpoint 2: Great South Wall, as well as recreational receptors along the Great South Wall generally, is considered to be medium-low, and the magnitude of the of impact is assessed as medium-low. Therefore (as per the matrix in **Appendix 23.2**), a **minor** adverse effect is predicted, which is not significant**.** This change will be long-term and reversible.

Viewpoint 3: Pigeon House Road

Baseline and receptor sensitivity

185. This viewpoint is located on Pigeon House Road, close to the entrance to Ecocem Dublin Plant, and north of Dublin Waste to Energy facility. The viewpoint is representative of receptors travelling along Pigeon House Road, generally considered to be employees working within the surrounding industrial context. Recreational receptors and visitors travelling to Irishtown Nature Park and the Great South Wall may also experience this view.

186. Existing views from this location are contained by the surrounding industrial buildings, including Ecocem Dublin Plant to the north, Dublin Waste to Energy facility to the south, and Ringsend WWTP to the south-east. Slightly longer-distance views are available to the east towards the former Pigeon House Power Station, and ESB Poolbeg Power Station. Views towards these features are interrupted by an elevated pipe associated with Ringsend WWTP, which crosses above Pigeon House Road in close proximity to the east of the viewpoint. Views to the west are contained by surrounding infrastructure and vegetation along Pigeon House Road. The skyline in this direction features cranes associated with contained storage.

187. Road users are considered to have lower susceptibility to change associated with the OTI, as their focus is only partially on their surroundings. Existing views of the surrounding industrial context will also moderate the susceptibility to changes of a similar type. Overall, susceptibility is considered to be low.

188. The view is not located within any landscape designations, which otherwise would indicate a higher value. The view features a baseline with extensive industrial development, and few features of value, although there are views towards the historically important and locally valued former Pigeon House Power Station and decommissioned chimneys of the ESB Poolbeg Generating Station to the east. Overall, the value of the view is considered to be low.

189. Taking into account the judgements of susceptibility and value, the sensitivity to change is considered to be low.

Magnitude of change and significance of effect during construction phase

190. During the construction phase, a number of elements associated with the construction of the OTI will be visible from the viewpoint and experienced by receptors in the surrounding area. Close views of construction activity within the onshore substation site will be available to the north-east. This will include a construction compound associated with the tunnel for the onshore export cable, construction of the GIS, ESB, and Statcom buildings, and installation of electrical equipment and security fencing. There will be an increase in activity around the onshore substation site associated with heavy plant, cranes, scaffolding, and material storage, which will represent a change to the skyline across this area. One temporary construction compound at the northern end of Shellybanks Road and to the south of

Pigeon House Road, associated with the tunnel for the onshore export cable, will be seen to the west. Construction lighting will be evident in winter months when working days will extend into hours of darkness. Bridge access over the cooling water discharge channel to the onshore substation site, will not be apparent in this view. Overall, the magnitude of change is considered to be medium.

191. The sensitivity of receptors at Viewpoint 3: Pigeon House Road to changes associated with the OTI is considered to be low, and the magnitude of the impact is assessed as medium. Therefore (as per the matrix in **Appendix 23.2**), a **minor** adverse effect is predicted, which is assessed as not significant. These changes will be short-term.

Magnitude of change and significance of effect during O&M phase

192. During the O&M phase, the GIS, ESB, and Statcom buildings, and the security fence will be visible in the view to the north-east, seen beyond the infrastructure associated with the Ringsend WWTP and the access road for the Ecocem Dublin Plant. From this direction, the outdoor elements (harmonic filters) of the onshore substation infrastructure will also be visible, although these will be back-clothed by the proposed buildings, which reduces their impact. The OTI will introduce a change to the skyline to the north-east from this viewpoint, within the context of existing, industrial development, and plant. The view in this direction currently represents a slightly more open outlook, albeit still contained at relatively close proximity by lower-level infrastructure, due to the relatively level nature of the topography on the substation site currently. Views to the existing regenerating spoil mounds within the onshore substation site are visible above the existing pipes and bridge structures. With the addition of the OTI, the view in this direction will be contained in closer proximity, and the buildings will be seen at greater height above the horizon than the existing elements in the view.

193. The onshore substation buildings will appear similar in scale to or smaller than surrounding development throughout the view. The colour and materials of the cladding will also be in keeping with surrounding development, including the adjacent infrastructure within the Ecocem Dublin Plant.

194. The OTI will represent a medium magnitude of change to the view. The infrastructure will be seen in close proximity, although it will occupy a relatively limited proportion of the overall view available from this viewpoint. It will be in keeping generally with the surrounding industrial context. There will be a change to the skyline to the north-east, which will appear more built-up as a result of the OTI, and which will limit the slightly more open views that are currently available in this direction. Views in all other directions will remain unaltered.

195. The sensitivity of receptors at Viewpoint 3: Pigeon House Road to changes associated with the OTI is considered to be low, and the magnitude of the impact is assessed as medium. Therefore (as per the matrix in **Appendix 23.2**), a **minor** adverse effect is predicted, which is not significant. These changes will be long-term and reversible.

Viewpoint 4: Sandymount Promenade

Baseline and receptor sensitivity

196. This viewpoint is located on Sandymount Promenade, near its northern extent. There is access to both Strand Road and Sandymount Strand at this location. The promenade is popular with recreational users, and views of the surrounding landscape form a key part of the overall experience. It is also representative of views experienced by residential receptors on Strand Road on the edge of Sandymount.

197. This viewpoint offers expansive views over the sands of Sandymount Strand to the east, framed by Poolbeg Peninsula and Howth Island to the north-east and the headland and harbour at Dún Laoghaire to the south-east. Views to the east are the focus from this viewpoint, with views to the west contained at close proximity by residential development along Strand Road within Sandymount. The sculpture 'Awaiting the Mariner' can be seen marking the end of the promenade to the north of the viewpoint.

198. The skyline of the Poolbeg Peninsula, seen to the north-east, forms a distinctive feature of the view, and includes the ESB Dublin Bay Power Plant, Dublin Waste to Energy facility, Ringsend WWTP, and ESB Poolbeg Generating Station, including views of stacked shipping containers, tall cranes and the prominent and locally iconic chimneys. The vegetated mounds that run to the south of the industrial area and the taller mound within the Irishtown Nature Park are visible along the southern extent of the peninsula, as well as vegetation along the footpath between Sandymount and the Great South Wall, and these elements partially screen views of the industrial development beyond.

199. This location is popular with recreational users walking and cycling on the promenade, and views of the surrounding landscape form a key part of the overall experience. Residential receptors are also likely to have a greater appreciation of their surroundings. However, there are existing views of industrial infrastructure which will moderate the susceptibility of receptors experiencing this view, and the orientation of buildings along this stretch of Strand Road is generally towards Sandymount Strand, rather than the Poolbeg Peninsula, meaning that views experienced by residential receptors within properties will be oblique, if available. Susceptibility to change is therefore considered to be medium-high.

200. The view is not formally recognised and it is not located within a designated landscape, which otherwise would indicate a higher value. However, it affords open views over the Irish Sea, and is likely to be locally valued. There are a number of detractive elements in the view, including primarily in the view to the north-east, over industrial development on the Poolbeg Peninsula. The value is considered to be medium.

201. Taking into account the judgements of susceptibility and value, the sensitivity to change is considered to be medium-high.

Magnitude of change and significance of effect during construction phase

202. During construction, activity within the landfall area, at landfall, and within the onshore substation site will be visible from this location.

203. Across Sandymount Strand to the north-east, works associated with the landfall cable duct installation, open cut intertidal cable duct installation, and laying and burial of cables within the landfall area (during low tide) will be evident. This will include construction of a temporary cofferdam adjacent to the landfall, installation and presence of tensioner platforms, and excavation and installation activity and equipment associated with the laying of cables. The majority of these works will be seen against the skyline formed by the Poolbeg Peninsula, although they will also extend further east into an area which is currently undeveloped.

204. Other activity will include construction on the Poolbeg Peninsula associated with the landfall, including excavation of existing berms, installation of the TJBs, construction of a temporary access ramp in locations indicated on the visualisation and the presence of a construction compound with material storage areas viewed behind the main areas of excavation. Construction associated within the onshore substation site may also be visible beyond the works at landfall. There will be an increase in activity within the onshore development area associated with heavy plant and cranes. These changes will be phased, such that not all construction activity described here will be seen at the same time. Overall, construction is anticipated to last 36 months.

205. During construction, the construction activity at landfall and throughout the landfall area will be present within a relatively large horizontal extent of the views from this viewpoint and surrounding parts of Sandymount, but will occur across a relatively narrow vertical extent, with the temporary structures and equipment located within the intertidal area (mudflats) largely back-clothed by the industrially developed land and the Great South Wall beyond. The construction work to install the cables through the transitional part of the landfall area further east will also involve the use of a mid-support pontoon, shallow water trencher and several workboats. The duration of this work will be up to five months.

206. The magnitude of change associated with the OTI and landfall works is considered to be medium on account of the open views combined with relatively close proximity. Construction works will lead to a general impression of activity within a sector of the view which is otherwise undeveloped and open. This would result in a medium-low magnitude of change.

207. The sensitivity of receptors at Viewpoint 4: Sandymount Promenade, as well as recreational and residential receptors within the surrounding area, to changes associated with the OTI and landfall works is considered to be medium-high, and the magnitude of the impact is assessed as medium-low. Therefore (as per the matrix in **Appendix 23.2**), a **moderate** adverse effect is predicted, which is not significant. As a moderate adverse effect, in accordance with the methodology, this could be determined as being either significant or not significant. In this instance, the contributing levels of sensitivity and magnitude of change are at the lower levels of where they could contribute to a significant effect. In addition, the short-term and reversible nature of the effects has a bearing. These changes will be short-term.

Magnitude of change and significance of effect during O&M phase

208. During the O&M phase, the GIS building will be partially visible in the view to the north-east. This building will be positioned beyond existing industrial development on the Poolbeg Peninsula. The Statcom building will be screened by the Dublin Waste to Energy facility, while infrastructure associated with Ringsend WWTP will screen the lower parts of the GIS building and the ESB building. The GIS building will be the most prominent part of the OTI visible from this location. It will appear adjacent to the Dublin Waste to Energy facility and will appear at a similar height as the lower level of this building.

209. The grey metal mesh used for the upper parts of the GIS building is the only material visible from this viewpoint, with the brick proposed across lower parts being screened from view by intervening development. This colour will contrast with the lighter grey of surrounding industrial development. The colour and materials of the cladding used for the buildings will be in keeping with the surrounding development, including the Dublin Waste to Energy facility and infrastructure at Ringsend WWTP. The OTI will represent a change to the skyline across a small sector of the view, being seen at a greater height above the horizon than the existing elements in this sector, although the GIS building will be smaller than or similar in scale to existing features across the wider view. Similar views will be experienced by recreational receptors throughout a wider area of Sandymount Strand to the east, and further south along Sandymount Promenade, and there may be similar although more limited views available to residential receptors on Strand Road nearby, as indicated by the ZTV in **Figure 23.5**.

210. The OTI will represent a small change to the view. The infrastructure will occupy a small proportion of the overall view available from this viewpoint, and will be in keeping with surrounding industrial development on the Poolbeg Peninsula. The buildings will be similar in scale to, or smaller than, much of the development in the surrounding context, and the design of the buildings, including the colour and materials, will reduce their visual prominence. There will be a limited change to the skyline to the north-east as a result of the OTI. Views in all other directions, including to the east over Dublin Bay and the Irish Sea, will remain unaltered. Overall, the magnitude of change is considered to be low.

211. Over time, the native woodland planting that is proposed around and between the TJB and construction stage slipway (as indicated on the viewpoint visualisation) will grow to extend the woodland of the Irishtown Nature Park in this view. Whilst this is unlikely to screen views of the onshore substation, it will reduce the visibility of other, closer range industrial development.

212. The sensitivity of receptors at Viewpoint 4: Sandymount Promenade, as well as recreational and residential receptors within the surrounding area, to changes associated with the OTI is considered to be medium-high and the magnitude of the impact is assessed as low. Therefore (as per the matrix in **Appendix 23.2**), a **moderate-minor** adverse effect is predicted, which is not significant. These changes will be long-term and reversible.

Viewpoint 5: Sandymount Strand

Baseline and receptor sensitivity

213. This viewpoint is located on Beach Road, along the stretch between Seafort Avenue and Marine Drive. It is representative of recreational receptors walking on Sandymount Strand, as well as residential receptors along this stretch of Beach Road.

214. The focus of views from this location is to the east and south-east, over the broad expanse of Sandymount Strand towards the Irish Sea; however, the tall chimneys, and large, diverse forms of the industrial development on the Poolbeg Peninsula skyline also draw views towards the north-east. The view out to sea is contained to the north-east by the Poolbeg Peninsula, and to the south-east by the headland and harbour at Dún Laoghaire. The view to the west is contained at close proximity by residential development within Sandymount.

215. Industrial development on the Poolbeg Peninsula contributes to a distinctive skyline in the view to the north-east. This includes infrastructure associated with ESB Dublin Bay Power Plant, Ecocem Dublin Plant, Dublin Waste to Energy facility, and ESB Poolbeg Generating Station, including its distinctive decommissioned chimneys. Irishtown Nature Park is positioned along the southern extent of the peninsula, along with land associated with a footpath, which extends between Sandymount and the Great South Wall, and its vegetated mounds partially screen views towards further industrial development beyond.

216. This location is popular with recreational users walking on the beach and on Beach Road, and views of the surrounding landscape form a key part of the overall experience. Residential receptors are also likely to have a greater appreciation of their surroundings. There are existing views of industrial infrastructure, which will moderate the susceptibility to change. Susceptibility to change is therefore considered to be medium-high.

217. The view is not formally recognised and it is not located within a designated landscape, which otherwise would indicate a higher value. However, it affords open views over Dublin Bay, and is likely to be locally valued. There are a number of detractive elements in the view, including primarily in the view to the north-east at relatively close proximity, over industrial development on the Poolbeg Peninsula. The value of the view is considered to be medium.

218. Taking into account the judgements of susceptibility and value, the sensitivity to change is considered to be medium-high.

Magnitude of change and significance of effect during construction phase

219. During construction, activity within the landfall area, at landfall, and within the onshore substation site will be experienced by receptors at this viewpoint, as well as recreational receptors throughout

Sandymount Strand. Similar views may be experienced by a limited number of residential receptors along the neighbouring Strand Road.

220. Across Sandymount Strand to the east, works associated with the landfall cable duct installation, open cut intertidal cable duct installation, and laying and burial of cables within the landfall area (during low tide) will be evident. This will include construction of a temporary cofferdam adjacent to the landfall, the installation and presence of tensioner platforms, and excavation and installation activity and equipment associated with the laying of cables. Part of these works will be seen against the skyline formed by the Poolbeg Peninsula, although they will also extend further east into a sector of the view which currently features an undeveloped skyline.

221. Other activity will include construction on the Poolbeg Peninsula associated with the landfall, as indicated on the visualisation, including excavation of existing berms, installation of the TJBs, construction of a temporary access ramp and the presence of a construction compound with material storage areas viewed behind the main areas of excavation. Construction associated within the onshore substation site may also be visible beyond the works at landfall, although this is likely to be limited to the presence of cranes due to screening of lower-level elements by intervening development. There will be an increase in activity within the onshore development area associated with heavy plant and cranes. These changes will be phased, such that not all construction activity described here will be seen at the same time. Overall, construction is anticipated to last 36 months.

222. During construction, the activity at landfall and throughout the landfall area will occupy a relatively large horizontal extent of the view from this viewpoint and surrounding parts of Sandymount. However, the impact of this is moderated by the relatively narrow vertical extent of the works with the temporary structures and equipment located within the intertidal area (mudflats) partially back-clothed by the industrially developed land and Great South Wall beyond. The construction work to install the cables through the transitional part of the landfall area further east will also involve the use of a mid-support pontoon, shallow water trencher, and several workboats. The duration of this work will be up to five months. Overall, the magnitude of change associated with the OTI and landfall works is considered to be medium (taking a precautionary approach) on account of the extent of the view occupied by the construction works, combined with the relatively close proximity. Similar changes to views will be experienced by recreational and residential receptors within the surrounding area, including recreational receptors on Sandymount Strand, and residential receptors along Strand Road.

223. The sensitivity of receptors at Viewpoint 5: Sandymount Strand, as well as recreational and residential receptors in the surrounding area, is considered to be medium-high, and the magnitude of the impact is assessed as medium. Therefore (as per the matrix in **Appendix 23.2**), a **moderate** adverse effect is predicted, which, taking a precautionary approach, is significant. These changes will be short-term and reversible.

Magnitude of change and significance of effect during O&M phase

224. During the O&M phase, the Statcom building will be partially visible in the view to the north-east. All other infrastructure within the OTI will be screened from view. In particular, the Dublin Waste to Energy facility will screen views towards the GIS and ESB buildings, and parts of the Statcom building. The lower parts of the Statcom building will be screened from view by existing fencing and vegetation on the Poolbeg Peninsula. The colour of the cladding used for the upper, visible parts of the Statcom building will be in keeping with the light grey colour of surrounding development, including the Dublin Waste to Energy facility. It will represent a very small alteration to the skyline across this area, and will appear smaller in scale than the surrounding industrial development.

225. The OTI will represent a negligible change to the view. The infrastructure will occupy a very small proportion of the overall view available from this viewpoint, and will be in keeping with surrounding industrial development on the Poolbeg Peninsula. Part of one of the buildings will be visible, and it will

appear smaller in scale than the development in the surrounding context. The design of the building, including the colour and materials, will reduce its visual prominence. There will be a limited change to the skyline to the north-east as a result of the OTI. Views in all other directions, including to the east over Dublin Bay and the Irish Sea, will remain unaltered. Overall, the magnitude of change is considered to be negligible. Similar views will be experienced by recreational receptors across a further small area of Sandymount Strand, and there may be similar, although more limited, views available to residential receptors on Strand Road nearby, as indicated by the ZTV in **Figure 23.5**.

226. Over time, the native woodland planting that is proposed around and between the TJB and construction stage slipway (as indicated on the viewpoint visualisation) will grow to slightly extend the woodland of Irishtown Nature Park in this view. Whilst this will not screen views of the onshore substation, it may slightly reduce the visibility of other industrial development.

227. The sensitivity of receptors at Viewpoint 5: Sandymount Strand, as well as recreational and residential receptors within the surrounding area, to changes associated with the OTI is considered to be medium-high, and the magnitude of the impact is assessed as negligible. Therefore (as per the matrix in **Appendix 23.2**), a **minor adverse** effect is predicted, which is not significant. These changes will be long-term and reversible.

Viewpoint 6: Clontarf Promenade

Baseline and receptor sensitivity

228. This viewpoint is located on Clontarf Promenade, close to a shelter and seating area, to the west of the slipway. It is representative of recreational users walking and cycling along the promenade. Similar views will be experienced by residential receptors on Clontarf Road, although these views will be slightly more distant and filtered.

229. The focus of the view from this location is to the south, over the Tolka Estuary towards Dublin docklands and the Poolbeg Peninsula. There are also longer-distance views to the south-east, over Dublin Bay towards the Irish Sea. The view out to sea is framed by North Bull Island to the east and the headland at Dún Laoghaire, and the Great South Wall to the south-east. Views to the east and west feature Clontarf Promenade in the foreground, and views to the north are contained by residential development on Clontarf Road.

230. The skyline to the south is distinctive and includes fuel tanks and other industrial infrastructure on the foreground peninsula at Dublin docklands. There are also frequent views of ferries docking at Terminal 1. The ferry terminal itself is filtered from view by vegetation along the northern edge of the docks, immediately south of the viewpoint. This vegetation also filters views towards the Poolbeg Peninsula, as does infrastructure within the docklands, although there is visibility of the upper parts of the ESB Poolbeg Generating Station, including the distinctive and iconic decommissioned chimneys, Ecocem Dublin Plant, Dublin Waste to Energy facility, and ESB Dublin Bay Power Plant.

231. This location is popular with recreational users walking on the promenade, and views of the surrounding landscape form a key part of the overall experience. Residential receptors are also likely to have a greater appreciation of their surroundings. However, the viewpoint features prominent views of existing industrial infrastructure, which will moderate the susceptibility to change associated with the OTI and landfall works. Susceptibility to change is therefore considered to be medium-high.

232. The view is not formally recognised, and it is not located within a designated landscape, which otherwise would indicate a higher value. However, it affords open views over the Irish Sea, and is likely to be locally valued. There are a number of detractive elements in the view, including primarily in the view to the north-east at relatively close proximity, over industrial development on the Poolbeg Peninsula. The value is considered to be medium.

233. Overall, the sensitivity to change is considered to be medium-high.

Magnitude of change and significance of effect during construction phase

234. During construction, works construction activity within the onshore substation site will be observed to the south. This will include the erection of the GIS, ESB, and Statcom buildings, which will be visible above the trees within the northern part of Dublin Port to the south. There will be an increase in activity around the site associated with heavy plant, cranes, scaffolding, and the emerging onshore substation buildings, viewed within the context of a busy port and seen alongside existing cranes and industrial infrastructure in Dublin Port and on the Poolbeg Peninsula. Construction lighting will be evident in winter months when working days will extend into hours of darkness, within the context of a lit environment. These changes will be experienced by receptors at Viewpoint 6 and throughout the surrounding area, including recreational and residential receptors along a relatively expansive stretch of Clontarf Promenade, as indicated by the ZTV in **Figure 23.5**.

235. There may also be some views of construction activity across eastern parts of the landfall area, although these are likely to be limited, with the temporary structures and equipment located within the intertidal area (mudflats) largely back-clothed by the industrially developed land of Poolbeg Peninsula and Great South Wall beyond. The construction work to install the cables through the transitional part of the landfall area further east will also involve the use of a mid-support pontoon, shallow water trencher, and several workboats. The duration of this work will be up to five months.

236. Overall, the magnitude of change is considered to be low.

237. The sensitivity of receptors at Viewpoint 6: Clontarf Promenade, as well as recreational and residential receptors within the surrounding area, to changes associated with the OTI and landfall works is considered to be medium-high and the magnitude of the impact is assessed as low. Therefore (as per the matrix in **Appendix 23.2**), a **moderate-minor** adverse effect is predicted, which is assessed as not significant. These changes will be short-term and reversible.

Magnitude of change and significance of effect during O&M phase

238. During the O&M phase, views will be available of upper parts of the GIS and Statcom buildings within the onshore substation site. The lower parts of these buildings, and the ESB building, will be screened from view by the vegetation along the northern edge of Dublin Port. This screening effect is likely to be more limited in winter, and there may be filtered views towards lower parts of the GIS and Statcom buildings and the ESB building, although it is likely that further screening will be provided by intervening infrastructure within Dublin Port beyond the vegetation.

239. These features will be seen in the context of surrounding industrial development, including Dublin Waste to Energy facility, Ecocem Dublin Plant, ESB Poolbeg Generating Station, and cranes and sheds associated with Dublin docklands. The tallest element will be the GIS building, which will appear lower than neighbouring development. The onshore substation buildings will also be clad in a similar grey material to the surrounding buildings. There will be no change to the skyline across this part of the view, and the buildings will be back-clothed by higher ground to the south of Dublin, which will continue to form the horizon. There will be no change to the views towards the ESB Poolbeg Generating Station.

240. The OTI will result in a small change to the view. The infrastructure will occupy a small proportion of the overall view available from this viewpoint and will be in keeping with surrounding industrial development on the Poolbeg Peninsula. The buildings will be similar in scale to or smaller than much of the development in the surrounding context, and the design of the buildings, including the colour and materials, will reduce their visual prominence. There will be no change to the skyline as a result

of the OTI, although the GIS building will slightly increase the influence of industrial development seen in front of the horizon formed by higher ground to the south of Dublin. Views in all other directions will remain unaltered. Overall, the magnitude of change is considered to be low. Similar views will be experienced by recreational receptors along a wider extent of Clontarf Promenade, as indicated by the ZTV in **Figure 23.5**. Similar, although more limited, views might also be experienced by residential receptors on Clontarf Road.

241. The sensitivity of receptors at Viewpoint 6: Clontarf Promenade, as well as recreational and residential receptors within the surrounding area, to changes associated with the OTI is considered to be medium-high, and the magnitude of the impact is assessed as low. Therefore (as per the matrix in **Appendix 23.2**), a **moderate-minor** adverse effect is predicted, which is assessed as not significant**.** These changes will be long-term and reversible.

Viewpoint 7: Strand Road

Baseline and receptor sensitivity

242. This viewpoint is located at Merrion Strand, near the junction between Strand Road and Merrion Road. The viewpoint is representative of views experienced by recreational receptors on the beach. A small number of residential receptors may experience similar views, although these are more contained in nature and generally focussed directly to the east.

243. The focus of the view from this location is to the east across Merrion Strand towards Dublin Bay. Howth Island forms a focal point in the view to the north-east, and the view out to sea is framed by the Poolbeg Peninsula and Howth Island to the north-east, and the headland and harbour at Dún Laoghaire to the south-east. The view to the west is contained by vegetation along the route of the railway line, which runs adjacent to the coastline to the immediate west of the viewpoint.

244. Poolbeg Peninsula forms a distinctive skyline to the north-east, beyond the expansive Sandymount Strand. This skyline is heavily influenced by industrial infrastructure, including the ESB Poolbeg Generating Station, the former Pigeon House Power Station, Dublin Waste to Energy facility, and Ecocem Dublin Plant. Vegetated mounds within Irishtown Nature Park, and along the footpath between Sandymount and the Great South Wall, form the southern boundary of this peninsula, and partially screen views towards features within the industrial area beyond. The Great South Wall extends further east, and the end of the wall is marked by Poolbeg lighthouse.

245. This location is popular with recreational users, and views of the surrounding landscape form a key part of the overall experience. Susceptibility to changes associated with the OTI and landfall works will be moderated by existing views of industrial infrastructure across Poolbeg Peninsula and the focus of the views out to sea from this location. The susceptibility is considered to be medium.

246. The view is not formally recognised, and it is not located within a designated landscape which otherwise would indicate a higher value. However, it affords open views over the Irish Sea, and is likely to be locally valued. There are a number of detractive elements in the view, including primarily in the view to the north-east, over industrial development on the Poolbeg Peninsula. The value is considered to be medium.

247. Taking into account the judgements of susceptibility and value, the sensitivity to change is considered to be medium.

Magnitude of change and significance of effect during construction phase

248. During construction, activity within the landfall area, at landfall, and within the onshore substation site will be experienced by receptors at this viewpoint, as well as recreational receptors across a wider area of Sandymount Strand.

249. Across Sandymount Strand to the north-east, works associated with the landfall cable duct installation, open cut intertidal cable duct installation, and laying and burial of cables within the landfall area (during low tide) will be evident. This will include construction of a temporary cofferdam adjacent to the landfall, installation and presence of tensioner platforms, and excavation and installation activity and equipment associated with the laying of cables. Much of these works will be seen against the skyline formed by the Poolbeg Peninsula. Construction activity will be seen at distances of approximately 1.5 km, and as such some aspects will be difficult to discern, although there will be an overall impression of activity.

250. Other activity will include construction on the Poolbeg Peninsula associated with the landfall, including excavation of existing berms, installation of the TJBs, construction of a temporary access ramp, and the presence of a construction compound with material storage areas viewed behind the main areas of excavation. Construction associated within the onshore substation site may also be visible beyond the works at landfall, and will involve views of the upper parts of the emerging GIS building, and crane and plant activity associated with its construction. There will be an increase in activity within the onshore development area generally, associated with heavy plant and cranes. These changes will be phased, such that not all construction activity described here will be seen at the same time. Overall, construction is anticipated to last 36 months.

251. During the construction phase, the construction activity at landfall and throughout the landfall area will occupy a relatively large horizontal extent of the view from this viewpoint and surrounding parts of Sandymount. The vertical extent of these works will, however, be very narrow at this range. Overall, the magnitude of change is considered to be medium-low on account of the open views combined with distance. Similar changes to views will be experienced by recreational and residential receptors within the surrounding area, including recreational receptors on Sandymount Strand and further south on Sandymount Promenade, and residential receptors along Strand Road.

252. The sensitivity of receptors at Viewpoint 7: Strand Road, as well as recreational and residential receptors in the surrounding area, is considered to be medium, and the magnitude of the impact is assessed as medium-low. Therefore (as per the matrix in **Appendix 23.2**), a **moderate-minor** adverse effect is predicted, which is not significant. These changes will be short-term.

Magnitude of change and significance of effect during O&M phase

253. During the O&M phase, the GIS building will be partially visible in the view to the north-east. All other infrastructure within the OTI will be screened from view. In particular, the landform and vegetation around Irishtown Nature Park will screen views towards the Statcom and ESB buildings, and the lower parts of the GIS building.

254. The colour and materials of the cladding used for the GIS building will be in keeping with the surrounding development, in particular the Dublin Waste to Energy facility, which will be seen to the west. The GIS building will cause industrial development to be seen above the vegetated landform of Irishtown Nature Park. This sector of the skyline currently features more limited industrial development, and the OTI will therefore represent a change to the skyline. However, it will appear only slightly above the horizon in this direction, and its influence will therefore be limited, particularly given the scale of the GIS building in comparison to nearby development, including Dublin Waste to Energy facility and ESB Poolbeg Generating Station.

255. The OTI will represent a negligible change to the view. The infrastructure will occupy a very small proportion of the overall view available from this viewpoint, and will be in keeping with surrounding industrial development on the Poolbeg Peninsula. Part of one of the buildings will be visible, but it will appear smaller in scale than the development in the surrounding context. The design of the building, including the colour and materials, will reduce its visual prominence. There will be a limited change to the skyline to the north-east as a result of the OTI. Views in all other directions, including to the east over Dublin Bay and the Irish Sea, will remain unaltered. Overall, the magnitude of change is considered to be negligible.

256. Similar views will be experienced by recreational receptors throughout a wider area within Sandymount Strand and Merrion Strand to the east. Residential receptors in the surrounding area may also experience similar views, although these are likely to be oblique and therefore more limited, due to the orientation of properties in this area, which are generally positioned with views to the south-east towards Dublin Bay.

257. The sensitivity of receptors at Viewpoint 7: Strand Road, as well as recreational and residential receptors within the surrounding area, to changes associated with the OTI is considered to be medium, and the magnitude of the impact is assessed as negligible. Therefore (as per the matrix in **Appendix 23.2**), a **minor adverse** effect is predicted, which is not significant. These changes will be long-term and reversible.

Viewpoint 8: Dublin Port Ferry Terminal 1

Baseline and receptor sensitivity

258. This viewpoint is located at Dublin Port Ferry Terminal 1, adjacent to the terminal building. The viewpoint is representative of receptors travelling on ferries departing and arriving at Dublin Port. Actual views from the ferry terminal building and its surroundings are likely to be more limited, due to screening by intervening infrastructure and frequent berthed ferries. Views will also be experienced by people working in and around the ferry terminal.

259. The focus of views from this location is to the south over the Poolbeg Peninsula. Views are contained to the north by the ferry terminal building, and to the east and west by associated infrastructure. To the south-east, there are relatively open views towards Dublin Bay. The Great South Wall extends into the distance, and Poolbeg lighthouse at the end of the wall marks the entrance to Dublin Port.

260. The Great South Wall continues to the west, in closer proximity to the viewpoint, and forms an increasingly industrial skyline in views to the south. From south-east to south-west, industrial elements visible on the skyline include ESB Poolbeg Generating Station, including the distinctive decommissioned chimneys, which form a prominent feature, the former Pigeon House Power Station, Ringsend WWTP, Dublin Waste to Energy facility, Ecocem Dublin Plant, ESB Dublin Bay Power Plant, and cranes and infrastructure associated with Dublin docklands. These elements occupy the majority of the view from this location, with just a small proportion occupied by more open views out to sea. There are also longer-distance views available to the south beyond the Poolbeg Peninsula of hills on the southern edge of Dublin, which form the horizon.

261. People travelling on ferries are considered to have lower susceptibility to change associated with the OTI, as their focus is only partially on their surroundings, although they may be travelling for recreational purposes and therefore have a higher appreciation of their surroundings. Many will be indoors by this point on their arrival to Dublin. Existing views of the surrounding industrial context will also moderate the susceptibility to changes of a similar type. Overall, susceptibility is considered to be medium-low.

262. The view is not located within any landscape designations, which otherwise would indicate a higher value. The view features a baseline with extensive industrial development, and few features of value, although there are views towards the historically important and locally valued former Pigeon House Power Station and decommissioned chimneys of the ESB Poolbeg Generating Station to the east. Overall, the value of the view is considered to be low.

263. Taking into account the judgements of susceptibility and value, the sensitivity to change is considered to be medium-low.

Magnitude of change and significance of effect during construction phase

264. During the construction phase, visibility of construction works associated with the OTI will primarily be restricted to the area within the onshore substation site, seen to the south. This will include a construction compound associated with the tunnel for the onshore export cable, the reclamation of land, new revetments, and piling to create a substation platform, followed by the construction of the GIS, ESB, and Statcom buildings, and installation of electrical equipment. There will be an increase in activity around the onshore substation site associated with heavy plant, cranes, scaffolding, and material storage. This will be viewed within the context of a busy port, and seen in a part of the view which is subject to existing industrial activity, including the movement of cranes and plant. However, this activity will be seen in a section of the view which currently features a skyline formed by hills on the southern edge of Dublin, and construction activity will partially obscure these views. There may also be visible open cut trenching associated with the ESBN network cables. Construction lighting will be evident in winter months when working days will extend into hours of darkness, within a lit environment. Visibility of construction activity within other parts of the onshore development area and the landfall area will be limited. Overall, the magnitude of change is considered to be medium-high.

265. The sensitivity of receptors at Viewpoint 8: Dublin Port Ferry Terminal to changes associated with the OTI is considered to be medium-low, and the magnitude of the impact is assessed as medium-high. Therefore (as per the matrix in **Appendix 23.2**), a **moderate** adverse effect is predicted, which is assessed as not significant. These changes will be short-term. As a moderate adverse effect, in accordance with the methodology, this could be determined as being either significant or not significant. In this instance, the contributing levels of sensitivity and magnitude of change are at the lower levels of where they could contribute to a significant effect. In addition, the developed context and the transient nature of the receptors leads to the effects being assessed as not significant.

Magnitude of change and significance of effect during O&M phase

266. During the O&M phase, the GIS, ESB and Statcom buildings and revetments will be visible in the view to the south, across Dublin Port at relatively close range, replacing views of an area of reclaimed land with revegetated spoil heaps and screening out a more complex arrangement of industrial buildings and infrastructure with buildings of a simple architectural form. The bridge access over the cooling water discharge channel to the onshore substation site may be apparent in this view, although it is likely to be difficult to discern and will be seen in the context of the existing structures. The OTI will introduce a change to the skyline to the south from this viewpoint. The view in this direction currently features longer-distance views towards partially forested, moorland hills which rise up beyond the southern edge of Dublin. However, with the addition of the OTI, the view in this direction will be contained in closer proximity. The GIS building will appear slightly taller in the view than other existing adjacent industrial development. The Statcom building will appear to be a similar height above the horizon as the Dublin Waste to Energy facility, which it will be seen alongside, while the ESB building will be taller in the view than development at Ringsend WWTP, which it will be seen in front of. The colour and materials of the buildings will be in keeping with surrounding development, including the

adjacent infrastructure within the Ecocem Dublin Plant, Ringsend WWTP, and Dublin Waste to Energy facility.

267. The OTI will represent a medium magnitude of change to the view. The infrastructure will be seen in relatively close proximity. There will be a change to the skyline to the south, which will appear more built-up as a result of the OTI, and which will limit the longer-distance, slightly more open views which are currently available in this direction. The magnitude of change will be slightly moderated by existing views of the surrounding industrial context. Views in all other directions and towards the decommissioned chimneys of the ESB Poolbeg Generating Station and the former Pigeon House Hotel will remain unaltered.

268. The sensitivity of receptors at Viewpoint 8: Dublin Port Ferry Terminal to changes associated with the OTI is considered to be medium-low, and the magnitude of the impact is assessed as medium. Therefore (as per the matrix in **Appendix 23.2**), a **moderate-minor** adverse effect is predicted, which is assessed as not significant. These changes will be long-term and reversible.

Principal visual receptors

269. This section provides an assessment of the effects experienced by principal visual receptors scoped in for assessment in **Section 23.6.5**. While views experienced by the visual receptors scoped in above are generally provided within the viewpoint assessment, separate assessments of the impacts on principal visual receptors are included for people travelling along the footpath between Sandymount and the Great South Wall and for users of Pigeon House Road.

Footpath between Sandymount and the Great South Wall (Great South Wall Walk)

Baseline and receptor sensitivity

270. This footpath passes west to east from Sandymount, along the southern edge of the Poolbeg Peninsula, to the Great South Wall, as indicated in **Figure 23.5**. It is approximately 5 km in length. The eastern end of the route is marked by Poolbeg Lighthouse. Receptors travelling on the footpath include walkers, runners, and cyclists. It is a popular recreational route in the local area and provides access onto Sandymount Strand, which is also popular with recreational receptors. Viewpoints 2 and 5 are located on this footpath, and the assessments above are representative of receptors at specific points on the route, as shown in **Figure 23.5**.

271. The focus of views from this location generally extends from south to east, over the broad expanse of Sandymount Strand towards the Irish Sea. From eastern parts of the route, along the Great South Wall, there are also views to the north over the entrance to Dublin Port. From parts of the route along the southern edge of the Poolbeg Peninsula, the view to the north is contained by vegetation, topography, and existing industrial development. From some parts, this industrial development contributes to a distinctive skyline in the view in this direction, although this is partially obscured along parts by the landform and vegetation, particularly to the south of Irishtown Nature Park. Views to the west from much of the route are contained, from western parts by residential development within Sandymount, and from eastern parts by the Poolbeg Peninsula. Overall, views are most open to the south and east over Sandymount Strand.

272. This footpath is popular with recreational users, and views of the surrounding landscape form a key part of the overall experience. There are existing views of industrial infrastructure, which will moderate the susceptibility to change. Susceptibility to the changes proposed is therefore considered to be medium-high.

273. The view from the route is not formally recognised, and it is not located within a designated landscape, although it is a dedicated footpath and passes through the Irishtown Nature Park, which indicates a higher value. It affords open views over Dublin Bay and is likely to be locally valued. There are a number of detractive elements in the view, including primarily in the view to the north at relatively close proximity, over industrial development on the Poolbeg Peninsula, although these views are also over a distinctive skyline, which may be valued locally. The value of the view is considered to be medium.

274. Taking into account the judgements of susceptibility and value, the sensitivity to change is considered to be medium-high**.**

Magnitude of change and significance of effect during construction phase

275. During construction, activity within the landfall area, at landfall, and within the onshore substation site will be experienced by receptors travelling along this route. Across Sandymount Strand to the east and south, works associated with the landfall cable duct installation, open cut intertidal cable duct installation, and laying and burial of cables within the landfall area (during low tide) will be evident. These works will be seen at close proximity from parts of the route. This will include construction of a temporary cofferdam adjacent to the landfall, installation and presence of tensioner platforms, and excavation and installation activity and equipment associated with the laying of cables. These activities will be seen in close-proximity views to the south by receptors travelling in both directions along central parts of the route, as well as in longer-distance views by receptors travelling east at its western extent, and receptors travelling west at the east. These works will be seen either in the context of a skyline formed by Sandymount, to the south and west, or in the foreground of more open views over Dublin Bay. Views of construction activity in the landfall area are judged to be experienced along approximately the whole route, due to the more open nature of views in this direction, although they will generally occupy a relatively limited extent of the wider views available from this route, particularly when seen at distance.

276. Other activity will include construction on the Poolbeg Peninsula associated with the landfall, which will require the temporary diversion of a small section of the footpath for a period of eight weeks. Other works will include vegetation removal, excavation of existing berms, installation of the TJBs, construction of a slipway, and the presence of a construction compound with material storage areas viewed behind the main areas of excavation. Again, these activities will be seen in close proximity from parts of the route, and will bring the active and industrial character of the Poolbeg Peninsula into closer proximity to the more tranquil footpath. These views will be experienced over a relatively localised extent of the route, considered to be no more than approximately 1 km in length, extending from the western end of the footpath to Irishtown Nature Park. From other parts of the route, views of the landfall works are not considered likely.

277. Construction associated with the onshore substation site may also be visible from some limited parts of the route, although this is likely to be restricted to glimpsed views of cranes due to screening of lower-level elements by intervening development.

278. There will be an increase in activity within the onshore development area associated with heavy plant and cranes. These changes will be phased, such that not all construction activity described here will be seen at the same time. Overall, construction is anticipated to last 36 months.

279. During construction, the activity at landfall and throughout the landfall area will occupy a relatively large proportion of the view from this route, and will be seen to the north and south of the route, and by receptors travelling in both directions. Overall, the magnitude of change associated with the OTI and landfall works is considered to be medium on account of the extent of the view occupied by construction works, and the length of the footpath affected by such views combined with relatively close proximity at some points. Elements of the works within the landfall area will be seen along approximately the full extent of the route, but are likely to occupy a relatively limited extent of the overall

view, particularly from more distant parts of the route to the east, where the focus of views is over Dublin Bay to the east. Views of construction within the onshore development area will be experienced over approximately 1 km of the 5 km route.

280. The sensitivity of receptors travelling on the footpath between Sandymount and the Great South Wall is considered to be medium-high, and the magnitude of the impact is assessed as medium. Therefore (as per the matrix in **Appendix 23.2**), a **moderate** adverse effect is predicted, which, taking a precautionary approach, is considered to be significant**.** These changes will be short-term.

Magnitude of change and significance of effect during O&M phase

281. During the O&M phase, visibility of the OTI will predominantly be restricted to views of infrastructure within the onshore substation site, seen from eastern parts of the route along the Great South Wall. Views from this part of the route will be as described for Viewpoint 2. Views of the Statcom building might also be glimpsed from western parts of the route in the view to the north-east, as shown on the ZTV in **Figure 23.5**. All other infrastructure within the OTI will be screened from view.

282. The magnitude of change associated with views of the OTI from this route will range from low to negligible. Where there is clear visibility of the onshore substation, predominantly along the Great South Wall, as indicated on the ZTV in **Figure 23.5**, the magnitude of change will be low. This view will be experienced by recreational receptors travelling west along the route. From other parts of the route with visibility of the onshore substation, restricted to short sections to the east of Irishtown Nature Park and at its western extent near Sandymount, the magnitude of change will be negligible. From all other parts there will be no change.

283. Where the infrastructure is visible, it will occupy a small proportion of the overall view available from this route, and will be in keeping with surrounding industrial development on the Poolbeg Peninsula. The buildings will generally appear smaller in scale than the development in the surrounding context. Views in the majority of directions from the route, including to the south and east over Dublin Bay and the Irish Sea, will remain unaltered. Overall, the magnitude of change is considered to range from low to negligible.

284. The sensitivity of receptors on the footpath between Sandymount and the Great South Wall to changes associated with the OTI is considered to be medium-high, and the magnitude of the impact is assessed as low to negligible. Therefore (as per the matrix in **Appendix 23.2**), an effect ranging from moderate-minor to **minor adverse** is predicted, which is not significant**.** These changes will be long-term and reversible.

285. Over time, proposed woodland planting in the vicinity of and between the landfall and the temporary access ramp will become established and will extend the woodland of the Irishtown Nature Park westwards along the low mounds. This will offer further screening of the industrial development beyond the mounds as well as offering an enhanced natural experience to walkers on the adjacent section of the footpath.

Pigeon House Road

Baseline and receptor sensitivity

286. This route passes broadly west to east through the Poolbeg Peninsula. It passes north-east from the junction with South Bank Road at the western end of the peninsula, before turning to the east, to the north of Dublin Waste to Energy facility and Ringsend WWTP. Near the former Pigeon House Hotel, the route passes to the south along a short stretch. It then passes east again, and follows the southern

extent of the Poolbeg Peninsula to the Great South Wall. There is a small garden space adjacent to the route, to the south of the lagoons associated with Ringsend WWTP. There are several features of cultural heritage importance within this garden, and it is an area of some amenity value within an otherwise industrial area.

287. Receptors on this route include recreational receptors travelling in cars to access Irishtown Nature Park, the Great South Wall, beaches, and the footpath between Sandymount and the Great South Wall. There are two small public car parks towards the eastern extent of Pigeon House Road. People working in the surrounding industrial context on the Poolbeg Peninsula will also travel along this route. Some recreational receptors might travel on foot along this route, including those visiting the small garden space.

288. Existing views along much of the route are contained by the surrounding industrial infrastructure, including container storage at its western extent, ESB Dublin Bay Power Plant, Ecocem Dublin Plant, Dublin Waste to Energy facility, and Ringsend WWTP. There are glimpsed views to the north over Dublin Port from central parts of the route. Where the road passes to the east along the southern edge of the Poolbeg Peninsula, open views are available over Sandymount Strand and Dublin Bay towards the Irish Sea.

289. Road users are considered to have lower susceptibility to change associated with the OTI, as their focus is only partially on their surroundings. However, some receptors travelling along Pigeon House Road will be recreational receptors travelling to the Great South Wall or Irishtown Nature Park, who will have a higher susceptibility to change due to a greater appreciation of their surroundings. Receptors visiting the small garden to the north of the road will also have a higher appreciation of their surroundings. Existing views of the surrounding industrial context will moderate the susceptibility to changes of a similar type, although there are open, expansive views from eastern parts of the route over Dublin Bay. Overall, susceptibility is considered to be medium-low.

290. This route is not located within any landscape designations, which otherwise would indicate a higher value. The view features a baseline with extensive industrial development, and few features of value, although there are views towards the historically important and locally valued former Pigeon House Power Station and decommissioned chimneys of the ESB Poolbeg Generating Station to the east, and open views over Sandymount Strand and Dublin Bay from eastern parts of the route. Overall, the value of the views is considered to be medium-low.

291. Taking into account the judgements of susceptibility and value, the sensitivity to change is considered to be medium-low.

Magnitude of change and significance of effect during construction phase

292. During the construction phase, a number of elements associated with the construction of the OTI will be visible to receptors travelling along this route. Close views of construction activity within the onshore substation site will be accessible for receptors travelling in both directions along central parts of the route. This will include a construction compound associated with the tunnel for the onshore export cable, construction of the GIS, ESB, and Statcom buildings, and installation of electrical equipment and security fencing. There will be an increase in activity around the onshore substation site associated with heavy plant, cranes, scaffolding, and material storage, which will result in a change to the skyline across this area. Views of this activity will primarily be experienced from parts of the route in relatively close proximity to the onshore substation site, with screening by surrounding industrial infrastructure and vegetation alongside the route screening views from other parts. However, it is likely that there will be filtered views of construction activity within the onshore substation site from the small garden area to the north of Pigeon House Road, seen beyond stormwater tanks within the Ringsend WWTP. Construction lighting will be evident in winter months when working days will extend into hours of darkness, in the context of a lit environment.

293. One temporary construction compound will be seen at the corner of Shellybanks Road and Pigeon House Road, associated with the tunnel for the onshore export cable. Again, these views will primarily be experienced from parts of Pigeon House Road in close proximity to Shellybanks Road, with other infrastructure and vegetation screening more distant views.

294. Further east, at the point at which Pigeon House Road passes to the south, to the east of the Ringsend WWTP, receptors will experience views of construction activity associated with the ESBN network cables, including the presence of two HDD compounds to the north and east of Pigeon House Road. The position of the northern compound will require removal of vegetation to the north of Pigeon House Road. There will also be views of a section of open cut along Pigeon House Road itself, to the east of the southern compound.

295. The construction activities will occur within a context of industrial development and activity, which moderates their impact.

296. Overall, the magnitude of change is considered to be medium.

297. The sensitivity of receptors on Pigeon House Road, including recreational receptors and workers within OT the surrounding area, to changes associated with the OTI is considered to be medium-low and the magnitude of the impact is assessed as medium. Therefore (as per the matrix in **Appendix 23.2**), a **moderate-minor** adverse effect is predicted, which is assessed as not significant. These changes will be short-term.

Magnitude of change and significance of effect during O&M phase

298. During the O&M phase, infrastructure within the onshore substation site will be visible from central parts of Pigeon House Road, in relatively close proximity to the OTI. The GIS, ESB, and Statcom buildings, outdoor electrical infrastructure, and security fence will be visible in the view to the north, seen beyond infrastructure associated with the Ringsend WWTP and the access road for the Ecocem Dublin Plant by receptors travelling in both directions along the route. The access bridge over the cooling water discharge channel will also be visible. The OTI will introduce a change to the skyline to the north from this route, experienced over approximately 500 m of the 2.5 km route. The view in this direction currently has a slightly more open outlook, albeit still contained at relatively close proximity by lower-level infrastructure, due to the level nature of the topography in this area. However, with the addition of the OTI, the view in this direction will be contained in closer proximity, and the buildings will be seen at greater height above the horizon than the existing elements in the view.

299. However, the buildings will appear similar in scale to or smaller than surrounding development throughout the view. The colour and materials of the cladding of the buildings will also be in keeping with surrounding development, including the adjacent infrastructure within the Ecocem Dublin Plant.

300. From the small garden to the north of Pigeon House Road, changes associated with the onshore substation site will also be visible, although likely partially filtered by vegetation alongside Pigeon House Road and screened from parts of the garden by the features within it, including large stone walls. Other changes associated with the operation and maintenance of the OTI will include the loss of trees along Pigeon House Road itself to accommodate the HDD compound associated with the ESBN network cables. However, replacement planting, including native shrub species, is proposed in this area, and once it matures this planting will provide a similar level of screening as the planting removed from this location.

301. The OTI will represent a medium magnitude of change to the views from a section of this route. Views may be experienced along up to 500 m of the 2.5 km route. The infrastructure within the onshore substation site will be seen in close proximity along the central section of the route, as well as from the small garden to the north of the road. It will occupy a relatively limited proportion of the overall view available from these areas, and will be in keeping generally with the surrounding industrial context.

There will be a change to the skyline to the north, which will appear more built-up as a result of the OTI, and which will limit the slightly more open views that are currently available in this direction. The views along other parts of the route will remain unaltered as the cable route is below ground.

302. The sensitivity of receptors travelling on Pigeon House Road, including recreational receptors and workers within the surrounding area, to changes associated with the OTI is considered to be medium-low, and the magnitude of the impact is assessed as medium for a 500 m section of the route. Therefore (as per the matrix in **Appendix 23.2**), a **moderate-minor** adverse effect is predicted, which is not significant. These changes will be long-term and reversible..

23.10.4 Decommissioning phase

Impact 1: Impacts on landscape features within the onshore development area

303. It is considered that landscape features planted over or in the vicinity of the ESBN network cables or the onshore export cables are unlikely to be removed during decommissioning. Landscape features may, however, be removed to facilitate decommissioning compounds and are likely to be smaller in scale within similar areas to the construction stage compounds, where these remain available.

304. The effects on specimen trees, amenity screen planting and naturally regenerated scrub are likely to be the same as or lower than the effects during construction. It is assessed that there will be a **minor** adverse effect on landscape features, which are assessed as not significant.

Impact 2: Impacts on landscape / townscape character

305. During the decommissioning phase, effects on landscape / townscape character will be equivalent to or less than those experienced during the construction phase. It is assessed that there will be a minor adverse effect on townscape character within the Poolbeg Peninsula TCA, and a **moderate** adverse effect on landscape character within the Mudflats LCA, which are assessed as not significant. These effects will be short term and reversible.

Impact 3: Impacts on visual amenity

306. During the decommissioning phase, effects on visual amenity will be equivalent to or less than those experienced during the construction phase. There will be **minor** (not significant) effects on views experienced at Viewpoint 2: Great South Wall and Viewpoint 3: Pigeon House Road. There will be moderate-minor (not significant) effects at Viewpoint 1: Bull Wall, Viewpoint 6: Clontarf Promenade, Viewpoint 7: Strand Road, and on views experienced by visual receptors on Pigeon House Road. Moderate (not significant) effects on views will be experienced at Viewpoint 4: Sandymount Promenade and Viewpoint 8: Dublin Port Ferry Terminal 1. Moderate (significant) effects will be experienced at Viewpoint 5: Sandymount Strand and on the footpath between Sandymount and the Great South Wall. These effects are considered to be adverse, short term and reversible.

23.11 Cumulative impacts

307. A fundamental component of the EIA is to consider and assess the potential for cumulative effects of the CWP Project with other projects, plans, and activities (hereafter referred to as ‘other development’).

308. **Appendix 23.1** presents the findings of the Cumulative Effects Assessment (CEA) for LVIA, which considers the residual effects presented in **Section 23.10** alongside the potential effects of other proposed and reasonably foreseeable other development.

309. A summary of the CEA for LVIA is presented below.

310. The LVIA CEA assessed the potential cumulative effects on landscape / townscape and visual receptors from the construction and operation and maintenance phases of the CWP Project alongside other development. Visual receptors at three locations within the LVIA study area were considered to have the potential to experience significant cumulative effects and were assessed in detail. Four other developments were included in the cumulative context, against which the potential cumulative effects of the CWP Project were assessed. The CWP Project was not considered to have the potential to result in significant cumulative effects when considered alongside any other cumulative developments. The other developments included in the CEA are shown in **Figure 23.6**. The CEA for LVIA does not identify any significant cumulative effects resulting from the addition of the CWP Project to a context containing other development.

23.12 Transboundary impacts

311. There are no transboundary impacts with regard to LVIA as the onshore development area will not be sited in proximity to any international boundaries. Transboundary impacts are therefore scoped out of this assessment and are not considered further.

23.13 Inter-relationships

312. The inter-related effects assessment considers the potential for all relevant effects across multiple topics to interact, spatially and temporally, to create inter-related effects on a receptor group. This includes incorporating the findings of the individual assessment chapters to describe potential additional effects that may be of greater significance when compared to individual effects acting on a receptor group.

313. The term ‘receptor group’ is used to highlight the fact that the proposed approach to the inter-relationships assessment has not assessed every individual receptor considered in this chapter, but instead focuses on groups of receptors that may be sensitive to inter-related effects.

314. **Chapter 5 EIA Methodology** provides a matrix to show at a broad level where across the EIAR interactions between effects on different receptor groups have been identified.

315. The potential inter-related effects that could arise in relation to LVIA are presented in **Table 23-12**. If there are additional effects, these are considered additively and qualitatively using expert judgement.

Table 23-12 Inter-related effects (phase) assessment for LVIA]

Impact / receptor	Related chapter	Phase assessment
Impact 2: Impacts on landscape / townscape character	Chapter 15 SLVIA	Based on the assessments undertaken in **Appendix 15.5** of **Chapter 15 SLVIA**, the assessment identifies no significant inter-related landscape effects resulting from the construction or operation of the offshore infrastructure and the OTI. This is due to the geographic separation of the offshore elements of the CWP Project from the TCAs / LCAs assessed as part of the LVIA, as well as the existing industrial context of those TCAs / LCAs, as described in the LVIA.
Impact 3: Impacts on visual amenity	Chapter 15 SLVIA	Inter-related effects have the potential to occur on viewpoints and visual receptors which experience views of the construction of the OTI and landfall works, alongside views of construction associated with the offshore infrastructure. **Chapter 4 Project Description** contains information on the phasing of the onshore and offshore elements of the project. According to this programme, the WTG foundations will be constructed during the construction phase for the OTI. However, the main influence of the construction works associated with the WTG foundations will be an increase in the number of vessels offshore, which is not considered to result in significant inter-related effects. There will be a temporal overlap of approximately 4 months of construction of the onshore substation and WTGs. There will be no temporal overlap of the landfall works or onshore export cable construction with the construction of WTGs. As such, potential for inter-related effects is restricted to visual receptors viewing construction activity associated with the onshore substation and WTGs. While significant effects have been identified at Viewpoint 5: Sandymount Strand on visual receptors travelling on the footpath between Sandymount and the Great South Wall in the LVIA, these are largely due to views of construction activity at the landfall. Construction activity associated with the onshore substation is not considered likely to give rise to significant effects on visual amenity, and

Impact / receptor	Related chapter	Phase assessment
		significant effects across parts of the LVIA study area with visibility of the construction of the onshore substation are not identified as likely to have significant effects within the assessment in **Chapter 15: SLVIA**. As such, the assessment identified no significant inter-related visual effects resulting from the construction of the offshore elements of the CWP Project and the OTI. There is no potential for inter-related effects to occur during the O&M phase.

316. The visualisations and figures associated with the LVIA (**Appendix 23.3**) are also used to support the assessment of effects on cultural heritage receptors contained within **Chapter 22 Onshore Archaeology and Cultural Heritage**. Both chapters consider the potential effects of the visibility of onshore elements of CWP on onshore landscape and visual receptors. The LVIA considers this in terms of the effects on visual amenity and landscape / townscape character, while **Chapter 22 Onshore Archaeology and Cultural Heritage** considered visibility of CWP in relation to the settings of cultural heritage assets. Cultural heritage features are referenced in the LVIA where they are relevant to the value or view. The impact on these receptors is assessed in **Chapter 22 Onshore Archaeology and Cultural Heritage**. There is no potential for inter-related effects associated with cultural heritage to occur.

23.14 Potential monitoring requirements

317. No monitoring is required in relation to the LVIA.

23.15 Impact assessment summary

318. This chapter of the EIAR has assessed the potential environmental impacts on the landscape and visual resource from the construction, operation and maintenance, and decommissioning phases of the CWP Project.

319. This section, including **Table 23-13**, summarises the impact assessment undertaken and confirms the significance of any residual effects, considering embedded mitigation.

320. Full methodology for the assessment of effects is provided in **Appendix 23.2**. Broadly, the LVIA has been undertaken using the following steps. The scope of the assessment has been defined with a study area that covers a 5 km radius from the onshore substation, and the baseline established to identify the receptors that may be affected, and their key characteristics and value. To determine the scope of the LVIA, and receptors required to be assessed in detail, consultation has been undertaken with DCC. A preliminary assessment has been undertaken to identify which receptors are likely to be significantly affected and therefore require detailed assessment. Interactions have been identified between the OTI and landfall works, and landscape / townscape and visual receptors to predict potentially significant effects which may arise. Judgements have been made of the sensitivity to change and the magnitude of change as a result of the OTI and landfall works, and these have been

combined to assess the significance of landscape / townscape and visual effects. A separate assessment of cumulative effects has also been undertaken, and is provided in **Appendix 23.1**.

321. The LVIA has considered the impacts of the OTI and landfall works on landscape features, landscape / townscape character, and visual amenity. Impacts experienced during the construction and O&M phases have been considered in detail, and impacts as a result of decommissioning are anticipated to be the same or less than those identified during construction.

322. Receptors scoped in for detailed assessment within the LVIA comprise landscape features within the onshore development area, including specimen trees, amenity screen planting and naturally regenerated scrub; landscape / townscape character areas experiencing direct effects as a result of the OTI and landfall works, comprising Poolbeg Peninsula TCA and Mudflats LCA; and viewpoints and visual receptors within the 5 km LVIA study area.

323. All mitigation relating to landscape / townscape and visual effects has been embedded into the design of the OTI and onshore development area. This includes aspects of the site selection process that have minimised the potential for significant effects to arise, the well-considered design of the onshore substation, and proposals for reinstatement of planted areas and further areas of woodland / shrub planting along the berms adjacent to the Great South Wall Walk, which will extend westwards the woodland amenity of Irishtown Nature Park.

324. There are no residential settlements and few other sensitive landscape and visual receptors within close proximity to the OTI. The OTI is not within an area that is covered by a landscape planning designation, with the closest being the North Bull Island Special Amenity Area Order (SAAO), located in the north of the LVIA study area. The industrial and energy development context of the surrounding area will minimise the opportunity for significant effects to occur as a result of the OTI on landscape / townscape and visual receptors. The parts of the onshore development area which will be influenced by the construction and operation of different elements of the OTI and landfall works are separated from each other by relatively extensive existing industrial development, which limits the opportunity for significant effects on the wider landscape / townscape and visual resource. In addition, the architectural design of the onshore substation, in particular, responds to the surrounding context, meaning that the onshore substation will be in keeping with the character and scale of built form within the surrounding area, thus minimising the potential for significant effects to occur.

325. Overall, significant effects have been identified in relation to two receptors. These comprise short-term, construction phase effects on visual receptors at Viewpoint 5: Sandymount Strand, and construction phase effects on visual receptors travelling on the footpath between Sandymount and the Great South Wall. This is largely because the receptors that will gain these views are of medium-high sensitivity so that even a medium level magnitude of change to their views, occurring over a short duration, may give rise to significant effects. All other effects have been identified as not significant.

Table 23-13 Summary of potential Impacts and residual effects

Potential impact	Receptor	Receptor sensitivity	Magnitude of impact	Significance of effect	Additional mitigation	Residual effect
Construction						
Impact 1: Impacts on landscape features within the onshore development area.	Specimen trees	Medium-low	Medium-low	Minor (not significant)	N/A	Minor adverse (not significant)
	Amenity screen planting	Medium-low	Medium-low	Minor (not significant)	N/A	Minor adverse (not significant)
	Naturally regenerated scrub	Low	Medium-low	Minor (not significant)	N/A	Minor adverse (not significant)
Impact 2: Impacts on landscape / townscape character.	Poolbeg Peninsula TCA	Low	Medium	Minor (not significant)	N/A	Minor (not significant)
	Mudflats LCA	Medium-high	Medium-low	Moderate (not significant)	N/A	Moderate (not significant)
Impact 3: Impacts on visual amenity.	Viewpoint 1: Bull Wall	Medium-high	Low	Moderate-minor (not significant)	N/A	Moderate-minor (not significant)
	Viewpoint 2: Great South Wall	Medium-low	Medium-low	Minor (not significant)	N/A	Minor (not significant)
	Viewpoint 3: Pigeon House Road	Low	Medium	Minor (not significant)	N/A	Minor (not significant)

Potential impact	Receptor	Receptor sensitivity	Magnitude of impact	Significance of effect	Additional mitigation	Residual effect
	Viewpoint 4: Sandymount Promenade	Medium-high	Medium-low	Moderate (not significant)	N/A	Moderate (not significant)
	Viewpoint 5: Sandymount Strand	Medium-high	Medium	Moderate (significant)	N/A	Moderate (significant)
	Viewpoint 6: Clontarf Promenade	Medium-high	Low	Moderate-minor (not significant)	N/A	Moderate-minor (not significant)
	Viewpoint 7: Strand Road	Medium	Medium-low	Moderate-minor (not significant)	N/A	Moderate-minor (not significant)
	Viewpoint 8: Dublin Port Ferry Terminal	Medium-low	Medium-high	Moderate (not significant)	N/A	Moderate (not significant)
	Footpath between Sandymount and the Great South Wall	Medium-high	Medium	Moderate (significant)	N/A	Moderate (significant)
	Pigeon House Road	Medium-low	Medium	Moderate-minor (not significant)	N/A	Moderate-minor (not significant)
Operation and Maintenance						

Potential impact	Receptor	Receptor sensitivity	Magnitude of impact	Significance of effect	Additional mitigation	Residual effect
Impact 1: Impacts on landscape features within the onshore development area.	Specimen trees	Medium-low	Low	Minor (not significant)	N/A	Minor (not significant)
	Amenity screen planting	Medium-low	Low	Minor (not significant)	N/A	Minor (not significant)
	Naturally regenerated scrub	Low	Low	Negligible (not significant)	N/A	Negligible (not significant)
Impact 2: Impacts on landscape / townscape character.	Poolbeg Peninsula TCA	Low	Low	Negligible (not significant)	N/A	Negligible (not significant)
Impact 3: Impacts on visual amenity.	Viewpoint 1: Bull Wall	Medium-high	Low	Moderate-minor (not significant)	N/A	Moderate-minor (not significant)
	Viewpoint 2: Great South Wall	Medium-low	Medium-low	Minor (not significant)	N/A	Minor (not significant)
	Viewpoint 3: Pigeon House Road	Low	Medium	Minor (not significant)	N/A	Minor (not significant)
	Viewpoint 4: Sandymount Promenade	Medium-high	Low	Moderate-minor (not significant)	N/A	Moderate-minor (not significant)
	Viewpoint 5: Sandymount Strand	Medium-high	Negligible	Minor (not significant)	N/A	Minor (not significant)

Potential impact	Receptor	Receptor sensitivity	Magnitude of impact	Significance of effect	Additional mitigation	Residual effect
	Viewpoint 6: Clontarf Promenade	Medium-high	Low	Moderate-minor (not significant)	N/A	Moderate-minor (not significant)
	Viewpoint 7: Strand Road	Medium	Negligible	Minor (not significant)	N/A	Minor (not significant)
	Viewpoint 8: Dublin Port Ferry Terminal	Medium-low	Medium	Moderate-minor (not significant)	N/A	Moderate-minor (not significant)
	Footpath between Sandymount and the Great South Wall	Medium-high	Low to low-negligible	Moderate-minor (not significant) to minor (not significant)	N/A	Moderate-minor (not significant) to minor (not significant)
	Pigeon House Road	Medium-low	Medium	Moderate-minor (not significant)	N/A	Moderate-minor (not significant)
Decommissioning						
Impact 1: Impacts on landscape features within the onshore development area.	Impacts during the decommissioning phase have not been assessed in detail in the LVIA, but are considered to be the same as or less than the effects that will occur during construction.					
Impact 2: Impacts on landscape / townscape character.						

Potential impact	Receptor	Receptor sensitivity	Magnitude of impact	Significance of effect	Additional mitigation	Residual effect
Impact 3: Impacts on visual amenity.						

23.16 References

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