

Chapter 27: Seascape, Landscape and Visual Amenity





ORIEL WIND FARM PROJECT

Environmental Impact Assessment Report Chapter 27: Seascape, Landscape and Visual Amenity

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27 SEASCAPE, LANDSCAPE AND VISUAL AMENITY

27.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) provides an assessment of the potential impacts of onshore and offshore infrastructure of the Oriel Wind Farm Project (hereafter referred to as the 'Project') on seascape, landscape and visual amenity during the construction, operational and maintenance, and decommissioning phases. Whilst the assessment of likely significant effects on seascape, landscape and visual amenity are often interlinked, they are assessed and considered separately within this EIAR chapter.

The assessment presented is informed by the following technical appendices:

- Appendix 4-2: Preliminary Landscape Assessment of Design Options (volume 2A); and
- Appendix 27-1: Seascape, Landscape and Visual Amenity – Accompanying Graphics.
 - Please refer to this appendix for Figures 27-1 to 27-33, which are referenced in this chapter.

The details and competencies of the specialist who prepared this chapter can be found in volume 2A, chapter 1: Introduction.

27.2 Purpose of this chapter

The primary purpose of the EIAR chapter is to provide an assessment of the likely direct and indirect significant effects of the Project on seascape, landscape and visual amenity. In particular this EIAR chapter:

- Presents the existing environmental baseline established from desk studies and site-specific surveys (section 27.7);
- Identifies any assumptions and limitations encountered in compiling the environmental information (section 27.7.7);
- Presents an assessment of the potential likely significant effects on seascape, landscape and visual amenity arising from the Project (section 27.10) based on the information gathered and the analysis and assessments undertaken. An assessment of potential cumulative impacts is provided in section 27.11 and an assessment of transboundary effects is outlined in section 27.12; and
- Highlights any necessary monitoring (section 27.10.7) and/or mitigation measures (sections 27.8.2 and 27.10.6) which could prevent, minimise, reduce or offset the likely significant environmental effects identified in the assessment (section 27.10).

27.3 SLVIA Study area

Three study areas have been defined for the Project, and are collectively referenced as the Seascape, Landscape and Visual Amenity (SLVIA) Study Area. Details of these study areas are described further below. The SLVIA study area is illustrated in appendix 27-1: Seascape, Landscape and Visual Amenity – Accompanying Graphics. Each study area has been selected to capture likely significant effects and has been defined having regard for the scale of the Project, and the baseline conditions informed by field survey. It is deemed that beyond the specified distances, no likely significant effects would arise.

27.3.1 Offshore Wind Turbines And Offshore Substation Study Area

The study area to examine the potential impacts from the offshore infrastructure covers a 60 km radius measured from the centre of the offshore wind farm area, this being the area of sea within which the wind turbines and offshore substation (OSS) will be located. This has been selected in line with best practice guidance referenced in section 27.9.1. This study area is illustrated Figures 27-1 and 27-2.

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27.3.2 Onshore Substation Study Area

The study area to examine the potential impacts from the onshore substation covers a 5 km radius measured from the centre of the onshore substation site as illustrated in Figure 27-3. This distance is the maximum extent within which a significant seascape, landscape or visual effect could occur having regard to the scale of the proposed substation and the baseline landscape and visual amenity.

27.3.3 Landfall and Onshore Cable Route Study Area

The study area to examine the potential impacts from the landfall and onshore cable route covers a 1 km distance area measured from the centreline of the onshore cable route. This distance is the maximum extent within which a significant seascape, landscape or visual effect could occur having regard for the scale of the landfall location and onshore cable route, associated construction compounds, storage areas and the baseline landscape and visual amenity.

27.4 Policy context

Planning policy on renewable energy infrastructure is presented in volume 2A, chapter 2: Policy and Legislation. This section presents planning policy that specifically relates to seascape, landscape and visual amenity, which is contained in the Offshore Renewable Energy Development Plan I (OREDP) (DECC, 2014) (see Table 27-1) and the National Marine Planning Framework (NMPF) (Department of Housing, Planning and Local Government, 2021). Section 27.7.1 outlines the relevant policies from the Louth County Development Plan 2021 – 2027 (LCC, 2021).

In February 2023, the ‘OREDP II - National Spatial Strategy for the transition to the Enduring Regime’ was published in draft and subject to consultation. The key objectives of OREDP II are:

- *“Assess the resource potential for ORE in Ireland’s maritime area.*
- *Provide an evidence base to facilitate the future identification of Broad Areas most suitable for the sustainable deployment of ORE in Ireland’s maritime area.*
- *Identify critical gaps in marine data or knowledge and recommend prioritised actions to close these gaps.”*

The OREDP II will provide an evidence base to facilitate the future identification of Broad Areas of Interest most suitable for the sustainable deployment of ORE in Ireland’s maritime area, to be assessed in greater detail at regional scale. This assessment will subsequently inform the identification of more refined areas as part of the designation process for Designated Maritime Area Plans (DMAP).

When published, the OREDP II will update the original OREDP published in 2014.

Table 27-1: Summary of OREDP provisions relevant to seascape, landscape and visual amenity.

Summary of OREDP - Suggested project-level mitigation measures	How and where considered in the EIAR
Effects on seascape from offshore wind developments	
Consideration should be given to locating devices at a maximum distance from the shore/coast (within technological constraints).	Chapter 4: Consideration of Alternatives and appendix 4-2: Preliminary Landscape Assessment of Design Options (volume 2A) provide information on the design options considered for both turbine size and turbine layout for the Project with regards to seascape, landscape and visual amenity.
Wind farms should not be sited where they appear to block or close the entrance to bays/loughs/narrows/sounds or where they separate a bay from the open sea.	
Wind farms should reflect the shape of the coastline and align with the dominant coastal edge.	
Wind farms should not be sited where they have the potential to fill a bay. The open, expansive nature of the water surface area should be allowed to continue to dominate.	

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Summary of OREDP - Suggested project-level mitigation measures	How and where considered in the EIAR
Wind farms should avoid locations near scattered settlements, as the scale of the array has the potential to dominate the fragmented pattern of the settlement.	
Wind farms should be avoided where they conflict with the scale and subtleties of complex, indented coastal forms.	
Consideration should be given to locating devices in already industrialised and developed seascapes.	

Table 27-2: Summary of NMPF provisions relevant to seascape, landscape and visual amenity.

Planning Policies	How and where considered in the EIAR
Seascape and landscape Policy 1	
Proposals should demonstrate how the impacts of a development on the seascape and landscape of an area have been considered. The proposal will only be supported if they demonstrate that they will, in order of preference: <ul style="list-style-type: none"> a) avoid, b) minimise, or c) mitigate significant adverse impacts on the seascape and landscape of the area. <ul style="list-style-type: none"> d) If it is not possible to mitigate significant adverse impacts, proposals must set out the reasons for proceeding. This policy should be included as part of statutory environmental assessments.	The potential effects of the construction, operational and maintenance and decommissioning phases of the Project on seascape and landscape have been assessed in this chapter. Chapter 4: Consideration of Alternatives and appendix 4-2: Preliminary Landscape Assessment of Design Options (volume 2A) provide information on how the impacts have been minimised through an iterative design process.

27.5 Consultation

Table 27-3 summarises the issues raised relevant to landscape, seascape and visual amenity which have been identified during consultation activities undertaken to date, together with how these issues have been considered in the preparation of this EIAR chapter. Chapter 6: Consultation (volume 2A) provides details on the types of consultation activities undertaken for the Project between 2019 and 2023 and the consultees that were contacted.

Table 27-3: Summary of key consultation relevant to seascape, landscape and visual amenity.

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
October 2019	DAERA – response to Scoping	Potential for significant effects on Areas of Outstanding Natural Beauty (AONB).	The assessment process has influenced the layout of the offshore wind turbines in the interests of the setting of the AONB (see chapter 4: Consideration of Alternatives in volume 2A).
		Establish the landscape designations and policies covering the site and its surroundings.	This has been clearly established and documented for the Project in section 27.4 and section 27.7.
		Assess direct effects on landscape and public perception of change.	Direct effects on landscape and seascape are clearly described in section 27.10 along with effects on landscape and seascape character as they would be experienced by viewers.

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Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
		Describe the landscape character of the site and its surroundings.	The landscape character of the immediate site context is described for the onshore substation, onshore cable route and offshore wind turbines in section 27.7.
		Establish the potential key landscape issues and the areas requiring further investigation during the baseline studies.	The key issues for landscape and seascape and visual amenity have been identified and reported on during the design iterative process which led to the offshore wind turbine layout. Key issues concerning the onshore cable route and onshore substation have also been identified and documented in section 27.10.
August 2019	Failte Ireland – EIA Scoping Response	<p>Provided' EIAR Guidelines for the Consideration of Tourism and Tourism Related Projects' which was recommended to be take account of:</p> <ul style="list-style-type: none"> • A development intended to utilise or enjoy a particular vista or environment should minimise impact upon that environment. 	The iterative design process has sought to minimise effects on tourist attractions such as the Carlingford and Mourne Mountains (see appendix 4-2: Preliminary Landscape Assessment of Design Options and chapter 4: Consideration of Alternatives in volume 2A)
September 2019	Louth County Council - response to Scoping Report	<p>Raised that the Louth County Development Plan (2015-2021) is currently under review. LCC highlighted a number of policies of relevance to seascape, landscape and visual amenity:</p> <ul style="list-style-type: none"> • Reference to Development Zone 3 – To protect the recreational and amenity value of the coast and Policy RD35 regarding the permitting of development that would not be detrimental to the visual and recreational amenities of the coast. 	The iterative design process has sought to minimise effects on the coast. The assessment of effects (section 27.10) has considered the coast and viewers at the coast. The assessment also takes into consideration the existing Louth County Development Plan 2021-2027.
		<p>Substation location at Stickillin¹.</p> <p>Reference to policies applicable to Development Zones 4 and 5. These include:</p> <ul style="list-style-type: none"> • RD3 – concerning promoting sustainable development and the protection of sensitive landscapes and landscapes of the countryside. • RD 5 - To ensure that such new developments do not impinge on areas of special amenity value or on areas designated as sensitive landscapes. • Development Zone 4 - To provide for a greenbelt area around the urban centres of Dundalk, Drogheda, and Ardee. • RD 18 To resist development along the coast which would detract from its visual appearance or conflict with its recreational and leisure functions. 	<p>The choice of site for the onshore substation, onshore cable route and landfall location was influenced by the objective of minimising effects on sensitive landscapes, including the coast.</p> <p>The onshore substation location considered the objective to minimise or avoid encroachment on green belt areas.</p>

¹ Note these polices were included Louth County Development Plan (2015-2021) at the time of consultation.

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Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
		<ul style="list-style-type: none"> RD 20 To ensure that any development on the foreshore does not detract from the visual amenities of the coast and the public enjoyment thereof. <p>Substation Connection</p> <ul style="list-style-type: none"> Reference to minimising disturbance to coastline, agricultural land, areas of special amenity. 	The onshore cable route, proposed along minor roads, has been designed to minimise disturbance to landscape and the coast. The project is located underneath an existing OHL in order to the minimise the requirement for additional OHL.
September 2019	Transport Infrastructure Ireland	Visual impacts from existing national roads are to be assessed.	These have been considered in the assessment (see section 27.10).
March 2021	Member of the public during public consultation	Can shadow flicker occur from the offshore turbines?	No. Due to the distance of the turbines offshore, there is no potential for shadow flicker effects to occur onshore. shadow flicker is the shadow cast by a rotating wind turbine onto a surface.
January 2023	Member of the public during public consultation	<ul style="list-style-type: none"> Related queries regarding design, height and distance of WTGs from shore. What impact will the Project have together with other projects. Query relating to the colour of the turbines (white) 	<p>See chapter 4: Consideration of Alternatives and chapter 5: Project Description (in volume 2A) for information on selection and design WTGs. Appendix 4-2: Preliminary Landscape Assessment of Design Options also provides further information on the comparative assessment of design options.</p> <p>A cumulative impact assessment (CIA) has been undertaken in section 27.11 and takes into account the impact associated with the Project together with other projects.</p> <p>The turbine colour is carefully selected to minimise its visibility from a distance. In Ireland the background to the turbine is often cloud which merges with the turbine. The actual colour is an off-white matt shade and has been included in the photomontages that accompany this assessment.</p>
September 2023	DAERA – response to further Scoping request	<ul style="list-style-type: none"> In accordance with the UK Marine Policy Statement 2.6.5.3 and 4, in considering the impact of an activity or development on seascape, the applicant should consider existing character and quality, how highly it is valued and its capacity to accommodate change specific to any development. 	Impacts on landscape and seascape are clearly described in section 27.10 along with effects on landscape and seascape character as they would be experienced by viewers.
October 2023	Isle of Man Government	<ul style="list-style-type: none"> Potential for trans-boundary impacts on Manx land/seascapes. 	The assessment of Trans-boundary impacts is included at section 27.12.

27.6 Methodology to inform baseline

27.6.1 Desktop study

Information on the baseline for both the onshore components and the offshore components of the Project was collected through a detailed desktop review of publications and datasets. The key sources (i.e. reports)

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used to inform the baseline characterisation of the Seascape, Landscape and Visual Amenity Study Areas are summarised in Table 27-4 below. These sources provide the most up to date data for this assessment.

Table 27-4: Summary of key desktop reports.

Title	Source	Year	Author
County Louth Landscape Character Assessment	Louth County Development Plan	2021-2027	Louth County Council
Northern Ireland Regional Landscape Character Assessment.	Department of Agriculture, Environment and Rural Affairs (DAERA)	2015	Northern Ireland Environment Agency
Northern Ireland Regional Seascape Character Assessment.	DAERA	2014	Northern Ireland Environment Agency
County Meath Landscape Character Assessment	Meath County Development Plan 2021-2027	2021-2027	Meath County Council (MCC)
County Monaghan Landscape Character Assessment	Monaghan County Development Plan 2019-2025	2019-2025	Monaghan County Council
Fingal Landscape Character Assessment	Fingal County Development Plan 2017-2023	2017-2023	Fingal County Council (FCC)
Cavan Landscape Character Categorisation	Cavan County Development Plan (Chapter 8: Natural Heritage and Environment)	2014 – 2020	Cavan County Council
SEA of the ODREP in the Republic of Ireland, Appendix A Seascape Assessment	Sustainable Energy Authority of Ireland (SEAI)	2010	SEAI
NIAH inventory of designed landscapes,	Department of Culture, Heritage and the Gaeltacht website (DCHG)	-	National Inventory of Architectural Heritage
Mourne AONB Action Plan (Management Plan)	Northern Ireland Environment Agency (NIEA)	-	Mourne Heritage Trust
Register of Parks, Gardens and Demesne of Special Historic Interest in Northern Ireland.	Department for Communities website	2019	Department for Communities
Recorded visibility data	Met Eireann	Accessed 2019	Met Eireann

27.6.2 Site-specific surveys

In order to inform EIAR, site-specific surveys were undertaken. A summary of the surveys undertaken to inform the seascape, landscape and visual amenity assessment are outlined in Table 27-5.

It is noted that following a review of the site photography undertaken in 2019, which has been utilised in the production of the photomontages within Appendix 27-1, the imagery utilised in the production of the photomontages are considered to be valid for assessment purposes as no significant changes to the views illustrated were noted during the site review works.

Table 27-5: Summary of site-specific survey data.

Title	Extent of survey	Overview of survey	Survey contractor	Date	Reference to further information
Seascape, landscape and photographic survey for offshore	Offshore Wind Turbines and Offshore	Photographic survey	RPS	June 2019 September 2019	Appendix 27-1: Seascape, Landscape and Visual Amenity – Accompanying Graphics

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Title	Extent of survey	Overview of survey	Survey contractor	Date	Reference to further information
components of the Project	Substation Study Area				
Seascape and photographic survey of onshore substation	Onshore Substation Study Area	Photographic survey	RPS	September 2019 March 2020	Appendix 27-1: Seascape, Landscape and Visual Amenity – Accompanying Graphics
Seascape, landscape and photographic survey of landfall and onshore cable route	Landfall and Onshore Cable Route Study Area	Photographic survey	RPS	January 2020	Appendix 27-1: Seascape, Landscape and Visual – Accompanying Graphics
Seascape, landscape and photographic survey of landfall and onshore cable route	Offshore Wind Turbines and Onshore Substation Study Area	Baseline Photographic Review	RPS	April 2023	Appendix 27-1: Seascape, Landscape and Visual – Accompanying Graphics

27.7 Baseline environment

27.7.1 Policy and designations: Louth County Development Plan 2021 – 2027

Planning policy on renewable energy infrastructure is presented in volume 2A, chapter 2: Policy and Legislation. This section presents planning policy that specifically relates to seascape, landscape and visual amenity, which is contained in the Louth County Development Plan 2021 – 2027 (LCC, 2021).

Policy – rural development

A range of policies in respect of rural development are outlined in Chapter 3 of the County Development Plan (CDP) 2021 - 2027. Whilst the majority of these policies relate to residential development within urban and rural areas, the CDP identifies the following Policy Zoning, which are identified on Map 3.2 of the CDP;

Rural Policy Zone 1 – defined by the CDP as an ‘Area under strong urban influence and of significant landscape value’

Rural Policy Zone 2 – defined by the CDP as an ‘Area under strong urban influence’

Those policies of relevance are identified below.

Policy HOU 40 states ‘To recognise the sensitive scenic and culturally important landscape in Rural Policy Zone 1 which includes Carlingford Lough and Mountains, part of the UNESCO World Heritage Site of Brú na Bóinne, the Tentative World Heritage Site of Monasterboice, and the Battle of the Boyne Battlefield Site, and the need to carefully manage development in these areas whilst recognising the existing communities in these areas.’

Environment, Natural Resources & the Coast

Policy ENV 56 states ‘To protect the special character of the coast by preventing inappropriate development, particularly on the seaward side of coastal roads. New development, wherever possible, shall be accommodated within existing developed areas and be climate resilient in their design.’

Policy ENV 57 states ‘To strictly control the nature and pattern of development within coastal areas and ensure that it is designed and landscaped to the highest standards, and sited appropriately so as not to detract from the visual amenity of the area. Development shall be prohibited where the development poses a significant or potential threat to coastal habitats or features, and/or where the development is likely to result in altered patterns of erosion or deposition elsewhere along the coast.’

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Policy ENV 65 states *‘To resist development along the coast which would detract from its visual appearance or conflict with its recreational and leisure functions.’*

Policy - landscape character: Louth County Development Plan 2021-2027

Policy in respect of landscape character is as follows.

Policy NBG 23 states *‘To ensure the preservation of the uniqueness of a landscape character type by having regard to its character, value and objectives in accordance with national policy and guidelines and the Louth Landscape Character Assessment and by ensuring that new development meets high standards of siting and design and does not unduly damage or detract from the character of a landscape or natural environment.’*

Policy NBG 24 states *‘To ensure development reflects and, where possible, reinforces the distinctiveness and sense of place of the landscape character types including the retention of important features or characteristics, taking into account the various elements, which contribute to their distinctiveness such as scenic quality, habitats, settlement pattern, historic heritage and land use.’*

Policy NBG 25 states *‘Where appropriate, require that landscape and visual impact assessments prepared by suitably qualified professionals be submitted with development applications, which may have significant impact on landscape character areas, especially in highly sensitive areas.’*

Policy NBG 26 states *‘To explore the designation of Landscape Conservation Areas as appropriate, in conjunction with the relevant Government Department and stakeholders to protect specific important landscapes and particularly in respect of Carlingford Mountain SAC.’*

Policy NBG 27 states *‘To review and update, if necessary the Louth Landscape Character Assessment 2002 on foot of a framework for regional and local landscape character assessments as outlined in the National Landscape Strategy 2015-2025.’*

Policy NBG 28 states *‘To co-operate with adjoining local authorities, both north and south of the border, to ensure that the environment is maintained in a sustainable manner and to support the coordinated designation of sensitive landscapes and policy approaches with adjoining areas and on all aspects of environmental protection, particularly where transboundary environmental vulnerabilities are identified.’*

Policy - designations: Louth County Development Plan 2021-2027

Areas of outstanding natural beauty

Two distinct areas have been designated as Areas of Outstanding Natural Beauty (AONB) by reason of their unspoiled natural landscapes and spectacular scenic quality. These are:

AONB 1 – Carlingford and Feede Mountains. Slieve Foye at 588 m AOD and Black Mountain at 508 m AOD are the highest mountains in the range. It is a mountain moorland landscape covered in gorse, bracken and heather, parts of which are designated as Special Area of Conservation (SAC) and proposed Natural Heritage Area (pNHA). The County Development Plan states *‘Spectacular views are available from a number of vantage points over Carlingford Lough to the Mourne Mountains in Northern Ireland and the Ring of Gullion in County Armagh and over Dundalk Bay to central and south County Louth.’*

AONB 2 – Clogherhead and Port Oriel. A coastal headland described in the County Development Plan as *‘Although less rugged and remote than the Carlingford and Feede Mountains, this area, nevertheless, contains equally spectacular views eastwards to the Irish Sea, southwards towards the Boyne Estuary and County Meath and northwards over Dundalk Bay to the Carlingford and Mourne Mountains.’*

The CDP states that *‘both of these areas are extremely sensitive environments, they have been afforded a high degree of protection in the Plan to preserve their uniqueness and amenity value for the benefit and enjoyment of existing and future generations’*

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Policy NBG 36 states *‘To protect the unspoiled natural environment of the Areas of Outstanding Natural Beauty (AONB) from inappropriate development and reinforce their character, distinctiveness and sense of place, for the benefit and enjoyment of current and future generations.’*

Areas of high scenic quality

A number of Areas of High Scenic Quality (AHSQ) are identified and the CDP states *‘The Council considers it important that AHSQ are protected from excessive development, particularly from inappropriate one-off urban generated housing, in order to preserve their unspoiled rural landscapes.’*

Policy NBG 37 states *‘To protect the unspoiled rural landscapes of the Areas of High Scenic Quality (AHSQ) from inappropriate development for the benefit and enjoyment of current and future generations.’*

Views and prospects

The CDP refers to Views and Prospects of Special Amenity Value and states that *‘The scenery and landscapes of the County are of enormous amenity value to tourists and residents alike, contributing to quality of life and constituting a valuable economic asset. The protection of this asset is therefore of importance in developing the potential of the County.’*

Policy NBG 38 states *‘Protect and sustain the established appearance and character of views and prospects listed in Tables 8.14 – 8.18 of this Plan that contribute to the distinctive quality of the landscape, from inappropriate development’*

Policy NBG 39 states *‘To improve, where necessary, public access to viewing points subject to the availability of resources.’*

Scenic routes

The CDP, 2021-2027 refers to Scenic Routes which require protection and states that *‘Any development proposals, which would interfere with or adversely affect these Scenic Routes, will not be permitted.’*

Policy NBG 40 states *‘To prohibit inappropriate development which would interfere with or adversely affect the Scenic Routes as identified in Table 8.19 and illustrated on Map 8.20.’*

Policy - historic gardens and designed landscapes

The National Inventory of Architectural Heritage (NIAH) holds a database of Historic Gardens and Designed Landscapes (HGD) in County Louth and the importance of these sites is recognised by the Council for which, the following Policies apply.

Policy BHC 38 states *‘To ensure new development will not adversely affect the site, setting or views to and from historic gardens and designed landscapes of heritage significance.’*

Policy BHC 39 which states *‘To require proposals for new development in designed landscapes and demesnes include an appraisal of the landscape, designed views and vistas, and an assessment of significant trees or groups of trees, where appropriate, in order to inform site appropriate design proposals.’*

Policy BHC 57 which states *‘To require that proposals for large scale developments within Designed Landscapes and Demesnes to utilise 3D Digital Survey Modelling tools or such other processes/tools acceptable to the Planning Authority, to demonstrate that the proposed development does not adversely affect the site or its setting.’*

Policy - Northern Ireland Mourne AONB

The Mourne Area of Outstanding Natural Beauty (AONB) was first designated in 1966 under The Amenity Lands Act (Northern Ireland), 1965 in recognition of its special qualities namely, the compact group of twelve mountains at its core. Subsequent legislation in the form of the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 gave statutory recognition to AONBs with emphasis on formulating proposals which would follow designation. The Access to the Countryside (Northern Ireland) Order, 1983 was enacted to provide a variety of powers concerning promoting enjoyment of the countryside.

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The Mourne Mountains are famed in songs and poetry and highly valued at a regional and national level. Designated in 1986 under the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985, it is one of the most picturesque mountain districts in Ireland. The twelve peaks include Slieve Donard, which at 850 m is Northern Ireland's highest mountain. Beneath the cluster of fine peaks, cliffs and rock pinnacles, the mountain slopes descend through moorland, woodland, field and farm before meeting the coast. Slieve Croob lies as a northern outlier to the main massif.

The Mourne Landscape Action Conservation Plan describes the area as follows:

'The Mourne Mountains now contain twelve closely grouped peaks over six hundred metres in height and include Slieve Donard, at 850 m Northern Ireland's highest mountain. Visually the mountains, as well as rising dramatically from the sea, tend to have a gentle rounded appearance, giving them a welcoming feel than can belie the sometimes harsh conditions. A minority of the peaks have very distinctive exposed granite tors, notably Binnian and Bernagh in the Eastern Mournes and Hen Mountain in the Western Mournes. These summits are wonders in themselves when seen up close, the layers in the rock still almost giving the appearance of flowing molten magma.'

A living, working landscape, the Mournes encompass pre-Christian and Christian sites and scheduled monuments; listed buildings; remnants of traditional farming practices and iconic patchwork of dry stone walls; industrial and social history associated with the supply of water to much of Northern Ireland; a tradition of sea fishing; rich folklore; and distinctive vernacular buildings. The legacy of man's interaction with nature and stone can also be seen in the ruined smithies where quarrymen heated and shaped their tools, the mountains once audibly reflecting this hive of industry as they echoed the sounds of hammer on anvil.

This very particular heritage deriving from the landscape shaped the settlement pattern and communities in Mourne. These communities have special characteristics, including expertise in traditional skills derived from agriculture, fishing and the use of granite. What we see and appreciate today therefore is a natural wonder moulded by centuries of human activity. A special place with special traditions.'

The Wind Energy Development in Northern Ireland's Landscapes Supplementary Planning Guidance to Accompany Planning Policy Statement 18 'Renewable Energy' provides guidance on the sensitivity of Northern Ireland's landscapes to onshore wind energy development. Whilst it is recognised that the Project is not located within any of the landscape character areas (LCA's) described in this document, the report contains an assessment of the sensitivity of each of the 130 LCAs identified in the "Northern Ireland Landscape Character Assessment" with reference to the key characteristics and values and provides a starting point for identifying landscape sensitivities, landscape value and overall sensitivity for onshore wind energy developments.

In terms of coastal landscapes, the guidance states the following:

- *'Areas with complex, varied coastal form, for example areas with cliffs, headlands, islands or intricate rocky shorelines, tend to be highly sensitive to wind energy development.'*
- *Areas with a simple, large scale, flat coastal form generally have better capacity for wind energy development but are relatively rare in Northern Ireland.*
- *The settings of distinctive, landmark coastal features may be especially sensitive.*
- *Turbine group size should be appropriate to the scale and character of the coastal landscape. It may be relatively large in simple, flat coastal landscapes, but should be smaller in more complex, varied coastal landscapes.'*

The LCAs within the Mournes' AONB of particular relevance include:

- **LCA 73 Kilkeel Coast**, considered to be of high to medium sensitivity to wind energy development;
- **LCA 74 Kingdom of Mourne**, considered to be of high sensitivity to wind energy development; and
- **LCA 75 Mourne Mountains**, considered to be of high sensitivity to wind energy development.

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27.7.2 Landscape and seascape

The following sections document the baseline landscape and seascape for the Project in regard to the offshore project components. The initial 60 km radius study area identified in section 27.3 was examined with reference to a zone of theoretical visibility (ZTV) developed for the wind turbines and OSS using Geographical Information System (GIS) based software and overlaid on Ordnance Survey map base at a scale of 1:50,000, as identified in Figure 27-2.

The ZTV comprises a map indicating areas from where the wind turbines are theoretically visible. It depicts theoretical visibility that identifies areas within which a development may be visible and is based on a bare earth scenario. However, the Project may not actually be visible in reality due to localised screening which is not represented by the Digital Terrain Model (DTM) such as vegetation, built structures and minor topographical changes.

The ZTV for the Project has been used to refine the baseline. In this regard, only seascape, landscape and visual amenity receptors highlighted within those areas covered by the ZTV have the potential to be affected by the Project and are therefore included in the baseline and considered further in the assessment.

The landscape and seascape baseline for the Project is documented below taking into account the Project components as follows:

- Onshore substation – includes receptors within the specified 5 km radius Onshore Substation Study Area;
- Onshore cable route (including the landfall location) – includes receptors within the 1 km distance Landfall and Onshore Cable Route Study Area (either side of the cable route), and;
- Wind turbines and OSS – includes receptors highlighted in the ZTV model developed for the initial 60 km Study Area.

The landscape and seascape baseline is tabulated in the sections below for each county. For each receptor, approximate distance data, in km, to the offshore wind farm area, the onshore substation site and the onshore cable route is indicated. Directional data is also indicated, for example, NW means the LCA is located northwest of the offshore wind farm area.

In regard to landscape and seascape receptors in Northern Ireland and also Counties Meath, Fingal, Monaghan and Cavan, distance and directional data is indicated for the offshore wind farm area only as these receptors are located outside the study areas for the onshore substation and onshore cable route (including the landfall location).

Further detail in regard to published data for the landscape and seascape receptors in the tables below are presented in appendix 27-1: Seascape, Landscape and Visual Amenity – Accompanying Graphics, and the baseline landscape and seascape character is presented in the following Figures:

- Appendix 27-1; Figure 27.5 - Landscape Character Areas;
- Appendix 27-1; Figure 27.5a – Designated Landscapes and Scenic Routes;
- Appendix 27-1; Figure 27.6 – Landscape Character Areas with 60 Km ZTV;
- Appendix 27-1; Figure 27.6a – Designated Landscapes and Scenic Routes with 60Km ZTV;
- Appendix 27-1; Figure 27.7 – Seascape Character Types; and
- Appendix 27-1; Figure 27.8 – Seascape Character Types with 60 Km ZTV.

Louth Landscape Character Areas

Table 27-6 below lists all of the landscape character areas in County Louth.

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Table 27-6: Landscape Character Areas (LCAs) - Louth County Development Plan 2021-2027.

LCAs Louth County Development Plan 2021-2027	Distance km / Direction –offshore wind farm area	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)
Cooley Lowlands and Coastal Areas	6 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Carlingford Lough & Mountains including West Feede uplands	9.0 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Lower Faughart, Castletown and Flurry River Basins	13.5 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Louth Drumlin and Lake Area	26.7 west	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Boyne and Mattock Valleys	19.6 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Muirhevna Plain	15.2 west	Onshore substation site located within this LCA	Onshore cable route located within this LCA
Uplands of Collon and Monasterboice	18.8 southwest	1.4 south	Outside study area associated with onshore cable route
Dundalk Bay Coast	10.6 west	Outside study area associated with onshore substation	0.4 north
Dunany- Boyne Estuary Coast	10.1 southwest	Outside study area associated with onshore substation	Onshore cable route located within this LCA

No published seascape character data is available for County Louth.

Seascape Character Types (SCTs) – Seascape Character Assessment, SEA of the ODREP, Republic of Ireland.

The seascape character types in the Republic of Ireland are listed in Table 27-7 below together with an indication of approximate distance and direction to the Project as measured from the coastline.

Table 27-7: Seascape Character Types – SEA of the ODREP, Republic of Ireland.

Seascape Character Type No./Name	Distance km / Direction – offshore wind farm area	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)
1. Large open or partially open sea lough with raised hinterland	5.8 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
3. Low lying plateau landscape – Coastline Fingal County	29.4 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
4. Low lying coastal plain and estuarine landscape, low lying islands and peninsulas	10.2 southwest	Outside study area associated with onshore substation	Landfall within this SCT.

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Seascape Character Type No./Name	Distance km / Direction – offshore wind farm area	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)
8. Large Bay	5.2 west	Outside study area associated with onshore substation	0.5 north of the landfall

Northern Ireland

The Regional Landscape Character Areas (RLCAs) in Northern Ireland are listed in Table 27-8 below together with an indication of approximate distance and direction to the Project. RLCA's are illustrated on Figure 27-5.

Table 27-8: Regional Landscape Character Areas - Northern Ireland.

RLCAs Northern Ireland	Distance km / Direction - offshore wind farm area km
Mourne and Slieve Croob (LCA within Mourne AONB)	8.4 north
Newry Valley and Upper Bann (Southern portions of LVA within Mourne AONB and Ring of Gullion AONB)	17.7 northwest
Strangford, Ards and Lecale (LCA within Strangford and Lecale AONB)	31.7 northeast
Slieve Gullion and South Armagh Hills	30.0 northwest

The seascape character areas (SCAs) in Northern Ireland are listed in Table 27-9 below together with an indication of approximate distance and direction to the Project.

Table 27-9: Seascape Character Areas - Northern Ireland.

Seascape Character Areas Northern Ireland	Distance km / Direction - offshore wind farm area
Ards Peninsula	55.2 northeast
Strangford Lough	51.3 northeast
Lecale Coast	39.8 northeast
Dundrum Bay	25.7 northeast
Mourne Coast	4.7 northeast
Carlingford Lough	8.5 north
Irish Sea (South Down)	9.7 northeast

Meath

The landscape character types (LCTs) in County Meath, highlighted in the ZTV for the offshore project components, are listed in Table 27-10 below together with an indication of distance and direction to the Project and illustrated in Figure 27-6.

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Table 27-10: Landscape Character Types - Meath County Development Plan 2021-2027.

Landscape Character Types Meath County Development Plan 2021 - 2027	Distance km / Direction - offshore wind farm area
Coastal Plain	20.7 southwest
Nanny Valley	24.7 southwest
Bellewstown Hills	28.9 southwest
Central Lowlands	26.5 southwest
Boyne Valley	27.7 southwest
Tara Skyrne Hills	43.9 southwest
Rathkenny Hills	27.6 southwest
North Navan Lowlands	31.1 west
North Meath Lakelands	38.3 west
Teervurcher Uplands	51.1 west

No published seascape character data is available for County Meath.

Fingal

The LCTs in Fingal County, highlighted in the ZTV for the offshore project components, are listed in Table 27-11 below together with an indication of distance and direction to the Project and illustrated in Figure 27-6.

Table 27-11: Landscape Character Types - Fingal County Development Plan 2023 2029.

Landscape Character Types - Fingal County Development Plan 2023-2029	Distance km / Direction - offshore wind farm area
Coastal	29.4 south
High Lying Agricultural	30.0 south
Low Lying Agricultural	38.5 south
Rolling Hills with Tree Belts	44.8 south

No published seascape character data is available for County Fingal.

Monaghan

The LCAs in County Monaghan, highlighted in the ZTV for the offshore project components, are listed in Table 27-12 below together with an indication of distance and direction to the Project and illustrated in Figure 27-6.

Table 27-12: Landscape Character Areas - Monaghan County Development Plan 2019-2025.

Landscape Character Areas - Monaghan County Development Plan 2019-2025	Distance km / Direction - offshore wind farm area
Carrickmacross Drumlin & Lowland Farmland	34 northwest
Drumlin and Upland Farmland of South Monaghan	48.8 northwest

Cavan

There is no published landscape character assessment for County Cavan. The County Development Plan identifies five areas which it describes as LCAs however, there is no published descriptive landscape character data. This accords with the CDP which clearly states that no landscape character assessment has been undertaken. The areas in County Cavan, highlighted in the ZTV for the offshore project components, are listed in Table 27-13 below together with an indication of distance and direction to the Project and illustrated in Appendix 27-1: Seascape, Landscape and Visual – Accompanying Graphics; Figure 27-6.

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Table 27-13: Landscape Character Areas - Cavan County Development Plan 2022-2028.

Landscape Character Areas - Cavan County Development Plan 2022-2028	Distance km / Direction - offshore wind farm area
Highlands of East Cavan	54 west
Lake Catchments of South Cavan	43 west

Designated landscapes

Louth

Table 27-14 below lists all of the designated landscapes in County Louth.

Table 27-14: Designated Landscapes Louth County Development Plan 2021-2027.

Designated Landscapes - Louth County Development Plan 2021-2027	Distance km / Direction - offshore wind farm area	Distance km / Direction – onshore substation Site	Distance km / Direction – onshore cable route (including landfall)
Area of Outstanding Natural Beauty (AONB) - Louth County Council – Local Authority Designation			
AONB 1 – Carlingford and Feede Mountains	9.1 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
AONB 2 – Clogherhead and Port Oriel	13 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Area of High Scenic Quality (AHSQ) - Louth County Council – Local Authority Designation			
AHSQ 1 – Feede Mountains and Cooley Area	8.8 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
AHSQ 2 Monasterboice	21 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
AHSQ 3 Boyne Valley / King Williams Glen	27 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
AHSQ 4 Collon Uplands	26 southwest	4.6 km south	Outside study area associated with onshore cable route
AHSQ 5 – Dunany	10 west	Outside study area associated with onshore substation	Onshore cable route located within this designated landscape
AHSQ 6 Ardee Bog.	31 west	3.7 west	Outside study area associated with onshore cable route

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Northern Ireland

The designated landscapes in Northern Ireland are listed in Table 27-15 below together with an indication of distance and direction to the Project.

Table 27-15: Designated Landscapes Northern Ireland.

Designated Landscapes - Northern Ireland	Distance km / Direction - offshore wind farm area
Areas of Outstanding Natural Beauty, National Designation, Northern Ireland	
Mournes Area of Outstanding Natural Beauty , Mournes AONB Authority.	8.4 north
Ring of Gullion Area of Outstanding Natural Beauty , Ring of Gullion AONB Authority	21.8 northwest
Strangford and Lecale Coast Area of Outstanding Natural Beauty , Strangford and Lecale AONB Authority	35.9 northeast

Meath

The designated landscapes in County Meath are listed in Table 27-16 below together with an indication of distance and direction to the Project.

Table 27-16: Designated Landscapes Meath County Development Plan 2021-2027.

Designated Landscapes - Meath County Development Plan 2021-2027	Distance km / Direction - offshore wind farm area
World Heritage Site - International Designation	
Brú na Bóinne	28.5 southwest
Landscape Conservation Area - Meath County Council – Local Authority Designation	
Tara Skyrne Area	48.5 southwest

Fingal

The designated landscapes in Fingal County are listed in Table 27-17 below together with an indication of distance and direction to the Project.

Table 27-17: Designated Landscapes Fingal County Development Plan 2023-2029.

Designated Landscapes - Fingal County Development Plan 2023-2029	Distance km / Direction - offshore wind farm area
Highly Sensitive Landscape – Fingal County Council – Local Authority Designation	
Balscadden	31 south
Blanchardstown North and South	57 south
Coast	29 south
Courtlyough	36 south
Garristown	39 southwest
Kinsealy	51 south
Lambay Island	44 south
Naul – Highly Sensitive Landscape	34 south
Skerries Islands	34 south
Special Amenity Area Order (SAAO)– Fingal County Council – Local Authority Designation	

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Designated Landscapes - Fingal County Development Plan 2023-2029	Distance km / Direction - offshore wind farm area
Howth SAO	55 south
High Amenity Zoning – Fingal County Council – Local Authority Designation applies to landscape character types of high landscape value	
Coastal Landscape Character Type	29.4 south

Monaghan

The designated landscapes in County Monaghan are listed in Table 27-18 below together with an indication of distance and direction to the Project.

Table 27-18: Designated Landscapes Monaghan County Development Plan 2019-2025.

Designated Landscapes - Monaghan County Development Plan 2019-2025	Distance km / Direction - offshore wind farm area
Area of Primary Amenity Value - Monaghan County Council – Local Authority Designation	
PA 2 Lough Muckno and Environs	43 northwest
Area of Secondary Amenity Value - Monaghan County Council – Local Authority Designation	
SA 4 – Mullyash Mountain	45 northwest
SA 8 – Billy Fox Memorial Park and Environs	54 west
SA 11 – Dromore River and Lake Systems	59 northwest
SA 12 – Lough Major and Environs	56 northwest
SA 14 – Lisanisk Lake	40 west
SA 15 – Lough Naglack	39 west
SA 16 – Rahans Lake	42 west
SA 17 – Lough Fea	44 west

Cavan

The designated landscapes in County Cavan are listed in Table 27-19 below together with an indication of distance and direction to the Project.

Table 27-19: Designated Landscapes Cavan County Development Plan 2022-2028.

Designated Landscapes - Cavan County Development Plan 2022-2028	Distance km / Direction - offshore wind farm area
Area of High Landscape Value - Cavan County Council – Local Authority Designation	
HL 3 Lough an Lea Mountain	51 west
Area of Special Landscape Interest - Cavan County Council – Local Authority Designation	
SL 1 Dún na Rí	45 west
Major Lakes and Lake Environs- Cavan County Council – Local Authority Designation	
ML 2 – Lough Sillan	54 west
ML 5 – Lough Skeagh	59 west

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Historic gardens and designed landscapes

Baseline data on designed landscapes was obtained from the NIAH Inventory of Gardens and Designed Landscapes and the Register of Parks, Gardens and Demesne of Special Historic Interest in Northern Ireland.

Table 27-20 provides details of the historic gardens and designed landscapes along the coast in County Louth. The sites have been selected based on their proximity to the coast and the potential for marine or coastal setting and views as a major and key characteristic of these designed landscapes. Table 27-21 below provides details of the parks, gardens and demesnes of special historic interest along the coast in South Down, Northern Ireland. The sites listed in both tables comprise only those coastal sites which are highlighted on the ZTV for the offshore wind turbines and for which potential effects could arise. Distance and directional data to the Project is indicated in both tables where relevant.

In regard to the onshore substation site, Table 27-19 below includes only those designed landscapes which are highlighted in the ZTV.

Table 27-20: Historic Gardens and Designed Landscapes Louth County.

Historic Gardens and Designed Landscapes for County Louth	Distance km / Direction - offshore wind farm area	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)
Catherines Grove	10.7 north	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Nootka Lodge	10.5 north	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Clermont	20.3 west	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Castle Bellingham	19 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Mount Pleasant	20.8 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Milestown House	18.2 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Maine Ho.	17.9 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Newtown House	19 south	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Rath House	17.8 south	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Ballymascanlan House	17.9 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Bellurgan House	17.9 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route

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Historic Gardens and Designed Landscapes for County Louth	Distance km / Direction - offshore wind farm area	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)
Drumcar	19.2 southwest	Outside Study Area associated with Onshore Substation	0.4 north
Charleville	21.4 southwest	Outside study area associated with substation	0.25 south
Glebe House, Millockstown	32.5 southwest	2.7 south	Outside study area associated with onshore cable route
Red House	29.5 southwest	2.4 northwest	Outside study area associated with onshore cable route
Dunany House	11.4 southwest	Outside study area associated with onshore substation	0.7 north

Table 27-21: Parks, Gardens and Demesne of Special Historic Interest, South Down, Northern Ireland.

Historic Parks and Gardens / Registered Parks and Gardens	Distance km / Direction - offshore wind farm area	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)
Mourne Park	14 north	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Ballyedmond	14 north	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
The Lodge (Kilbroney)	17.5 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Fairy Hill	17.6 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Rostrevor House	18 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Green Park	19 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Narrow Water Castle	21 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Forkhill House	26 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route

Landscape and seascape character of the site and study area for the onshore project components

The study areas for the onshore substation and onshore cable route (including landfall) are confined to County Louth and include parts of some of the LCAs in the published landscape character assessment (see Table 27-6) along with parts of the published SCTs in the Seascape Character Assessment (SCT's) in the SEA of the OREDP, Republic of Ireland (see Table 27-7).

The LCAs associated with the onshore substation and onshore cable route (including landfall) include Muirhevna Plain and Dunany Boyne Estuary Coast. The SCTs include SCT 4. Low lying coastal plain and

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estuarine landscape, low lying islands and peninsulas – Portmarnock to Dunany Point and SCT 8 Large Bay – Dundalk Bay, County Louth.

In addition to the published landscape character descriptions, contained in the Louth County Council Landscape Character Assessment, the following sections describe the local landscape character associated with each of the four published LCAs for County Louth as interpreted from field survey and focussing on the part of each LCA that falls within the Onshore Substation Study Area and the Landfall and Onshore Cable Route Study Area.

Landscape description of the proposed onshore substation site and study area.

The site for the onshore substation is located on the N33 road in the townland of Stickillin, approximately 3 km east of the town of Ardee within the Muirhevna Plain LCA. The site comprises the south eastern part of a large field in use for tillage, located adjacent and immediately north of the N33 road. The existing Woodland - Louth 220 kV overhead line crosses the western boundary of the onshore substation site extending in a north south direction. A pylon associated with this overhead line is located in the south western corner of the onshore substation site. The boundaries of the field in which the onshore substation site is located features mature hedgerow vegetation. A triangular stand of mature woodland occupies the western boundary of the field. The eastern boundary features a hard-surfaced area with large farm buildings and is accessed off the N33 by a narrow access road. This farm facility is bounded on all sides by mature hedgerows.

The majority of the landscape of the Onshore Substation Study Area falls within the Muirhevna Plain LCA (Table 27-6). An area of hill farmland located in the southern part of the study area falls within the Uplands of Collon, Monasterboice.

Muirhevna Plain LCA

The landscape of the Muirhevna Plain within the Onshore Substation Study Area comprises predominantly farmland with the exception of the built-up area of Ardee located to the west. The farmed field pattern comprises irregularly shaped fields of varying size, some of which feature pasture and some of which feature arable crops. In general, field boundaries are defined by mature hedgerows. Occasional small tracts of woodland are dispersed throughout including a relatively large area of woodland adjacent to the N33 road and east of the site. The N33 road extends in an east west direction linking the town of Ardee to the west with the M1 Motorway to the east. The N2 road extends in a northwest direction, through the town of Ardee, thereafter extending south towards Collon. The R171 and R125 regional roads cross the landscape north of Ardee and the R165 regional road extends across the south western part of the Onshore Substation Study Area from the N2. Minor roads cross the landscape following an east west direction for the most part and feature both individual and clusters of dwellings. The existing Woodland - Louth 220 kV overhead line crosses the landscape following a broadly north south direction.

The River Dee follows a sinuous course extending in a broadly east west direction north of the onshore substation site. The River Dee is bounded on both sides by hedgerows albeit fragmented in places. Isolated groups of mature trees and small areas of woodland feature along its banks especially in the vicinity of Scrogganstown.

The topography of the Onshore Substation Study Area comprises gently rolling farmland at an elevation of 50-70 m OD. The gently rolling farmed hills slope downwards towards the valley of the River Dee reaching 20 m OD at the valley floor.

Uplands of Collon and Monasterboice LCA

The landscape of the Uplands of Collon, Monasterboice LCA within the Onshore Substation Study Area comprises hill farmland in the vicinity of Millockstown, Hacklim and Roestown. The landscape features a field pattern of varying size and are usually enclosed by mature hedgerows. Occasional copses of mature woodland are dispersed throughout. Topography is generally more elevated than that associated with the uplands of Collon and Monasterboice. This landscape presents as a gentle but distinctive ridge reaching a maximum of 155 m OD. This higher ground affords occasional glimpse views of the farmland further north including the mountains associated with the Carlingford Peninsula and the Mourne further afield at locations where vegetation screens are absent.

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Landscape description of the onshore cable route and study area (including landfall).

The onshore cable route connects the landfall south of Dunany Point to the onshore substation site at Stickillin, east of Ardee on the N33. It comprises a 10 m wide corridor which extends for approximately 20.1 km from the onshore substation site eastwards along the N33 road towards the M1 Motorway at junction 14 in the townland of Charleville. Thereafter, the onshore cable route extends further east always adjacent and following a minor road through the townlands of Mullincross, Tullydonnell, Togher and Port before finally reaching the landfall location at the coast, south of Dunany Point.

The landscape of the Landfall and Onshore Cable Route Study Area is illustrated in Figure 27-5 and falls within the Muirhevna Plain LCA and the Dunany Boyne Estuary Coast LCA. In addition, a very small part of the Dundalk Bay Coast LCA, in the vicinity of Dunany falls within the study area (Table 27-6).

The site for the landfall is located at the coast within the Dunany Boyne Estuary Coast LCA. This also falls within SCT 4 Low lying coastal plain and estuarine landscape, low lying islands and peninsulas (Table 27-7).

Muirhevna Plain LCA

The landscape of the onshore cable route comprises mostly soft vegetated ground which extends along the edge of the N33 road and along minor roads further east. A number of crossing points are noted from west to east which include the crossing of the River Dee north of Kaigs Cross, the crossings associated with the M1 Motorway and Dublin to Belfast Rail Line at Charleville Bridge. At this location, the onshore cable route extends across the northern side of the motorway junction and across a relatively large field in use as tillage. Further east the onshore cable route crosses the River Dee for the second time at Drumcar Bridge, where a short section of the onshore cable route crosses pastoral farmland on either side of the river immediately north of the minor road. Thereafter, the onshore cable route crosses a number of small streams, east of Togher crossroads that include the Port Stream west of Clonmore and the Salterstown Stream.

The landscape surrounding the onshore cable route within the Muirhevna Plain comprises relatively flat to gently undulating farmland with field boundaries usually defined by mature hedgerow vegetation. Mature wooded vegetation lines the N33 road and comprises both native and non-native species likely to have been planted as part of the road scheme implementation works. The valley of the River Dee extends across the landscape in an east west direction running parallel and north of the N33 road. Further east, the landscape comprises gently undulating farmland usually featuring mature hedgerows. The River Dee extends east to its confluence with the White River which runs in a north south direction. A series of minor roads cross the landscape following a sinuous course meeting with other minor roads at Mullinacross Crossroads and at Tullydonnell.

Dundalk Bay Coast LCA

A very small part of the Dundalk Bay Coast LCA occurs within the Landfall and Onshore Cable Route Study Area. The areas include coastal farmland within the townland of Ardballan and the landscape and coastline in the townland of Dunany. The landscape around Dunany House features extensive areas of mature woodland which extends out to the coastline at Dunany Point.

Dunany Boyne Estuary Coast LCA

A small part of the Dunany Boyne Estuary Coast LCA falls within the Landfall and Onshore Cable Route Study Area and includes coastal farmed landscape in the vicinity of Togher, Nicholastown, Port and Roadstown.

The landscape of the onshore cable route follows a minor road which is usually lined with hedgerow vegetation, and follows a winding course through relatively flat farmland featuring mature hedgerows and small woodland groups. Occasional stands of mature trees are present along this route and it also intersects with other minor roads at junctions often featuring clusters of dwellings. The surrounding farmland features mature hedgerow vegetation. Closer to the coast, field sizes tend to be larger in the vicinity of Port and consequently hedgerow cover is scarcer. As a result, the landscape is partially open with glimpsed outlook towards the coast in a southwest direction and mountain skyline to the north associated with Carlingford and the Mournes.

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Low lying coastal plain and estuarine landscape, low lying islands and peninsulas – Portmarnock to Dunany Point (Fingal, Meath and Louth)

The proposed landfall location lies south of Dunany Point within the seascape character area identified as Low lying coastal plain and estuarine landscape, low lying islands and peninsulas – Portmarnock to Dunany Point (Fingal, Meath and Louth) (see appendix 27-1, Figure 27.7). The landfall location and onshore cable route is within a field at the southern boundary of Dunany Demesne and extends from the coast in a cutting through the low coastal cliff in a westerly direction, thereafter, following a minor road towards the nearby townland of Roadstown.

The landfall is located within a wider coastal setting comprised of a concave shaped stretch of coastline framed by the headlands of Dunany and Clogherhead. Sandy beaches extend along the length of this coastline and these are backed by low cliffs of sand dunes with low lying relatively flat coastal farmland further inland from the coastal edge. Outlook towards the expanse of the Irish Sea is framed by the headlands of Dunany, located 0.7 km north and Clogherhead located further afield to the south. Wide vistas with extensive sea views are available. The relatively flat and horizontal character of the landscape at the coast is such that the outlook to the sea is very much dominated by large areas of sky. Few features are present in the seascape apart from occasional sea vessels. Minor roads extend along and close to the coastline with occasional parking areas to facilitate enjoyment of sea views. Scattered individual dwellings are dispersed throughout the landscape at the coast. It is generally tranquil.

Large Bay – Dundalk Bay, County Louth

This seascape character type is associated with Dundalk Bay and extends from Dunany Point northwards to Ballagan Point at the tip of the Carlingford Peninsula. A small part of this SCT occurs within the Landfall and Onshore Cable Route Study Area. This comprises the rounded headland at Dunany the coastal edge of which features a sand and cobbly beach backed by a low cliff. Further inland, relatively low lying farmland is present together with linear woodland belts associated with Dunany House. St John The Baptist Church is a local landmark and focal point in the area. Expansive views towards the Irish Sea are available from this very horizontal coastline. Big skies dominate these views. Further afield, distant views are available to the south towards Clogherhead and to the north of Dundalk Bay and the mountain skyline of the Carlingford Mountains and Mourne Mountains further afield.

Designated landscapes in the study areas for the onshore project components

The study areas for the onshore substation and onshore cable route (including landfall) includes parts of a number of designated landscapes in County Louth. These include AHSQ 4 Collon Uplands, AHSQ 6 Ardee Bog and AHSQ 5 Dunany (Table 27-14).

In the absence of published descriptions of these designated areas, the following sections describe each of these designations as interpreted from field survey and focussing on the part of each designation that falls within the study area for the onshore substation and onshore cable route (including landfall).

Onshore Substation Study Area

Part of AHSQ 4 Collon Uplands and part of AHSQ 6 Ardee Bog occur within the Onshore Substation Study Area. Each of these two designated landscapes are described as a whole with an indication of the part that occurs within the study area as follows.

AHSQ 4 Collon Uplands

The Collon Uplands comprises the hill farmland in the vicinity of Mount Oriel and Collon with field boundaries clearly defined by hedgerows, many of which are mature and feature mature trees. Mount Oriel is the highest point within this area at 251 m OD and is a distinctive landmark, identifiable also by the presence of a telecommunications mast, close to the summit. Further west in the vicinity of Belpatrick, a small wind farm is present comprising of four wind turbines. The Woodland - Louth 220 kV overhead line crosses this landscape west of Mount Oriel. Minor roads cross the landscape, some following a rectilinear pattern and some following a winding pattern. A very small part of AHSQ 4 Collon Uplands occurs within the Onshore Substation Study Area. This comprises a small area of farmland in the vicinity of Funshog and features mature hedgerow and woodland vegetation.

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AHSQ 6 Ardee Bog

Ardee Bog comprises a relatively flat bog landscape located west of Ardee. A minor road passes through this area extending in an east west direction bisecting it into two halves. The northern half comprises farmland with small linear field sizes defined by low hedgerows somewhat fragmented in places. The southern half comprises bog and scrub with little or no apparent field patterns. Dwellings are isolated and few in number. The eastern part of this AHSQ falls within the Onshore Substation Study Area.

Landfall And Onshore Cable Route Study Area

Only one designated landscape, AHSQ 5 Dunany, occurs within the study area for the onshore cable route.

AHSQ 5 – Dunany

AHSQ 5 Dunany comprises a large area of coastal farmland located east of the R166 regional road. It extends from Salterstown in the north to Glebe East, near Clogherhead in the east. Dunany comprises a relatively flat coastal farmed landscape with field boundaries usually defined by hedgerows often of low height although some featuring mature trees. Small minor roads cross the landscape and scattered isolated dwellings are dispersed throughout. The landscape overlooks the coast including the Irish Sea and the mountains further north associated with Carlingford and the Mourne further afield. The Landfall and Onshore Cable Route Study Area extends in an east west direction through the middle of this designated landscape, specifically the townlands of Togher, Boycetown, Port, Mitchelstown and Dunany.

27.7.3 Visual amenity

Visual receptors comprise “the different groups of people who may experience views of the development” (GLVIA3, 2013 - para 6.3). The baseline, presented below, includes the Designated Views and Prospects and Scenic Routes of relevance from the Louth CDP. In addition, the desktop baseline study together with the Zone of Theoretical Visibility and field surveys have informed the selection of viewpoints for inclusion in the visual impact assessment for the Project.

Designated Views and Prospects – Louth CDPTable 27-22 below provides details of views and prospects documented in the Louth CDP 2021-2027. The table lists views and prospects that are highlighted in the ZTV and for which potential effects could arise. Approximate distance, in km, to the Project is provided. The location of the view / prospect relative to the Project is also indicated, for example, NW means the view / prospect is located northwest of the Project.

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Table 27-22: Views and Prospects Louth County Development Plan 2021-2027.

ID	Location	Direction	Description	Distance km / Direction - offshore wind farm area	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)
VP 3	Clermont Cairn (RTE Mast)	Clermont Cairn; The site is accessed from the top of Black Mountain at the RTE Mast and carpark.	Panoramic views to the north, south, east and west of Cooley mountains, Mourne Mountains and beyond. Extensive views south of Dundalk, Dundalk Bay and surrounding countryside.	21 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 5	Carlingford Lough	Carlingford Lough; Viewpoint is along a section of the main road on the Greenore road (R173) between Carlingford and Greenore.	Views north of Carlingford in the middle distance and with the setting of Slieve Foye to the rear. In the foreland across Carlingford Lough, views of the Mourne Mountains in Northern Ireland.	10 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 6	Slieve Foye	Viewpoint at the highest point of Mountain park outside of the Carlingford Settlement Limit.	View of the settling of Carlingford along the coastline and panoramic views of the Lough towards Northern Ireland.	12 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 7	Spelickanee	Viewpoint along section of road where the local road splits south	180 degree views of the mountains and valley within the Cooley peninsula.	16 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 8	Glenmore - mountains and valley	Slieve Halpen; Views access along the main road after forested area between Mutlaghattin and Annaloughan Mountain.	Panoramic views down through the valley towards Slieve Foye and, Barnavave and to the south Slieve Halpon.	14.5 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 9	Barnavave and Carlingford Mountain	At Ballygoly townland, views are taken from the bridge along the main road.	Middle distance views to the northeast of the back of Slieve Foye and Barnavave and Carlingford Mountain. A dwelling at the crossroads at this site causes a certain amount of obstruction to the southeast views.	13.5 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route

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ID	Location	Direction	Description	Distance km / Direction - offshore wind farm area	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)
VP 13	Faughart Hill	Faughart Hill. Views recorded at the top of the Hill at the parking bay adjacent to the graveyard.	Panoramic views across north, south, east and west to include views of the Cooley Mountains and valley with on/off rural housing at the base of the base. Views of Dundalk to the south, low-densities one-off houses located at base of hill towards Dundalk. Views to the east have been disturbed by the erection on a wind turbine adjacent to the view-point.	22.5 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 15	Views of Castle Roche	Views of Castle Roche, views recorded at several points along adjoining local road L-7112-0 and L-8112-20.	Views of Castle Roche are available along adjoining local roads. Views are dominant along L-7112-0 and L-8112-20 of the elevated Castle site and its dominant skyline presence.	28.5 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 16	Hackballscross	Hackballscross- Views recorded at the cross road at Hackballscross.	Views of mountains in the far distance to the northeast of the site. In the short term the views contain mature trees and hedges and it is more the skyline which is of importance at the site.	29.5 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 17	Killin Golf Course	Views recorded at junction past Killin Golf course toward Dundalk.	Uninterrupted panoramic views of Cooley Mountains in the foreground separated from the road by rolling rural landscape.	25 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP18	Dromiskin	sea views across to Dundalk, Cooley and Mourne Mountains	Views of sea across to Cooley and Mourne Mountains and including Dundalk Bay.	17.4 west	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP19	North of Annagassan	Anagassan Village, beach strip between Annagassan Pier and lands to the north of the Saltings,	Coastal beach strip, approximately 250 m long, providing uninterrupted sea view looking north across Dundalk Bay towards the Cooley Mountains and the Mourne Mountains.	16.6 west	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP20	Salterstown	Salterstown, along Scenic Route No. 18 northernmost end of local secondary road L6220.	Coastal beach strip, providing uninterrupted sea view looking north across Dundalk Bay towards the Cooley Mountains and the Mourne Mountains.	14.1 west	Outside study area associated with onshore substation	Outside study area associated with onshore cable route

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ID	Location	Direction	Description	Distance km / Direction - offshore wind farm area	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)
VP21	Corstown	Draghanstown, northernmost end of local secondary road L6220.	Uninterrupted sea view looking north cross Dundalk Bay towards the Cooley Mountains and the Mourne Mountains.	12.1 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP22	Lurganboy	Lurganboy, beach strip along Scenic Route No. 18 adjacent to public carpark.	Coastal beach strip, providing uninterrupted panoramic sea view. View to north along coast towards Dunany Point. View to the south-east towards Clogherhead Village, Almondstown, Clogherhead and Clogherhead Harbour.	13.4 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 23	Callystown to Clogherhead	Garrolagh, 300 m north of T-junction of L2278 with L6279	Extensive panorama towards the coast across large working landscape. Dunany point visible to the north-east, Lurganboy coastline in the middle distance and Clogherhead Village and Clogherhead to the south-east. Some modern housing and agricultural buildings visible in the middle distance.	17.2 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 24	Dardisrath	Towards coast and Clogherhead Dardisrath along L6281, 800 m north of Barnhill Crossroads	Partial coastline view across working landscape, interrupted by some modern housing and agricultural buildings. Ganderstown and Port Oriel partially visible to the south-east.	17.2 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 25	Brownstown	Southern side of L6286, opposite Fieldstown/Brownstown	Southwards over AHSQ towards Drogheda. Long distance view to south-east towards Drogheda Town, Tom Roes Point and Premiere Periclaise. Open grazing fields and hedge lines in foreground and middle-distance. Limited modern housing visible in the left foreground.	22 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 26	Newtown Monasterboice	Newtown Monasterboice along L6293 on high ground 260m north of Monasterboice Round Tower	View south-west across open working field toward Monasterboice Round Tower. Upper portion of tower visible behind copse of mature deciduous native trees.	25 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route

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ID	Location	Direction	Description	Distance km / Direction - offshore wind farm area	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)
VP 29	Waterunder Plateau	View from M1 Retail Park, M1, Motorway bridge	View south from N51 between Mell Roundabout and Motorway Roundabout Junction 10. Drybridge Escarpment. View of Ravine which was the route of the Williamite army from their camp at Tullyallen Hill to cross the Boyne river.	26.5 south	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 30	Mount Oriel	Belpatrick townland along L5286, 600m west of Mount Oriel.	Uninterrupted view to the northeast towards Mullacapple. Valley view incorporating open working fields, native hedgerows, wooded areas in middle distance and tree-topped drumlins in right middle-distance. Mount Oriel to right foreground. Absence of any visual residential or agricultural structures.	30 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 31	N2 Funshog	Junction of N2 with L2253	View eastwards from N2 junction with L2253 of tree-lined avenue of mature deciduous trees. Avenue is largely interrupted and extends to 600 metres.	28.3 southwest	4.8 south	Outside study area associated with onshore cable route
VP 32	Millockstown	Millockstown at junction of L5257 with L5258	180 degree panoramic view southwards across Millockstown towards Roestown, Funshog and Mount Oriel. Landscape contains large open fields, native hedgerow, some modern housing and agricultural buildings visible in the middle distance. 3no. Wind turbines visible in the distance to the south-west.	28.2 southwest.	3.0 south	Outside study area associated with onshore cable route
VP 33	Townparks	Townparks at westernmost end of Scenic Route No.17	View to North flat open field, infill site between two bungalows. New two storey house in middle background. View to South. Flat open field with backdrop of mature deciduous trees. View of Ardee Bog.	33 west	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VP 34	Analog	Analog, 1.5km west of VP32 along the N2	Open landscape view north-west across towards Hunterstown and Ardee Town. Landscape contains large open fields, native hedgerow, limited modern housing and agricultural buildings visible in the	30 southwest.	4.5 south	Outside study area associated with onshore cable route

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ID	Location	Direction	Description	Distance km / Direction - offshore wind farm area	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)
			middle distance. 3-phase Pylon visible in right foreground.			
VPCL1	Clogherhead	Clogherhead Harbour	Uninterrupted sea view looking north-west along the coast towards Dunany Point. Distant views to the north towards the Cooley Mountains and the Mourne Mountains.	13.3 southwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VPC 1	Carlingford	King Johns Castle	Views east, south and west those of Carlingford Lough, towards Carlingford and Slieve Foye.	12.3 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VPC 2	Carlingford	Taaffeys Castle	Views northeast across Carlingford Lough and towards Northern Ireland and the Mourne Mountains from Taaffeys Castle.	12 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VPC 3	Carlingford	Holy Trinity Heritage Centre Church	Views north and east views towards the Bay and Carlingford Lough.	12 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VPC 4	Carlingford	Dominican Friary	View protected into the Dominican Friary with regard to those lands zoned adjacent for town centre use.	11.7 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
VPC 5	Carlingford	The Coast and Harbour	Views South towards Carlingford Village and Slieve Foye.	12 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route

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27.7.4 Designated scenic routes

Table 27-23 below provides details of Scenic Routes documented in the Louth CDP 2021-2027. The table lists scenic routes that are highlighted in the ZTV and for which potential effects could arise. Approximate distance, in km, to the Project is provided. The location of the scenic route relative to the Project is also indicated, for example, NW means the scenic route is located northwest of the Project.

Table 27-23: Scenic Routes Louth County Development Plan 2021-2027.

Route	Distance / Direction - offshore wind farm area c. km	Distance / Direction – onshore substation site c. km	Distance / Direction – onshore cable route (including landfall) c. km
Faughart Hill, Faughart Upper	22 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Ravensdale Road - Rockmarshall to Drumad	15.5 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Deerpark Road	19 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Dromad via N1, Broughattin-Doolargy	19.3 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Annaverna	19.7 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Doolargy	18.5 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Jeninstown - Minor and Hill	15.5 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Ballymakellett	17.6 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Jeninstown to Piedmount	11.6 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Jeninstown to Omeath via Windy Gap	15.3 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Piedmount -Benagh-Spelickanee	11 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Bush-Windy Gap-Edentober	8 northwest	Outside study area associated with onshore substation	Outside study area associated with onshore cable route
Bush-Carlingford including Commons	8.7 northwest	Outside Study Area associated with Onshore Substation	Outside study area associated with onshore cable route
Greenore-Carlingford-Omeath	8.5 northwest	Outside Study Area associated with Onshore Substation	Outside study area associated with onshore cable route

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Route	Distance / Direction - offshore wind farm area c. km	Distance / Direction – onshore substation site c. km	Distance / Direction – onshore cable route (including landfall) c. km
Coast Road-Whitestown-Ballagan-Ballytrasna	5.2 north	Outside Study Area associated with Onshore Substation	Outside study area associated with onshore cable route
Coast Road, Dromiskin	17.4 west	Outside Study Area associated with Onshore Substation	Outside study area associated with onshore cable route
Townparks Ardee	30.1 west	3 west	Outside study area associated with onshore cable route
Catlebellingham-Annagassan-Clogherhead-Termonfeckin	12 west	Outside Study Area associated with Onshore Substation	The onshore cable route extends along this route from Mitchelstown to Port.
Baltray-Queensborough-Beaulieu	21.4 southwest	Outside Study Area associated with Onshore Substation	Outside study Area
Slane Road, Townley Hall	27.2 southwest	Outside Study Area associated with Onshore Substation	Outside Study Area
King William's Glen	30 southwest	Outside Study Area associated with Onshore Substation	Outside Study Area
Mount Oriel (Collon-Belpatrick)	29.3 southwest	Outside Study Area associated with Onshore Substation	Outside Study Area

27.7.5 Viewpoint locations

Visual receptors that have been considered within this assessment include, but are not limited to, the following:

- Residents within settlements;
- Residents of individual dwellings or clusters of dwellings;
- Recreational visitors to the coastline;
- Recreational visitors to elevated inland, elevated locations where uninterrupted views are available;
- Users of public rights of way (walking routes) or cycle routes;
- People at places of work;
- Visitors or residents at caravan parks;

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- Road users and rail passengers; and
- Viewers at sea including recreational boat users, fishermen and people using water borne transport.

Figure 27-2 and Figure 27-4 illustrate the ZTV of the onshore substation and the offshore wind turbines' array. The ZTV and field survey informed the selection of viewpoints for the visual impact assessment which are documented in the Table 27-24 below. The viewpoint locations used within this SLVIA are illustrated in Figure 27-9 to Figure 27.10 inclusive.

Viewers that would potentially be affected by the Project include residents of settlements and recreational visitors at or near the coast. The main settlements include Dundalk, Blackrock, Castlebellingham, Annagassan and Clogherhead in County Louth. In Northern Ireland, these include Cranfield and Kilkeel. Further afield, potential effects on settlements would include Bettystown, Laytown, Balbriggan and Skerries. Recreational visitors to the coast within the Study Area associated with the offshore elements of the project (i.e. Offshore Wind Turbine and Offshore Substation Study Area) would potentially be affected. These would include visitors travelling by car along coastal roads and those on foot in the Carlingford Mountains and Mourne Mountains. Commuters and visitors travelling along road and rail users could also potentially be affected by the Project. These include the Dublin to Belfast railway line, the M1 Motorway and Regional Roads (including R132, R166, R215, R173, R175, A2, B25 and B27).

Details of the viewpoints selected for assessment are presented in Table 27-24 below. 18 viewpoints have been selected to represent available views of the offshore elements (offshore wind turbine array, OSS), whilst 4 viewpoints have been selected to represent views of the onshore substation. A description of the existing views is presented together with an approximate distance in km and direction from these onshore components of the Project.

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Table 27-24: Viewpoint locations.

ID	Location	Landscape Type	Landscape Designation	Scenic Route/ View designation	Viewer Type	Description of Existing View	Distance km / Direction – closest turbine	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)	Illustrated in photomontage
Vp 01	Summit of Slieve Binnian	Mourne Mountains, Northern Ireland	Mourne AONB		Recreational visitors.	Expansive views are available of coastal farmland in South Down, Carlingford Lough and the Irish Sea from this mountaintop location.	22.36	Outside study area	Outside study area	Offshore Wind Turbines
Vp 02	Kilkeel, at Mourne Esplanade	Kilkeel Coast, Northern Ireland	Mourne AONB		Recreational users of public open space. Residents of dwellings.	Expansive views are available of the Irish Sea and coastline at Kilkeel with public open space in the foreground. Some dwellings are visible to the right of the viewer.	12.6	Outside study area	Outside study area	Offshore Wind Turbines
Vp 03	Cranfield picnic area and caravan site	Kilkeel Coast, Northern Ireland	Mourne AONB		Residents of dwellings. Recreational visitors road users.	Expansive views are available of the Irish Sea and Carlingford Lough with the beach at Cranfield in the foreground. An Artillery Fort is clearly visible in the foreground at sea. Part of the Carlingford Peninsula is visible to the right of the viewer where this meets the sea at Ballagan Point.	9.4	Outside study area	Outside study area	Offshore Wind Turbines

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ID	Location	Landscape Type	Landscape Designation	Scenic Route/ View designation	Viewer Type	Description of Existing View	Distance km / Direction – closest turbine	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)	Illustrated in photomontage
Vp 04	Barnavave, on Carlingford Loop, Carlingford Mountains.	Carlingford Lough Mountains including West Feede Uplands, Co. Louth	AONB 1 Carlingford and Feede Mountains, Co. Louth	-	Recreational visitors (Hillwalkers)	Panoramic views are available from this elevated location of Carlingford lough and the Irish Sea together with islands with the coastal farmed landscape of the Carlingford Peninsula in the foreground. The skyline of the Mourne Mountains is clearly visible in the distance overlooking the farmed coastline (South Down) on the northern side of Carlingford Lough. Industrial facilities in the vicinity of Greenore are clearly visible as small elements in the panoramic view.	12.38	Outside study area	Outside study area	Offshore Wind Turbines
Vp 05	Templetown – public car park at Shelling Beach	Cooley Lowlands & Coastal Area, Co. Louth	-	-	Recreational visitors to beach / coast amenity.	Panoramic views are available of Dundalk bay and the Irish Sea with the beach at Templetown in the foreground. Dunany Point and the headland of Clogherhead is visible further afield. In the far distance, the coastline further	6.2	Outside study area	Outside study area	Offshore Wind Turbines

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ID	Location	Landscape Type	Landscape Designation	Scenic Route/ View designation	Viewer Type	Description of Existing View	Distance km / Direction – closest turbine	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)	Illustrated in photomontage
						south is visible only in weather conditions which afford visibility at the distances required.				
Vp 06	Giles Quay – Car park viewing point	Cooley Lowlands & Coastal Area, Co. Louth	-	-	Recreational visitors to the coast.	Views are available of Dundalk Bay with the beach at Giles Quay in the foreground. Further afield views are available of the coastline further south including Dunany Point and Clogherhead.	11.27	Outside study area	Outside study area	Offshore Wind Turbines
Vp 07	Soldier's Point	Dundalk Bay Coast, Co. Louth	-	-	Recreational visitors.	Views are available of Dundalk Harbour at the mouth of the Castletown River with dwellings and woodlands in the foreground. Further afield, the Cooley Peninsula and associated mountains and the Mourne Mountains are clearly visible.	18.99	Outside study area	Outside study area	Offshore Wind Turbines
Vp 08	Blackrock Promenade (seating area)	Dundalk Bay Coast, Co. Louth	-	-	Recreational visitors. Residents of dwellings.	Panoramic views of Dundalk bay and the Irish Sea are available with the beach in the foreground. The Irish	18.09	Outside study area	Outside study area	Offshore Wind Turbines

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ID	Location	Landscape Type	Landscape Designation	Scenic Route/ View designation	Viewer Type	Description of Existing View	Distance km / Direction – closest turbine	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)	Illustrated in photomontage
					Individuals at work (in local shops).	Sea is framed by the headlands associated with the Cooley Peninsula (and associated mountains) and Clogherhead. The Mourne Mountains are visible further afield.				
Vp 09	Seabank Layby	Dundalk Bay Coast, Co. Louth	-	Scenic Route No. 16 – Coast Road, Dromiskin. CDP VP 18 - Dromiskin-sea views across to Dundalk, Cooley and Mourne Mountains	Recreational visitors to the coast. Road users.	Expansive views are available of Dundalk Bay and The Irish Sea with beach in the foreground. The view is framed by the headlands associated with the Cooley Peninsula and Clogherhead. The Cooley Mountains are clearly visible together with the Mourne Mountains further afield.	17.7	Outside study area	Outside study area	Offshore Wind Turbines
Vp 10	Salterstown – at layby viewing point	Dundalk Bay Coast, Co. Louth	AHSQ 5 Dunany, Co. Louth	Scenic Route 18 - Castlebellingham-Annagassan-Clogherhead-Termonfeckin CDP VP20 - Salterstown -	Recreational visitors to the coast. Road users.	Panoramic views are available of Dundalk Bay and The Irish Sea with beach in the foreground. Further afield, The Cooley Peninsula and associated mountains are	13.89	Outside study area	Outside study area	Offshore Wind Turbines

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ID	Location	Landscape Type	Landscape Designation	Scenic Route/ View designation	Viewer Type	Description of Existing View	Distance km / Direction – closest turbine	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)	Illustrated in photomontage
				sea views across to Dundalk Bay towards Cooley and Mourne Mountains		visible. The Mourne Mountains are also visible in the distance.				
Vp 11	R170 Regional Road at Mullacurry	Uplands of Collon, Monasterboice, Co. Louth.	-	-	Residents of dwellings. Road users.	The expanse of the Irish Sea is clearly visible with rolling farmland and mature hedgerow vegetation in the foreground. The mountain skyline associated with the Cooley Peninsula and the Mourne Mountains is visible further afield.	25.74	2.7	Outside study area	Offshore Wind Turbines
Vp 12	Lurganboy Beach	Dunany Boyne Estuary Coast, Co. Louth	AHSQ 5 Dunany, Co. Louth	Scenic Route 18 - Castlebellingham-Annagassan-Clogherhead-Termonfeckin. CDP VP 22 - Lurganboy - sea views across to Dundalk Bay towards Colley and Mourne Mountains	Recreational visitors. Road users.	The vast expanse of The Irish Sea is visible with a small watercourse in the foreground. Clogherhead is clearly visible to the right of the viewer. Dunany Point is clearly visible to the left of the viewer along with The Cooley Peninsula and associated mountains and the	13.69	Outside study area	Outside study area	Offshore Wind Turbines

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ID	Location	Landscape Type	Landscape Designation	Scenic Route/ View designation	Viewer Type	Description of Existing View	Distance km / Direction – closest turbine	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)	Illustrated in photomontage
						Mourne Mountains further afield.				
Vp 13	Grangebelle w Tower	Muirhevna Plain	-	-	Road users.	Panoramic views are available of the Irish Sea with Dunany Point in the distance. The Cooley Peninsula and associated mountains is visible together with part of the skyline of the Mourne Mountains in the distance.	17.19	Outside study area	Outside study area	Offshore Wind Turbines
Vp 14	Clogherhead	Dunany Boyne Estuary Coast, Co. Louth	AONB 2 Clogherhead and Port Oriel, Co. Louth	-	Recreational visitors.	Panoramic views are available of the Irish Sea Clogherhead in the foreground., Dunany Point is also visible further afield. The Cooley Peninsula and associated mountains and the Mourne Mountains are also visible in the distance.	13.89	Outside study area	Outside study area	Offshore Wind Turbines
Vp 15	Mellifont Abbey Gardens	Uplands of Collon, Monasterboice, Co. Louth.	AHSQ 4 – Collon Uplands, Co. Louth	-	Recreational visitors.	Open views are available of the coast and the Irish Sea with coastal farmland in the foreground. The view is framed by mature trees within Mellifont	28.00	Outside study area	Outside study area	Offshore Wind Turbines

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ID	Location	Landscape Type	Landscape Designation	Scenic Route/ View designation	Viewer Type	Description of Existing View	Distance km / Direction – closest turbine	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)	Illustrated in photomontage
						Abbey Gardens. The Cooley Peninsula and associated mountains is visible together with part of the skyline of the Mourne Mountains in the distance.				
Vp 16	Termonfeckin Beach	Dunany Boyne Estuary Coast, Co. Louth	-	-	Recreational visitors.	Panoramic views are available of the Irish Sea with Termonfeckin Beach in the foreground. Clogherhead is clearly visible to the left of the viewer along with part of the skyline of The Mourne Mountains and Cooley Peninsula further afield. The coastline and islands further south are visible to the right of the viewer.	17.98	Outside study area	Outside study area	Offshore Wind Turbines
Vp 17	Bettystown Beach, Co. Meath	Coastal Plains, Co. Meath	-	-	Recreational visitors.	Expansive views are available of the Irish Sea with Bettystown Beach in the foreground. Further afield, Clogherhead is clearly visible to the left of the viewer. The skyline of the	23.61	Outside study area	Outside study area	Offshore Wind Turbines

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ID	Location	Landscape Type	Landscape Designation	Scenic Route/ View designation	Viewer Type	Description of Existing View	Distance km / Direction – closest turbine	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)	Illustrated in photomontage
						Carlingford Peninsula and associated mountains and the Mourne Mountains is visible in the distance.				
Vp 18	Skerries Headland	Coastal – Highly Sensitive Landscape, Fingal County	Highly Sensitive Landscape, Fingal County		Recreational visitors	Panoramic views are available of the Irish Sea with rocky shoreline in the foreground and individual isolated buildings. Further afield, the coastline further north including Balbriggan and hill farmland is visible. Distant views are available of the Carlingford Peninsula and associated mountains and part of the skyline of the Mourne Mountains during weather which affords clear visibility.	33.79	Outside Study Area	Outside Study Area	Offshore Wind Turbines
Vp 19	Minor Road to Richardstown	Muirhevna Plain, County Louth	-	-	Residential receptors. Road users.	-	-	0.685	-	Onshore Substation
Vp 20	St Nicholas Church ruin, Stabannan	Muirhevna Plain, County Louth	-	-	Residential receptors. Recreational and road users.	-	-	3.76	-	Onshore Substation

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ID	Location	Landscape Type	Landscape Designation	Scenic Route/ View designation	Viewer Type	Description of Existing View	Distance km / Direction – closest turbine	Distance km / Direction – onshore substation site	Distance km / Direction – onshore cable route (including landfall)	Illustrated in photomontage
Vp 21	Roodstown, L1212	Muirhevna Plain, County Louth			Road users. Recreational receptors.		1.6			Onshore Substation
Vp 22	Riverstown, L1212	Muirhevna Plain, County Louth			Residential receptors. Road users.		1.57			Onshore Substation

27.7.6 Future baseline scenario

The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (hereafter the EIA Regulations 2018) require that “a description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge” is included within the EIAR.

In the event that the Project is not constructed, an assessment of the future baseline conditions has been carried out and is described below.

The data contained in landscape character assessments, and any future landscape strategies as part of the development plan in County Louth and other counties in the Study Areas, is likely to have some influence on planning decisions concerning a wide range of development types such as housing, renewable energy, industrial and commercial development and commercial coniferous forestry.

Even taking this into account, change to the landscape baseline of the Study Areas is, however, likely to occur on a very gradual basis over many years. Such changes may result in a future baseline comprised of slightly expanded towns and settlements along with an increase in some limited industrial and commercial developments. Furthermore, the influence of climate change, although gradual, could change landcover and habitat giving rise to small changes to landscape character. Such changes are unlikely to be of a scale that would fundamentally alter the baseline landscape character documented to date in the baseline for the Project.

27.7.7 Data validity and limitations

Published baseline data

The assessment of effects on landscape and seascape was undertaken with reference to available published data on landscape and seascape character. In this regard, data on seascape character was only available for Northern Ireland. No published seascape character data was available for the counties of Louth, Meath and Fingal. In this regard, the assessment was informed by the seascape character assessment developed for the SEA of the OREDP in the Republic of Ireland.

Factors likely to affect visibility

The sea is often regarded as a flat surface, lacking in physical structures that could prevent distant views of remote objects. However, there are a variety of other factors that are likely to affect the ability to experience distant views at sea. These include the acuity of the human eye, the effects of curvature of the earth and refraction of light, as well as meteorological and metocean conditions.

Acuity of the eye, the effects of the curvature of the earth and refraction of light

There are limitations to the size of an object and its distance from the viewer that can be readily perceived by the human eye. These limitations are set out in the various seascape and wind farm guidance (onshore and offshore) used for this assessment.

The influence of weather

Changing weather patterns and local climatic conditions will influence the visibility of the Project in terms of extent of view, colour and contrast of wind turbines and number of wind turbines visible, and thus the perceived visual impact. There will be periods of low visibility as well as periods of high visibility depending on weather conditions which include humidity, temperature, presence or absence of air pollution, wave action resulting in sea spray, mist, fog, light reflection off water and the influence of sunlight upon the view.

Records held by Met Eireann (Ireland Meteorological Office) are presented in Table 27-25 below. This is based on climate averages calculated over a 30 year period of consecutive records. The period of 30 years

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is deemed to be long enough to smooth out year to year variations. Met Eireann references 1981 to 2010 as the baseline period for day-to-day weather and climate comparisons.²

Table 27-25: Met Eireann Climate Data 1981-2010 at Dublin Airport.

Location	Relative Humidity % at 9am / 3pm	Mean number of days with no sun	Mean number of days with more than 5 mm rain	Mean number of days with fog.
Dublin Airport	83 / 73.3	54.6	42	41.5

27.8 Key parameters for assessment

27.8.1 Project design parameters

The project description is provided in volume 2A, chapter 5: Project Description. The section 'Potential impacts' below outlines the likely impacts associated with the Project and Table 27-26 outlines the project design parameters that have been used to inform the assessment of potential impacts of the construction, operational and maintenance and decommissioning phases of the Project on seascape, landscape and visual impact.

The final height of each WTG will be confirmed following detailed geotechnical investigations and analysis of ground conditions (see design flexibility details in chapter 5: Project Description (volume 2A)). For the purposes of the assessment presented in section 27.10, the maximum height of WTG has been considered to ensure the potential for maximum impact is assessed. Should the WTGs be less than those specified, then the potential for effects will be less than what is outlined in section 27.10.

The final location for each WTG and OSS will also be confirmed following detailed geotechnical investigations and analysis of ground conditions. For the purposes of the assessment presented in section 27.10, the proposed layout as presented in chapter 5: Project Description (volume 2A) has been assessed. Should the locations of the WTG and OSS require adjusting within a 50 m radius (should an obstruction occur during installation), this will not result in changes to the layout that would amend the assessment presented in section 27.10.

The final location of the TJB will be confirmed on examination of the electrical and thermal properties of the selected offshore export cable and the ground conditions at the landfall. For the purposes of the assessment presented in section 27.10, both options presented in chapter 5: Project Description (volume 2A) result in the same potential for short duration, temporary impacts on seascape, landscape, and visual amenity during the construction and decommissioning phases only which is associated with the presence of machinery on site during each of these phases.

The final design for the type and siting of outdoor equipment within the onshore substation will be confirmed on procurement of the equipment prior to construction. The final design of equipment at the onshore substation will not result in changes to the assessment presented in section 27.10 for the operational and maintenance phase.

Potential impacts

Table 27-26 to Table 27-28 below set out the main impacts during the construction, operational and maintenance, and decommissioning phases of the Project on landscape, seascape and visual amenity resources considered within this assessment. This chapter has specifically considered direct and indirect impacts of the Project on the following:

- Construction works associated with:

² <https://www.met.ie/climate/30-year-averages>

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- the onshore substation;
 - the onshore cable route;
 - the landfall location and the offshore cable corridor; and
 - the installation of wind turbines and the offshore substation (OSS).
- Operational effects associated with:
 - the onshore substation; and
 - 25 wind turbines and one OSS.
 - Decommissioning works associated with:
 - the onshore substation;
 - the onshore cable route;
 - the landfall location; and
 - wind turbines, the OSS and cables.

Site lighting during the construction, operational and maintenance, and decommissioning phases will only operate when required and will be directional to avoid unnecessary illumination. The night time effects of lighting during the operational and maintenance phase of the OSS and wind turbines will be viewed in the context of the lighting associated with surrounding or intervening built form, lighting associated with vehicle corridors, offshore navigational lighting and lighthouses and beacons dependent upon the viewer location and direction of view.

The nighttime effect of lighting during the operational and maintenance phase of the onshore substation will generally be viewed as a distinct, new feature in the landscape, though viewed within a night time view which includes lights associated with the built form of Ardee, surrounding scattered residential properties, lighthouses on coastal promontories and offshore navigational aids and beacons.

The impacts are discussed further in section 27.10.

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Table 27-26: Project design parameters used for the assessment of potential construction impacts on landscape, seascape and visual amenity.

Potential Impact	Direct/Indirect	Project design parameters	Justification
Construction phase (15 months): Effects of offshore cable corridor and landfall location on Landscape and Seascape Resources and Visual Amenity			
<p>Construction works associated with the offshore cable corridor and landfall location on the following:</p> <ul style="list-style-type: none"> Undesignated Landscape Resources; Undesignated Seascape Resources; Designated Landscape Resources; Designated Seascape Resources; and Visual Amenity. 	Direct and Indirect Effects	<ul style="list-style-type: none"> Temporary presence of specialised sea vessels for construction activities associated with the offshore cable corridor. Temporary works associated with the connection of the offshore cable corridor to the onshore cable at the landfall location south of Dunany Point. Temporary presence of the landfall construction compound and landfall construction machinery and related activities including: <ul style="list-style-type: none"> Transition Joint Bay(s) (TJB) (i.e. two options are proposed, one of which will be constructed) and activities associated with the excavation for concrete chamber; Open trench installation works and related machinery and equipment including drilling rig; and Activities associated with topsoil removal and storage and importation of stone and tarmac to surface the construction compound area. Temporary presence of specialised sea vessels or installation tools such as winches, ploughs etc. for the open trench installation at the landfall. 	<p>The Project will use one 220 kV High Voltage Alternating Current (HVAC) transmission cable to connect the OSS with the onshore substation.</p> <p>The offshore cable through the intertidal zone and the transition joint bay will be fully buried and the construction areas will be returned to their existing land use throughout the operational period of the Project.</p> <p>The Project proposes two options for location of the transition joint bay: Option 1 - on the beach at the end of the laneway close to the High Water Mark or Option 2 in the field immediately west of the High Water Mark. Both options have been considered in the assessment.</p>
Construction phase (27 months):: Effects of onshore cable route on Landscape and Seascape Resources and Visual Amenity			
<p>Construction works associated with the onshore cable route may affect:</p> <ul style="list-style-type: none"> Undesignated Landscape Resources; Designated Landscape Resources; and Visual Amenity. 	Direct and Indirect Effects	<ul style="list-style-type: none"> Construction works along the length of the onshore cable route (20.1 km) from the onshore substation to the landfall location including, the crossings of the River Dee at Richardstown, the M1/Rail line, the River Dee crossing at Drumcar, the Port Stream at Clonmore, the Port Stream at Togher, the Salterstown Stream at Mitchelstown and the Newhall stream and Ardballan Stream within the existing roadway network. Construction activities associated with trenching and ducting of the 220 kV underground cable within the existing road corridor including traffic management. Construction activities associated with the installation of the 29 joint bays and one transition joint bay. Construction activities associated with the HDD crossings at: 	<p>The Project will use one 220 kV High Voltage Alternating Current (HVAC) transmission cable to connect the OSS with the onshore substation.</p>

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Potential Impact	Direct/Indirect Project design parameters	Justification
	<ul style="list-style-type: none"> – the M1 Motorway and Rail Line including drive pit located in a field to the east of the railway line and to the north of the N33 and the reception pit located in a field to the west of the M1 and also to the north of the N33. – the River Dee HDD crossing at Drumcar Bridge including drive pit located in a field to the east of the Drumcar Bridge and the reception pit located in a field to the west of Drumcar Bridge. – the River Dee HDD crossing at Richardstown adjacent to the N33 including drive pit and reception pit. – the HDD stream crossings at Togher and Salterstown including drive pit and reception pit. • Presence of temporary construction compounds (i.e. HDD and/or storage) for the installation of the onshore cable including at the landfall location, at the Port stream (Togher), adjacent to joint bay 17, the River Dee at Drumcar, east of the M1/Railway, the River Dee at Richardstown and at the onshore substation site. 	
<p>Construction phase (27 months): Effects of onshore substation on Landscape and Visual Amenity</p>		
<p>Construction works associated with the onshore substation may affect:</p> <ul style="list-style-type: none"> • Undesignated Landscape Resources; • Designated Landscape Resources; and • Visual Amenity. 	<p>Direct and Indirect Effects</p> <ul style="list-style-type: none"> • Construction activities associated with site clearance, site investigations, topsoil stripping and storage and introduction of a capping layer of crushed stone. • Presence of temporary working compound required to construct the onshore substation including offices, stores and welfare facilities. • Construction activities associated with the onshore substation including access roads, plant, buildings, perimeter fencing and landscape works. 	<p>The onshore substation will comprise of two compounds containing both gas insulated switchgear enclosed within a building and outdoor air insulated switchgear.</p>
<p>Construction phase (15 months): Effects of wind turbines and offshore substation on Landscape and Seascape Resources and Visual Amenity</p>		
<p>Construction works associated with the installation of wind turbines and OSS on the following:</p> <ul style="list-style-type: none"> • Undesignated Landscape Resources; • Undesignated Seascape Resources; • Designated Landscape Resources; • Designated Seascape Resources; and • Visual Amenity. 	<p>Direct and Indirect Effects</p> <ul style="list-style-type: none"> • Temporary presence of specialised sea vessels for construction activities associated with the construction of 25 wind turbines to 270 m tip height. • Temporary presence of specialised sea vessels for construction activities associated with the OSS. • Views of turbines and other structures under partial and full construction. 	<p>Greatest number of structures with maximum height of 270m in greatest visual extent</p>

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Table 27-27: Project design parameters used for the assessment of potential operational and maintenance impacts on landscape, seascape and visual amenity.

Potential Impact	Direct/Indirect	Project design parameters	Justification
Operational and maintenance phase: Effects of onshore substation on Landscape and Visual Amenity			
Long term operational effects associated with the onshore substation may effect: <ul style="list-style-type: none"> Undesignated Landscape Resources; Designated Landscapes Resources; and Visual Amenity. 	Direct and Indirect Effects	<ul style="list-style-type: none"> Presence of new buildings, two-line cable interface masts and substation outdoor infrastructure within the landscape. Visibility of new buildings, compounds and substation infrastructure within views. 	New onshore substation structures present as new buildings and associated infrastructure within the landscape.
Operational and maintenance phase: Effects of wind turbines and offshore substation on Landscape and Seascape Resources and Visual Amenity			
Operation of 25 wind turbines and 1no. OSS on the following: <ul style="list-style-type: none"> Undesignated Landscape Resources; Undesignated Seascape Resources; Designated landscapes Resources; Designated Seascape Resources; and Visual Amenity. 	Direct and Indirect Effects	<ul style="list-style-type: none"> Presence of offshore wind turbines and OSS within open sea views. Introduction of new structures (including OSS). Boat movements to and from the offshore infrastructure during the operational and maintenance phase. 	WTGs with maximum height of 270 m resulting in greatest visual extent

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Table 27-28: Project design parameters used for the assessment of potential decommissioning phase impacts on landscape, seascape and visual amenity.

Potential Impact	Direct/Indirect	Project design parameters	Justification
Decommissioning phase: Effects of offshore cable corridor on Landscape and Seascape Resources and Visual Amenity			
As above for the construction phase (Table 27-26), though in reverse with potential effects on the following: <ul style="list-style-type: none"> Undesignated Landscape Resources; Undesignated Seascape Resources; Designated Landscape Resources; Designated Seascape Resources; and Visual Amenity. 	Direct and Indirect Effects	<ul style="list-style-type: none"> Visibility of specialist boats and machinery in sea views as cables are removed from the seabed as part of the decommissioning phase. 	Decommissioning activities associated with the offshore cable through the intertidal zone and the transition joint bay. Temporary visibility of specialist machinery in sea views.
Decommissioning phase: Effects of onshore cable route and landfall on Landscape and Seascape Resources and Visual Amenity			
See below	Direct and Indirect Effects	<ul style="list-style-type: none"> It is expected that to minimise the environmental disturbance during decommissioning of the onshore cable, the cable will be cut at each joint bay connection and pulled through in order to prevent damage to landscape features such as hedgerows. 	Decommissioning activities associated with the offshore cable.
Decommissioning phase: Effects of onshore substation on Landscape and Seascape Resources and Visual Amenity			
As above for the construction phase (Table 27-26), though in reverse with structures being removed.	Direct and Indirect Effects	<ul style="list-style-type: none"> The case for decommissioning the onshore substation will be reviewed in discussion with the transmission system operator and the regulator in the light of any other existing or proposed future use of the onshore substation. If complete decommissioning is required, then all of the electrical infrastructure will be removed and any waste arising disposed of in accordance with relevant regulations. Foundations will be broken up and the site reinstated to its original condition. 	The requirement to decommission structures resulting in greatest visual extent.
Decommissioning phase: Effects of wind turbines and offshore substation on Landscape and Seascape Resources and Visual Amenity			
As above for the construction phase (Table 27-26), though in reverse with structures being removed.	Direct and Indirect Effects	<ul style="list-style-type: none"> Temporary presence of specialised sea vessels for decommissioning activities associated with the removal of wind turbines to 270 m tip height. Temporary presence of specialised sea vessels for decommissioning activities associated with the removal of the OSS. Views of turbines and other structures under partial and full removal. 	Structures with maximum height of 270 m resulting in greatest visual extent

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27.8.2 Measures included in the Project

As part of the project design process, a number of measures have been proposed to reduce the potential for impacts on Seascape, Landscape and Visual Amenity (see Table 27-29 below). As there is a commitment to implementing these measures, they are considered inherently part of the design of the Project and have therefore been considered in the assessment presented in section 27.10 below (i.e. the determination of magnitude and therefore significance assumes the implementation of these measures). These measures are considered standard industry practice for this type of development.

The wind turbines, onshore cable route and the onshore substation have been selected having regard for a range of environmental factors including Seascape, Landscape and Visual Amenity. These designed in measures are summarised in the table below.

Table 27-29: Measures included in the Project.

Measures included in the Project	Justification
The use of colour and façade style on the onshore substation buildings.	To reduce the impact of the onshore substation building on landscape and on visual receptors.
Turbine towers and blades will be to a uniform colouration.	Colouration of the turbines and blades will be to industry standard (light grey) which reduces visibility of the wind turbines in typical overcast, conditions .
Turbine locations are spaced to reduce visual clutter and avoid overlap with background landscape.	To provide visual uniformity and visual coherence in views.
Turbines will be of identical rotor diameter.	To provide visual uniformity and visual coherence in views.
The onshore cable route is primarily within the existing roadways / roadside verges and thereby minimises the severance of farmed landscape and landscape features including hedgerows, trees and woodland.	To reduce the impact of the Project upon existing landscape features and landscape character.
HDD technology will be used to facilitate the M1 Road/Rail crossing, the two River Dee crossings (Drumcar and Richardstown), the Port Stream at Togher, the stream at Salterstown to limit the impact on landscape features.	To limit the impact of the Project on landscape elements (farmland, vegetation, and watercourses) and landscape character at these specific locations.
The chosen location for the onshore substation is as close as is possible to the existing Woodland - Louth 220 kV overhead line within a landscape at relatively low elevation and featuring wooded cover.	To reduce the impact of the Project on landscape character and nearby residential settlements and dwellings.
Replacement hedgerow planting at locations along the onshore cable route.	Replacement planting for hedgerows removed. Shallow rooting species where required over the onshore cable route to prevent disturbance of the cables by roots.
Restoration and repair of gates and fences that have been removed/damaged during the construction works.	Replacement of existing features forming part of the existing landscape character and/ or visual resources.

27.8.3 Impacts scoped out of the assessment

Operational and maintenance phase impacts associated with the landfall location (i.e. offshore cable connection) and associated onshore cable connection have been scoped out of the assessment. These portions of the Project will be buried with all ground disturbance being re-instated following completion of the installation works, together with replacement hedgerow planting where instances of hedgerow removal have occurred. Whilst it is considered that there are likely to be short-term, temporary landscape and visual effects as replacement hedgerow planting matures, they are not considered to be significant, and will be localised and often difficult to discern in the wider landscape context.

27.9 Impact assessment methodology

27.9.1 Overview

The assessment on seascape, landscape and visual amenity has followed the methodology set out in volume 2A, chapter 3: Environmental Impact Assessment Methodology. Specific to this assessment, the following published best practice guidance documents were considered:

- Landscape Institute and Institute of Environmental management and Assessment, Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, (2013);
- Countryside Council for Wales, Brady Shipman and Martin, University College Dublin, Guide to Best Practice in Seascape Assessment (2001) Maritime Ireland/Wales INTERREG Report No. 5;
- Department of Trade and Industry, Guidance on the Assessment of the Impact of Offshore Wind Farm: Seascape and Visual Impact Report (2005) (hereafter referred to as the 'DTI Guidance 2005');
- Landscape Institute and the Institute of Environmental Management and Assessment, Guidelines of Landscape and Visual Impact Assessment: Third Edition (2013) (hereafter referred to as the 'GLVIA3').
- Scottish Natural Heritage (SNH) (now known as NatureScot), Offshore Renewables – Guidance on assessing the impact on coastal landscape and seascape, Guidance for Scoping an Environmental Statement (SNH, 2012);
- SNH (now known as NatureScot), Visual Representation of Wind Farms Guidance (SNH, 2017a);
- SNH (now known as NatureScot), Siting and Designing Wind Farms in the Landscape (SNH, 2017b);
- Northern Ireland Environment Agency, Wind Energy Development in Northern Ireland's Landscapes: Supplementary Planning Guidance to Accompany Planning Policy Statement 18 'Renewable Energy' (2010);
- Guidance on EIS and NIS Preparation for Offshore Renewable Energy Projects (Barnes, 2017); and
- Department of the Environment, Heritage and Local Government (DEHLG), Draft Planning Guidelines (wind energy), (DEHLG, 2006).

The assessment of effects on landscape and seascape resources and assessment of effects on visual resource are separate but interconnected. Established guidance, referenced above, makes a distinction between landscape effects and visual effects. The following sections sets out the information used to make the judgements on the effects of the Project in a systematic and comprehensive manner.

In summary, the principal objectives of the assessment are:

- To describe, classify and evaluate the existing seascape, landscape and visual amenity resources / receptors likely to be affected by the proposal's construction, operational and maintenance and decommissioning phases; and
- To assess the significance of the effects of the proposal on landscape and visual resources / receptors, taking into account the measures proposed to mitigate any effects identified.

Landscape receptors include physical elements, features and characteristics that may be affected by the proposal. Visual receptors include the public or community at large, residents and visitors to the area.

The significance of effect on a receptor can be established by identifying the sensitivity of the receptor to the proposed change, in combination with the magnitude of the proposed impact that might occur as a result of the proposal. The development proposals under consideration are described in volume 2A, chapter 5: Project Description.

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27.9.2 Staged process

In order to undertake a complete assessment, several clear stages were identified and addressed with reference to the guidance in GLVIA3 as follows:

- Establishment of the Study Area (section 27.3);
- Desk studies (section 27.6.1);
- Field surveys (section 27.6.2);
- Consultation (section 27.5);
- Iterative design (see chapter 4: Consideration of Alternatives); and
- Assessment of significance of effects (section 27.10).

27.9.2.1 Impact assessment criteria

The assessment of effects on seascape, landscape and visual amenity has been undertaken for all stages of the Project including construction, operational and maintenance and decommissioning.

A key distinction between impact and effect is outlined based on the glossary of the Highways Agency Design Manual for Roads and Bridges (DMRB) (2008):

- **Impact:** Change that is caused by an action; for example, land clearing (action) during construction which results in habitat loss (impact); and
- **Effect:** Term used to express the consequence of an impact (expressed as the 'significance of effect'), which is determined by correlating the magnitude of the impact to the importance, or sensitivity, of the receptor or resource in accordance with defined significance criteria. For example, land clearing during construction results in habitat loss (impact), the effect of which is the significance of the habitat loss on the ecological resource.

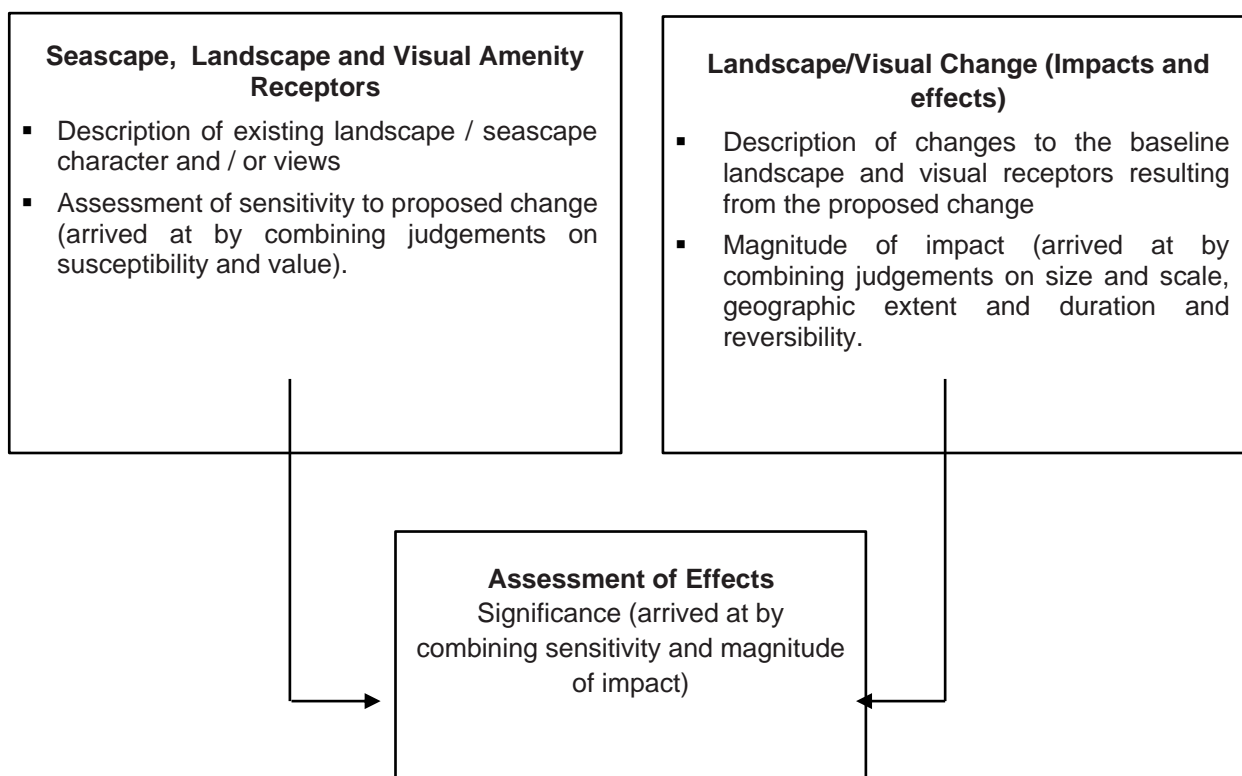
The effects of the Project on seascape, landscape and visual amenity receptors (people) have been assessed by combining judgements concerning the sensitivity of the seascape, landscape and visual amenity receptor with judgements concerning the predicted magnitude of impact resulting from the proposed change. It is important to note that significance is determined on a case by case basis using professional judgement with the methodology below as a guide and this approach accords with the guidance in GLVIA3.

The guidance also states that '*The regulations require that a final judgement is made about whether or not each effect is likely to be significant*'. There are no hard and fast rules about what effects should be deemed significant but LVIAs should always distinguish clearly between what are considered to be significant and non-significant effects.

The sensitivity of the landscape and visual receptors is arrived at by combining judgements regarding the susceptibility and value of the seascape, landscape and visual amenity receptor. The magnitude of impact is arrived at by combining judgements concerning size and scale, the geographic extent and duration and reversibility.

The assessment methodology is summarised in the graphic below and is explained in detail in this section of the chapter.

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Graphic: Assessment Methodology Summary.

The assessment considers the potential effects of a project upon:

- Individual landscape / seascape features and elements;
- Landscape and seascape character; and
- Visual amenity and the people who view the landscape.

Assessing the significance of an effect is an evidence-based process combining professional judgment on the nature of a seascape, landscape and visual amenity receptor's sensitivity (susceptibility or ability to accommodate change and the value attached to the receptor) and the magnitude of impact resulting from the proposed change (size and scale, geographic extent, duration and reversibility). The detailed methodology is set out below. **Note: Use of the term landscape, in the context of the Project is to be interpreted as meaning both landscape and seascape.**

27.9.2.2 Landscape sensitivity

The determination of the sensitivity of the landscape receptor is based upon an evaluation of the elements or characteristics of the landscape likely to be affected. The evaluation reflects such factors as its quality, value, contribution to landscape character and the degree to which the particular element or characteristic can be replaced or substituted.

GLVIA3 at paragraph 5.39 states that '*landscape receptors need to be assessed firstly in terms of their sensitivity, combining judgments of their susceptibility to the type of change or development proposed and the value attached to the landscape*'.

Susceptibility is defined by GLVIA3 at paragraph 5.40 as '*the ability of the landscape receptor (whether it be the overall character or quality/ condition of a particular landscape type or area, or an individual element and/ or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without due consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies*'.

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The value of a landscape receptor is determined with reference to the presence of relevant designation) and their level of importance. For the purpose of this assessment, landscape value is categorised as:

- **Very High:** Areas of landscape acknowledged as being of national or international importance reflected in designation such as Areas of Outstanding Natural Beauty (AONB) in Northern Ireland. These are of landscape significance within the wider region or nationally;
- **High:** Areas that have a very strong positive character with valued and consistent distinctive features that gives the landscape or seascape unity, richness and harmony. These are of landscape significance within the district;
- **Medium:** Areas that exhibit positive character, but which may have evidence of alteration/degradation or erosion of features resulting in a less distinctive landscape or seascape. These may be of some local landscape significance with some positive recognisable structure; and
- **Low:** Areas that are generally negative in character, degraded and in poor condition. No distinctive positive characteristics and with little or no structure. Scope for positive enhancement.

The criteria for defining sensitivity for landscape receptors are broadly defined in accordance with Table 27-30 below.

Table 27-30: Landscape sensitivity.

Sensitivity	Susceptibility	Value
Very High	Exceptional landscape quality, no or limited potential for substitution. Key elements / features well known to the wider public. Little or no tolerance to change.	Nationally / internationally designated/ valued landscape, or key elements or features of national/ internationally designated landscapes. Little or no tolerance to change.
High	Strong/ distinctive landscape character; absence of landscape detractors. Low tolerance to change.	Regionally/ nationally designated/ valued countryside and landscape features. Low tolerance to change.
Medium	Some distinctive landscape characteristics; few landscape detractors. Medium tolerance to change.	Locally' regionally designated/ valued countryside and landscape features. Medium tolerance to change.
Low	Absence of distinctive landscape characteristics; presence of landscape detractors. High tolerance to change.	Undesignated countryside and landscape features. High tolerance to change.
Negligible	Absence of positive landscape characteristics. Significant presence of landscape detractors. High tolerance to change.	Undesignated countryside and landscape features. High tolerance to change.

27.9.2.3 Magnitude of impact – landscape

The effect on landscape receptors and the overall judgement of the magnitude of landscape impact is based on combining judgements on '*size or scale, the geographic extent of the area influenced, and its duration and reversibility*' (GLVIA3, paragraph 5.48),

The changes caused to landscape and visual receptors as a result of the Project is evaluated in terms of their size or scale, geographical extent and duration and reversibility. For the purposes of this SLVIA assessment, duration is considered to be short term 0-10 years, medium term lasting 10 - 15 years, long term lasting 15 - 25 years and permanent lasting more than 25 years.

The criteria for defining magnitude of impact on landscape receptors are defined in in Table 27-31 below.

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Table 27-31: Magnitude of landscape impact.

Magnitude of impact	Definition
Large	Total loss or addition or/ very substantial loss or addition of key elements / features / patterns of the baseline, i.e., pre-development landscape and/ or introduction of dominant, uncharacteristic elements with the attributes of the receiving landscape.
Medium	Partial loss or addition of or moderate alteration to one or more key elements / features / patterns of the baseline, i.e., pre-development landscape and / or introduction of elements that may be prominent but may not necessarily be substantially uncharacteristic with the attributes of the receiving landscape.
Small	Minor loss or addition of or alteration to one or more key elements / features / patterns of the baseline, i.e., pre-development landscape and or introduction of elements that may not be uncharacteristic with the surrounding landscape.
Negligible	Very minor loss or addition of or alteration to one or more key elements / features / patterns of the baseline, i.e., pre-development landscape and/or introduction of elements that are not uncharacteristic with the surrounding landscape approximating to a 'no-change' situation.
None	No loss, alteration or addition to the receiving landscape resource.

27.9.2.4 Visual receptor sensitivity

Sensitivity of visual receptors is arrived at by combining judgements concerning their susceptibility to the type of change or development proposed and the value attached to the particular views.

Paragraph 6.32 of the GLVIA refers to the susceptibility of different visual receptors to changes in views and states that susceptibility is mainly a function of *'the occupation or activity of different people experiencing the view at particular locations'* and *'the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations.'*

Judgements on the overall visual receptor sensitivity are provided in Table 27-32 below. The sensitivity of the visual receptor is based on combining judgements on the sensitivity of the human receptor (for example resident, commuter, tourist, walker, recreationist or worker, and the numbers of viewers affected) and judgements on the visual resource value (for example views experienced from residential properties, workplace, leisure venue, local beauty spot, scenic viewpoint, commuter route, tourist route or walkers' route).

The criteria for defining sensitivity for visual receptors are defined in in Table 27-32 below.

Table 27-32: Visual receptor sensitivity.

Sensitivity	Viewer susceptibility	Value of views
Very High	Observers, drawn to a particular view, including those who have travelled to experience the views. Little or no tolerance to change.	Views of remarkable scenic quality, of and within internationally designated landscapes or key features or elements of nationally designated landscapes that are well known to the wider public. Little or no tolerance to change.
High	Observers enjoying the countryside from their homes or pursuing quiet outdoor recreation are more sensitive to visual change. Little tolerance to change.	Views from residential property. Public rights of way, National Trails, Long distance walking routes and nationally designated countryside/ landscape features with public access. Low tolerance to change.
Medium	Observers enjoying the countryside from vehicles on quiet/ promoted routes are moderately sensitive to visual change. Medium tolerance to change.	Views from local roads and routes crossing designated countryside / landscape features and 'access land' as well as promoted paths. Medium Tolerance to change.

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Sensitivity	Viewer susceptibility	Value of views
Low	Observers in vehicles or people involved in frequent or infrequent repeated activities are less sensitive to visual change. High tolerance to change.	Views from work-places, main roads and undesignated countryside / landscape features. High tolerance to change.
Negligible	Observers in vehicles or people involved in frequent or frequently repeated activities are less sensitive to visual change. High tolerance to change.	Views from within and of undesignated landscapes with significant presence of landscape detractors. High tolerance to change.

27.9.2.5 Magnitude of impact - visual

The criteria for defining the magnitude of impact on visual receptors are defined in Table 27-33.

Table 27-33: Magnitude of visual impact.

Magnitude of impact	Definition
Large	Complete or very substantial change in view dominant involving complete or very substantial obstruction of existing view or complete change in character and composition of baseline (e.g. through removal of key elements).
Medium	Moderate change in view: which may involve partial obstruction of existing view or partial change in character and composition of baseline, i.e., pre-development view through the introduction of new elements or removal of existing elements. Change may be prominent but would not substantially alter scale and character of the surroundings and the wider setting. Composition of the view would alter. View character may be partially changed through the introduction of features which, though uncharacteristic, may not necessarily be visually discordant
Small	Minor change in baseline, i.e. pre-development view - change would be distinguishable from the surroundings whilst composition and character would be similar to the pre change circumstances.
Negligible	Very slight change in baseline, i.e. pre-development view - change barely distinguishable from the surroundings. Composition and character of view substantially unaltered.
None	No alteration to the existing view

27.9.2.6 Significance of effects

The purpose of this LVIA is to determine, in a transparent way, the likely significant landscape and visual effects of the Project.

GLVIA3 identifies that ‘..... a final judgment is made about whether or not each effect is likely to be significant. There are no hard and fast rules about what effects should be deemed ‘significant’ but LVIAs should always distinguish clearly between what are considered to be significant and non-significant effects’.

Significance can only be defined in relation to each particular development and its specific location. The relationship between receptors and effects is not typically a linear one. It is for each LVIA to determine how judgements about receptors and effects should be combined to derive significance and to explain how this conclusion has been arrived at.

The identification of significant effects would not necessarily mean that the effect is unacceptable in planning terms. What is important is that the likely effects on the landscape and visibility are transparently assessed and understood in order that the determining authority can bring a balanced, well-informed judgement to bear when making the planning decision.

The significance of effects on landscape, views and visual amenity have been judged according to a six-point scale: Substantial, Major, Moderate, Minor, Negligible or None as presented in Table 27-34 below, which contains a description of the significance of effect criteria.

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Table 27-34: Significance of effect criteria.

Significance	Landscape Resource	Visual Resource
None / Nil	Where the project would not alter the landscape character of the area.	Where the project would retain existing views.
Negligible	Where proposed changes would have an indiscernible effect on the character of an area.	Where proposed changes would have a barely noticeable effect on views/visual amenity.
Minor	Where proposed changes would be at slight variance with the character of an area.	Where proposed changes to views, although discernible, would only be at slight variance with the existing view.
Moderate	Where proposed changes would be noticeably out of scale or at odds with the character of an area.	Where proposed changes to views would be noticeably out of scale or at odds with the existing view.
Major	Where proposed changes would be uncharacteristic and/or would significantly alter a valued aspect of (or a high quality) landscape.	Where proposed changes would be uncharacteristic and/or would significantly alter a valued view or a view of high scenic quality.
Substantial	Where proposed changes would be uncharacteristic and/or would significantly alter a landscape of exceptional landscape quality (e.g., internationally designated landscapes), or key elements known to the wider public of nationally designated landscapes (where there is no or limited potential for substitution nationally).	Where proposed changes would be uncharacteristic and/or would significantly alter a view of remarkable scenic quality, within internationally designated landscapes or key features or elements of nationally designated landscapes that are well known to the wider public.

The significance of the effect upon seascape, landscape and visual amenity is determined by correlating the magnitude of the impact and the sensitivity of the receptor. The particular method employed for this assessment is presented in Table 27-35. Where a range of significance of effect is presented in Table 27-35, the final assessment for each effect is based on calculated assessment and professional judgement.

For the purposes of this assessment, any effects with a significance level of Substantial or Major to Substantial are regarded as being significant. For those effects indicated as being of 'Moderate' or 'Moderate to Major' significance, the assessor has exercised professional judgement in determining if the effect is considered to be significant, having regard for the specific characteristics of the development and the baseline conditions. Effects of 'Minor to Moderate' and lesser significance have been identified within the assessment, though are not considered significant.

Table 27-35: Matrix used for the assessment of the significance of the effect.

		Magnitude of impact				
		No change	Negligible	Small	Medium	Large
Sensitivity of receptor	Negligible	None	Negligible	Negligible to Minor	Negligible to Minor	Minor
	Low	None	Negligible to Minor	Negligible to Minor	Minor	Minor to Moderate
	Medium	None	Negligible to Minor	Minor	Moderate	Moderate to Major
	High	None	Minor	Minor to Moderate	Moderate to Major	Major to Substantial
	Very High	None	Minor	Moderate to Major	Major to Substantial	Substantial

A conclusion that an effect is 'significant' should not be taken to imply that the Project is unacceptable. Significance of effect needs to be considered with regard to the scale over which it is experienced and whether it is beneficial or adverse.

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27.9.2.7 Visualisations

Zone of Theoretical Visibility (ZTV)

The ZTV is the area within which a proposed development is theoretically visible, and therefore where it may have an effect upon landscape character and visual amenity. ZTVs have been generated according to the methodology in section 27.7.2 and do not take into account factors such as detailed landform (e.g., manmade cuttings and embankments), vegetation, buildings or atmospheric conditions. Theoretical visibility does not imply visual impact.

The ZTV associated with the offshore elements of the Project has been based on the tip height of the proposed wind turbines only, and based on the tallest element of the Project. The ZTV associated with the offshore elements is illustrated in appendix 27-1: Seascape, Landscape and Visual – Accompanying Graphics; Figure 27.2.

A ZTV was also developed for the onshore substation using measurement data associated with the tallest structure, the GIS building, specifically using markers at the four corners of this building. The ZTV process also took account of height data for the proposed two terminal lattice towers and height data for the proposed lightning rods.

Wirelines and photomontages

Visualisations (wirelines and photomontages) of the Project (offshore elements and onshore substation) have been generated to illustrate potential views of the Project from selected viewpoint locations. Of these, 18 of the visualisations depict the proposed wind turbines and OSS and four of the visualisations depict the proposed onshore substation site.

The production of the wirelines and photomontages, and the layout of the figures, has been carried out in accordance with current guidance available from NatureScot (formerly Scottish Natural Heritage (SNH)), Visual Representation of Wind Farms (H+M and Envision, 2006). For each viewpoint, 90-degree views are included to show the existing visual baseline, proposed Project in context and proposed Project within a 53.5 degree view.

27.10 Assessment of significance

The potential impacts arising from the construction, operational and maintenance and decommissioning phases of the Project are listed in Table 27-26, Table 27-27 and Table 27-28 along with the project design parameter against which each impact has been assessed.

In order to avoid repetition, an assessment of effects predicted to occur during the construction, operational and maintenance, and decommissioning phases of the Project are included within the following assessments. In each case, the severity of impact is dealt with, then the magnitude of impact, and then the significance of effect.

A description of the potential effect on seascape, landscape and visual amenity caused by each identified impact is given below.

27.10.1 Seascape effects

As described previously, the seascape baseline has been informed by the published seascapes documented in the Seascape Character Assessment within the SEA Environmental Report of the OREDP (DECNR, 2010).

It is also acknowledged the Marine Institute has prepared a Regional Seascape Character Assessment (Marine Institute, 2020). The Regional Seascape Character Assessment currently identifies 13 Regional Seascape Character Types and provides a description of the 17 individual Regional Seascape Character Areas and two border local scale SCAs based on location, key characteristics and cultural influences.

The SCAs proposed within the Regional Seascape Character Assessment do not reflect those identified within the OREDP and for consistency within this chapter, those seascape types identified from the OREDP

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which lie within the SLVIA Study Area and judged to experience significant theoretical visibility following interrogation of the ZTV associated with the Project, are referenced within the following Seascope assessment tables and are illustrated in Figures 27.7 and 27-8.

Table 27-36: Large Bay.

Large Bay	
Sensitivity	<p>The wind turbines and OSS associated with the Project are judged to be located within this seascope area, approximately 6 km from the shoreline at their closest point at Cooley Point.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this seascope to the Project are described as:</p> <ul style="list-style-type: none"> • Large scale sweeping bay often with sand dunes; • Large settlement at Dundalk and Blackrock; • Large estuarine area associated with Castletown River; • Scattered development pattern along coastline; and • Headlands form focal points to northern and southern edges. <p>The seascope is generally a large scale seascope and comprises a relatively simple coastline with long sections of beach particularly along the northern coastline, with tidal flats and marshland along its western edge. The relatively well settled coastline is overall rural in character, though is locally influenced by built development at Dundalk and Blackrock which forms the main urban area at the head of the Castletown River. Dundalk Bay is judged to be unique in terms of seascope character and is judged to be of a high scenic quality due largely to the enclosure provided by Carlingford peninsula and associated mountains present within.</p> <p>Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the seascope to the Project is judged to be high.</p> <p>North western portions, along the Castletown River and southern portions at Dunany Point fall within Areas of High Scenic Quality. The scenic quality is also derived from the mountain skyline further north associated with the Mourne Mountains. The coast and sea are visually exposed and have little capacity to absorb change of the scale and nature such as that of the Project.</p> <p>Portions of the seascope (coastline) fall within Areas of High Scenic Quality, a County designation and the overall value of the seascope is judged to be high.</p> <p>Based on the susceptibility and value attached to this seascope, the overall sensitivity is judged to be high.</p>
Magnitude of Change – Construction Phase	<p>Construction phase activities associated with offshore cable laying and landfall location are located outside this SCA, with localised indirect effects on the character of the seascope predicted to arise from the presence and visibility of sea based traffic during cable laying operations.</p> <p>The predicted magnitude of change associated with the onshore cable and landfall location is judged to be localised and negligible.</p> <p>Sea based construction traffic and construction activities associated with the construction of the wind turbines and OSS will have a short term, direct effect upon the seascope. The incremental installation of the wind turbines will be seen from all portions of the SCA coastal areas, though shipping movements to and from the offshore areas will at times be indistinguishable from routine sea based traffic and may not be apparent in poor visibility.</p> <p>The predicted magnitude of change associated with the incremental construction of the wind turbines is judged to be large.</p>

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Large Bay

	<p>Onshore activities associated with construction of the substation and cable route are not located within the SCA, though are judged to have a localised, temporary short term indirect effect which is judged to give rise to a negligible magnitude of change.</p> <p>The overall magnitude of change associated with the construction phase of the Project is judged to be large, as the installation of the offshore elements will be visible within seaward views associated with the SCA.</p>
Magnitude of Change – Operational and Maintenance phase	<p>Theoretical visibility of the wind turbines is extensive across this seascape area. During the operational and maintenance phase of the Project, the offshore elements associated with the Project will form a distinct feature and visual draw within eastern views from within the SCA.</p> <p>The predicted magnitude of change associated with the offshore elements of the Project during the operational and maintenance phase is judged to be large.</p>
Magnitude of Change – Decommissioning phase	<p>Sea based traffic and decommissioning activities will have a short term, direct effect upon the seascape, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase associated with offshore element, including subsea cable connections is judged to be large and positive as turbines and OSS will ultimately be removed from the view.</p> <p>Onshore activities associated with decommissioning of the substation and onshore cable route are not located within the SCA, though are judged to have a localised, temporary short term indirect effect which is judged to give rise to a negligible magnitude of change.</p>
Significance of Effect during Construction Phase	<p>Major to substantial significance, adverse, direct, short term duration and judged to be significant for the offshore elements of the Project.</p> <p>Minor significance, localised, adverse, indirect temporary and judged to be not significant for the onshore cable laying, onshore substation and the landfall location.</p>
Significance of Effect during Operational and Maintenance phase	<p>Major to substantial significance, adverse, direct long term, reversible and judged to be significant for wind turbines and the offshore substation.</p>
Significance of Effect during Decommissioning phase	<p>Major to substantial significance, adverse, direct and short duration as turbines and OSS are removed.</p> <p>Minor significance, localised, adverse, indirect, and judged to be not significant for the onshore cable, the landfall location and the onshore substation removal.</p>

Table 27-37: Large open or partially open sea lough with raised hinterland.

Large open or partially open sea lough with raised hinterland

Sensitivity	<p>The wind turbines and substation associated with the Project are judged to be located within southern portions of this seascape area, being located approximately 6.5 km from the shoreline at its closest point at Ballagan Point.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this seascape to the Project are described as:</p> <ul style="list-style-type: none"> • Large scale sea loughs associated with coastal plains, hinterland and headlands; • Sea loughs typically contained within broad, enclosed valleys; • Variety of settlement types; and • Ports and harbours often located at Lough heads with associated urban and industrial developments. <p>This SCT is generally a large scale seascape with open views from shorelines, which are contained and backdropped by rising lands further inland. The SCT occurs within the northern part of the SLVIA Study Area only and relates to coastal edges primarily associated with Northern Ireland and Carlingford Lough. Carlingford Lough, from where views towards the open sea are focused by elevated lands associated with The Mournes</p>
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Large open or partially open sea lough with raised hinterland

	<p>and the Cooley Peninsula forms an important shipping channel, providing access to Warrenpoint and Newry with frequent shipping movements experienced within the seascape. The coastline is well settled with scattered single and clusters of residential dwellings apparent along coastal roads between Kilkeel, Ballymartin and Annalong. Large scale caravan parks are a prominent feature on the shoreline, often located adjacent to large expanses of sandy beaches, the largest of which is located at Cranfield, north-east of Greencastle.</p> <p>Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the seascape to the Project is judged to be medium.</p> <p>Northern portions of the SCA, associated with the southern edge of Carlingford Lough fall within Areas of High Scenic Quality as identified in the Louth CDP. Scenic quality is also derived from the mountain skyline further north associated with the Mourne Mountains. Based on the susceptibility and value attached to this seascape, the overall sensitivity is judged to be high.</p>
<p>Magnitude of Change – Construction Phase</p>	<p>Construction phase activities associated with the onshore cable route and landfall location are located outside this SCA, with localised indirect effects on the character of the seascape predicted to arise from the presence and visibility of sea based traffic during cable laying operations within southern views from Cranfield Point. Onshore activities associated with this portion of the Project will not be perceived on the headland at Dunany Point due to attenuation by distance.</p> <p>The predicted magnitude of change associated with the onshore cable and landfall location is judged to be localised and negligible.</p> <p>Sea based construction traffic and activities associated with the construction of the wind turbines, OSS and offshore cable laying will have a short term, direct effect upon southern portions of the SCT between Kilkeel and Annalong. The incremental installation of the wind turbines will be seen within southern portions of SCT that have uninterrupted views south, though shipping movements to and from the offshore areas will at times be indistinguishable from routine sea based traffic and may not be apparent in poor visibility.</p> <p>The predicted magnitude of change associated with the incremental construction of the wind turbines is judged to be large for the turbines closest to the SCA, decreasing to medium for southern most turbines.</p> <p>Onshore activities associated with construction of the substation and onshore cable route are not located within the SCA, and due to attenuation by distance and screening provided by topographical changes and vegetation cover will not be visible in southern views from the SCA, giving rise to a no change scenario.</p> <p>The overall magnitude of change associated with the construction phase of the Project is judged to be localised and large, as the installation of the offshore elements will be visible from southern portions of the SCA and only in available, southern views.</p>
<p>Magnitude of Change – Operational and Maintenance phase</p>	<p>Theoretical visibility of the wind turbines is extensive across this SCA with coastal areas between Cranfield and Annalong predicted to experience visibility. During the operational and maintenance phase of the Project, the offshore elements associated with the Project will form a distinct feature within southern views from the SCA.</p> <p>The predicted magnitude of change associated with the offshore elements of the Project during the operational and maintenance phase is judged to be large.</p>
<p>Magnitude of Change – Decommissioning phase</p>	<p>Sea based traffic and decommissioning activities will have a short term, direct effect upon the seascape, like that predicted to occur during the construction phase though will result in the removal of the turbines and OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase associated with the offshore elements of the Project are judged to be large and positive as turbines and the OSS will ultimately be removed from the view.</p>
<p>Significance of Effect during Construction Phase</p>	<p>Major to substantial significance, adverse, direct, short term duration and judged to be significant for the offshore elements of the Project.</p>

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Large open or partially open sea lough with raised hinterland

	Minor significance , localised adverse, indirect, temporary, and judged to be not significant for the offshore cable laying works and landfall location.
Significance of Effect during Operational and Maintenance phase	Major to substantial significance , adverse, direct long term, reversible and judged to be significant.
Significance of Effect during Decommissioning phase	Major to substantial significance , adverse, direct, short term duration as turbines are removed.

Table 27-38: Low Lying Coastal plain & estuarine landscape, low lying islands and peninsulas.

Low lying coastal plain & estuarine landscape, low lying islands and peninsulas

Sensitivity	<p>The wind turbines and offshore substation associated with the Project are judged to be located within northern portions of the SCA only, being located approximately 10.2 km north of the SCA at Dunany Point. The landfall location associated with the offshore cable connection and a minor portion of the onshore cable route are also considered to be located within this SCA.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this seascape to the Project are described as:</p> <ul style="list-style-type: none"> • Diverse and changeable seascape scale ranging from large to medium scale; • Flat and often exposed seascape with wide open views; and • High degree of intervisibility between sea and land. <p>Coastal edges associated with the SCA are comprised of long sandy beaches or strands, sweeping bays, curved sandy beaches or in some instances (e.g northern portions of the coast at Clogherhead), the foreshore is rocky and part fragmented. The mouth of the River Boyne forms a low lying river estuary with beach, backed by dune systems and forms an important shipping link with Drogheda. The open landscape frequently adjacent to coastal areas has an exposed character, though field boundary hedgerows and woodland often screens views of the sea from further inland areas. Patterns of settlement within this seascape type are generally rural and scattered though larger areas of settlement at Drogheda, Roseville and Balbriggan locally influence the SCA. Golf courses and holiday (including caravan parks) are also found adjacent to the SCA and add further local influence on the SCA.</p> <p>Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the seascape to the Project is judged to be high.</p> <p>Northern portions of the SCA, associated with Dunany Point fall within Areas of High Scenic Quality as identified in the Louth CDP, whilst areas associated with Clogherhead fall within the Clogherhead and Port Oriel AONB. Scenic quality is also derived from the mountain skyline further north associated with the Mourne Mountains.</p> <p>Based on the susceptibility and value attached to this seascape, the overall sensitivity is judged to be high.</p>
Magnitude of Change – Construction Phase	<p>Construction phase activities associated with the landfall, specifically the offshore cable connection to the onshore cable route will cross the beach south of Dunany Point. The connection of the offshore cable to the onshore cable will take place within a TJB in either the beach at the end of laneway (Option 1) or a field enclosed by mature hedgerows at the coast and adjacent to the beach (Option 2). Sea based construction related traffic will be present travelling to and from the landfall within this SCA.</p> <p>Construction activities at the site associated with the TJB will be screened from the surrounding landscape due to the mature hedgerows. Sea based construction activities including plant and machinery at the coast and sea-based traffic will be apparent along the length of the coast from Dunany Point to Clogherhead. The elements would be small in scale in the context of the wider seascape and sea-based construction traffic may be indistinguishable from routing sea traffic.</p>

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Low lying coastal plain & estuarine landscape, low lying islands and peninsulas

	<p>The predicted magnitude of change associated with the onshore cable and landfall location is judged to be localised and negligible.</p> <p>Sea based construction traffic and activities associated with the construction of the wind turbines, OSS and offshore cable laying will have a short term, direct effect upon northern portions of the SCA between Dunany Point and Clogherhead approximately. Remaining portions of the SCA south of Clogherhead are considered to experience an indirect effect as a consequence of offshore elements. The incremental installation of the wind turbines will be seen within northern portions of SCT and from localised southern portions of the SCA that have uninterrupted views north, though shipping movements to and from the offshore areas will at times be indistinguishable from routine sea-based traffic.</p> <p>The predicted magnitude of change associated with the incremental construction of the wind turbines is judged to be large for northern portions of the SCA, decreasing to small for southern portions of the SCA beyond Clogherhead.</p> <p>Onshore activities associated with the installation of the onshore cable route are largely screened from within the SCA due to existing vegetation cover and localised changes in topography.</p> <p>The predicted magnitude of change associated with the onshore cable and landfall location is judged to be localised and negligible.</p> <p>The overall magnitude of change associated with the construction phase of the Project is judged to be localised and large for northern portions of the SCA, decreasing to small for southern portions of the SCA.</p>
Magnitude of Change – Operational and Maintenance phase	<p>Theoretical visibility of the wind turbines is extensive across northern portions of the SCA with coastal areas between Dunany Point and Clogherhead predicted to experience visibility, where the offshore elements associated with the Project will form a distinct feature within northern views from the SCA.</p> <p>Whilst remaining portions of the SCA south of Clogherhead are also predicted to experience visibility of the offshore elements of the Project, it is considered that offshore elements will form a small element in northern views only with eastern views from the SCA remaining unaffected by the Project.</p> <p>The predicted magnitude of change associated with the offshore elements of the Project during the operational and maintenance phase is judged to be large for northern portions only, reducing to small for southern portions of the SCA.</p>
Magnitude of Change – Decommissioning phase	<p>Sea based traffic and decommissioning activities will have a short term, indirect effect upon the SCA, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase associated with the offshore elements of the Project are judged to be large and positive for northern portions, reducing to small and beneficial for southern portions of the SAC as turbines and OSS will ultimately be removed from the view.</p> <p>The predicted magnitude of change associated with the decommissioning of the onshore cable and landfall location is judged to be localised and negligible.</p>
Significance of Effect during Construction Phase	<p>Major to substantial significance, adverse, direct, short term duration and judged to be significant for northern portions of the SCA associated with the construction of the offshore elements of the Project.</p> <p>Minor significance, localised, adverse, temporary and judged to be not significant for the offshore cable laying works and the landfall location.</p>
Significance of Effect during Operational and Maintenance phase	<p>Major to substantial significance, adverse, direct long term, reversible and judged to be significant for northern portions of the SCA between Dunany Point and Clogherhead.</p> <p>Minor to moderate significance, adverse, indirect, long term reversible and judged to be not significant for southern portions of the SCA.</p>
Significance of Effect during Decommissioning phase	<p>Major to substantial significance, adverse, direct, short term duration for northern portions of the SCA as turbines are removed.</p> <p>Minor to moderate significance, localised, adverse indirect, short term duration for southern portions of the SCA.</p>

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Low lying coastal plain & estuarine landscape, low lying islands and peninsulas

Minor significance, localised indirect, and judged to be not significant for the onshore cable, the landfall location and onshore substation removal.

Table 27-39: Low lying plateau landscape.

Low lying plateau landscape

Sensitivity	<p>None of the elements associated with the Project are located within the SCA, being located approximately 29.4 km from the SCA at their closest location.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this seascape to the Project are described as:</p> <ul style="list-style-type: none"> • Intricate and variable scale seascape to the north of Dublin; • Offshore islands include Lambay Island, Ireland’s Eye and Skerries Islands form distinct visual draws in eastern views; • Urban development at Balbriggan, Churchfield and Rush locally influence the seascape; • Coastline comprised of low cliffs and narrow curving sandy bays with rocky headlands; and • Large estuaries at Rogerstown, Malahide and Portmarnock provide further variety in the seascape. <p>The seascape is generally a large scale seascape and comprises a relatively simple coastline with sections of beach interspersed with rocky headlands which form localised focal points within the SCA. The coastline is well settled with Balbriggan, Rush, Malahide and Churchfield locally influencing the SCA and providing focal points for recreational activities. The coastline features linear development in the form of transport corridors including minor roads and the east coast railway line. Offshore islands form distinct elements within eastern views from the SCA, adding visual interest to the open and expansive sea views.</p> <p>Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the seascape to the Project is judged to be medium.</p> <p>Portions of the seascape (coastline) fall within the High Amenity Areas as identified in the Fingal Development Plan, a county designation. The overall value of the seascape is judged to be medium, due to the influence of large areas of development along the coastal edge.</p> <p>Based on the susceptibility and value attached to this seascape, the overall sensitivity is judged to be medium.</p>
Magnitude of Change – Construction Phase	<p>Construction phase activities associated with the onshore cable route and landfall are located outside this SCA and will not be perceived from within the SCA, giving rise to a no change scenario.</p> <p>Sea based construction traffic and activities associated with the construction of the wind turbines, OSS and cable laying operations will have a short term, indirect effect upon northern portions of the SCA between Balbriggan and Skerries only. The incremental installation of the wind turbines will be seen, at distance, within northern views only from this portion of the SCA, and form a minor, often indistinguishable element of the view. Shipping movements to and from the offshore areas will be indistinguishable from routine sea based traffic.</p> <p>The predicted magnitude of change associated with the incremental construction of the wind turbines is judged to be negligible.</p> <p>Onshore activities associated with construction of the substation and cable route are located outside this SCA and will not be perceived from within the SCA, giving rise to a no change scenario.</p>

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Low lying plateau landscape

	The overall magnitude of change associated with the construction phase of the Project is judged to be localised and negligible.
Magnitude of Change – Operational and Maintenance phase	Theoretical visibility of the wind turbines is extensive across northern portions of the SCA with coastal areas between Balbriggan and Skerries predicted to experience visibility of offshore elements. During the operational and maintenance phase of the Project, the offshore elements associated with the Project will form a minor, often indistinguishable feature within northern views. The predicted magnitude of change associated with the offshore elements of the Project during the operational and maintenance phase is judged to be negligible.
Magnitude of Change – Decommissioning phase	Sea based traffic and decommissioning activities will have a short term, indirect effect upon the seascape, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and OSS. The predicted magnitude of change associated with the decommissioning phase is judged to be negligible and positive as turbines and OSS will ultimately be removed from the view.
Significance of Effect during Construction Phase	Minor significance , adverse, indirect short term duration and judged to be not significant for the offshore elements of the Project. None for onshore elements of the Project.
Significance of Effect during Operational and Maintenance phase	Minor significance , adverse, indirect long term, reversible and judged to be not significant for the offshore elements of the Project.
Significance of effect during Decommissioning phase	Minor significance , adverse, indirect, short term duration as turbines are removed.

27.10.2 Landscape effects

As identified in section 27.7.2 previously, there are a number of landscape character types that fall within the boundary of the SLVIA study areas (section 27.3) associated with onshore and offshore elements of the Project. Identified landscape character types have been reviewed against the ZTV mapping (see Figure 27-6), with only those judged to experience significant theoretical visibility assessed within the following tables.

Table 27-40: Dunany, Boyne Estuary Coast.

Dunany, Boyne Estuary Coast	
Sensitivity	<p>The landfall location and a portion of the onshore cable route are located within this LCA and are considered to have a direct effect upon this LCA. Offshore elements are not located within the LCA and are therefore judged to have an indirect effect only on the LCA.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this LCA to the Project are described as:</p> <ul style="list-style-type: none"> • Landscape is undulating in nature except for Clogherhead and Castlecoo Hill; • Clogherhead forms a dominant promontory in western, southern, and eastern views from within the LCA; • Variable field pattern with large field pattern within the flat landscape and smaller field patterns within more elevated land at Almondstown and Glaspistol; • Extensive sandy beach from entirety of coastline with dune formations between Clogherhead and Baltray; and • Clogherhead forms an AONB, whilst lands at Ganderstown identified as being of High Scenic Quality. <p>The landscape comprises relatively flat farmland with field patterns defined in many cases by mature hedgerow vegetation which also feature mature hedge trees. The landscape is in relatively good condition and of some considerable scenic quality especially at the coast. At the coast, this landscape overlooks the Irish Sea and the mountains further north along the Carlingford Peninsula and Mourne further afield along with Clogherhead, designated as an AONB. Once a holiday resort, Clogherhead has now</p>

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Dunany, Boyne Estuary Coast

	<p>become a permanent settlement in its own right, whilst Baltray forms a seaside village with a lot of its old character of small houses and cottages still largely intact. Agriculture is mixed tillage and pasture where farm holdings are generally larger. The road network in the area is set out in a grid like pattern of north/south and east/west which allows for easy access to the beaches in the area. Caravan parks and chalet developments have evolved over the years in proximity to the beaches with isolated housing very evident throughout the area.</p> <p>Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the LCA to the Project is judged to be high.</p> <p>Portions of the LCA fall within areas identified as either AONB or High Amenity Areas which is valued together with its recreational use. The landscape is valued for its scenic quality especially at the coast and the general good condition and absence of detractors. The AHSQ 5 Dunany designation applies to nearly all of this LCA, within the SLVIA Study Area, and also contributes to value. The coastal part of this landscape is of lower tolerance to the proposed change whilst further inland, a higher tolerance to the proposed change arises due to the visual screening afforded by existing hedgerows. The overall value of the LCA is judged to be high.</p> <p>Based on the susceptibility and value attached to this LCA, the overall sensitivity is judged to be high.</p>
<p>Magnitude of Change – Construction Phase</p>	<p>Part of the onshore cable route, measuring approximately 5.8 km in length and including joint bays 23 - 29, and the transition joint bay would extend through this LCA from Clonmore to the coast south of Dunany Point. Construction plant and machinery will be temporarily present in this landscape. Direct effects arising as a consequence of localised vegetation loss, including roadside verge and hedgerow along the length of the onshore cable route and at joint bays. 23-29, and the transition joint bay from Clonmore (west of Togher) to the coast, south of Dunany Point will arise.</p> <p>The proposed HDD crossing of two small streams west of the Togher Crossroads and related construction activities will also arise in this LCA.</p> <p>Construction activities associated with the onshore cable route will be partially visible in the surrounding landscape albeit with localised screening by wooded vegetation. The areas of this LCA that will be affected include the coastal farmland southeast of the onshore cable route in the townlands of Nicholastown, Roadstown and Port. Construction activities associated with the stream crossing west of Togher (i.e. Port stream) will be scarcely visible in the landscape immediately surrounding this site due to the screening afforded by hedgerows close to the site.</p> <p>The construction activities associated with the landfall including the sea based construction traffic would also be apparent from the coastline, in particular along the beach south of Dunany Point.</p> <p>The predicted magnitude of change associated with the construction phase activities associated with the landfall location and the onshore cable route are judged to be localised and small.</p> <p>Sea based construction traffic and construction activities associated with the wind turbines, OSS and cable laying associated with the Project will have a short term, and indirect effect upon the LCA. Theoretical visibility of offshore elements is variable within this LCA, with the most extensive area of visibility limited to eastern areas between Clogherhead and Dunany Point, though impacts are limited by existing vegetation cover and localised changes in topography.</p> <p>The predicted magnitude of change associated with the construction phase activities associated with the offshore elements of the Project are judged to be indirect, localised and large, as the character of the LCA beyond the coastal edges will remain unaltered.</p>
<p>Magnitude of Change – Operational and Maintenance phase</p>	<p>During the operational and maintenance phase associated with the Project, the predicted magnitude of change associated with the onshore cable route and landfall location will be negligible as cables will be buried, landform reinstated and localised instances of vegetation removal will be replaced with locally appropriate hedgerow and tree species.</p>

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Dunany, Boyne Estuary Coast

	The predicted magnitude of change associated with the offshore elements of the Project during the operational and maintenance phase is judged to be indirect, large and limited to localised portions of the LCA immediately adjacent to the coast.
Magnitude of Change – Decommissioning phase	Decommissioning activities will have a short term, indirect effect upon the LCA, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and OSS. In order to negate effects on landscape features such as hedgerows, it is proposed to pull buried sections of onshore cable between joint bay locations in order to prevent impacts on what will be established vegetation. The predicted magnitude of change associated with the decommissioning of the offshore elements is judged to be large and positive as turbines and OSS will ultimately be removed from the view. The predicted magnitude of change associated with the decommissioning of the onshore elements is judged to be localised, beneficial and small.
Significance of Effect during Construction Phase	Minor to moderate significance , adverse, direct, short term duration and judged to be not significant for the landfall location and portions of the onshore cable route that fall within the LCA. Major to substantial significance , adverse, localised indirect, short term duration and judged to be significant for the offshore elements of the Project upon coastal portions of the LCA only.
Significance of Effect during Operational and Maintenance phase	Major to substantial significance , adverse, localised indirect long term duration and reversible. Effects are judged to be significant for offshore elements of the Project upon coastal portions of the LCA only.
Significance of Effect during Decommissioning phase	Major to substantial significance , adverse, localised indirect, short duration and judged to be significant as wind turbines and OSS are removed. Minor to moderate significance , direct, short term duration and judged to be not significant for the landfall location and portions of the onshore cable route that fall within the LCA.

Table 27-41: Muirhevna Plain.

Muirhevna Plain	
Sensitivity	<p>The onshore cable route and onshore substation are located within this LCA and are considered to have a direct effect upon this LCA. Offshore elements are not located within the LCA and are therefore judged to have an indirect effect only on the LCA.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this LCA to Project are described as:</p> <ul style="list-style-type: none"> • Extensive areas of agricultural land defined by hedgerows; • Scattered woodland planting throughout the LCA; • Strong sense of enclosure produced by existing vegetation cover; • Contains broadleaf wooded areas around country houses; • Contains the main M1 transport corridor; • Contains large urban areas at Dundalk, Ardee with smaller settlements scattered throughout the LCA; and • LCA crossed by a strong network of local and regional roads including the N2. <p>This LCA is the largest LCA in Louth, extending from the top of the Boyne Valley in the south up to and including the urban form of Dundalk in the north. Within the western portion of the LCA, a strong sense of enclosure is provided by the small field pattern defined by mature hedgerows and trees which limits views. The M1 corridor traverses north to south through the whole of the LCA whilst the N2 traverses east -west through the central portion of the LCA and both of these corridors locally influence the character of the landscape. The LCA is traversed by a number of overhead power lines carried by large scale pylons, whilst communication masts form localised points of visual interest.</p>

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Muirhevna Plain

	<p>Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the LCA to the Project is judged to be medium.</p> <p>This LCA is not covered by any landscape designations, though a number of views and prospects are located within the LCA and as such the LCA is valued at a local level. The overall value of the LCA is judged to be medium.</p> <p>Based on the susceptibility and value attached to this LCA, the overall sensitivity is judged to be medium.</p>
<p>Magnitude of Change – Construction Phase</p>	<p>Construction phase activities associated with the onshore substation will be present in this LCA at Stickillin. Construction activities associated with the section of the onshore cable route, measuring approximately 15 km in length and including joint bays 1 - 22 would extend through this LCA between Stickillin and Clonmore. Temporary, localised, direct impacts will arise as a result of vegetation loss and the temporary presence of construction plant and machinery in the landscape.</p> <p>Construction activities associated with road, rail and watercourse crossings will also be present in this LCA as follows;</p> <ul style="list-style-type: none"> • HDD crossing of the River Dee at Richardstown, west of the M1 Motorway including construction activities, site compound and consequent temporary vegetation loss; • HDD Crossing of the M1 Motorway and the Dublin to Belfast Railway Line including construction activities, site compound and consequent temporary vegetation loss; and • HDD crossing of the River Dee at Drumcar Bridge including construction activities, site compound and consequent temporary vegetation loss. <p>Within the Muirhevna Plain, the onshore cable route will extend along and adjacent to the N33 road and along the minor road east of the M1 Motorway and rail line. Grass verge, hedgerow and in some cases mature tree removal will arise to facilitate the cable installation including joint bays 1 – 22 and associated working areas and passing bays. The onshore cable route construction works will cross the designed landscape associated with Charleville House resulting in localised loss of a short section of hedgerow. Mature roadside trees within this section will be retained as works are within the existing road network.</p> <p>Construction activities associated with the HDD crossing of the River Dee, west of the M1 Motorway will be apparent in a small area of farmland adjacent to the existing river crossing and northwards in the vicinity of Stabannan. Construction activities associated with the HDD crossing of the M1 Motorway and the Dublin to Belfast Railway Line will be apparent over a very limited area of landscape due to the presence of existing mature hedgerows and motorway planting which will visually screen the works. Small areas of farmland located to the north of the works will be affected. Construction activities associated with the River Dee crossing at Drumcar Bridge will be mostly screened from view by mature hedgerows and mature woodland within Drumcar House. Construction activities on the western side of the crossing will be apparent in a small area of farmland to the northwest near Mullinacross. The onshore cable route construction works along the N33 will be screened from view from the south by roadside vegetation along this route and also within the farmland generally. The onshore cable route construction works including HDD crossing of the motorway and railway line will be partially apparent in the farmed landscape east of the M1 Motorway and railway line. Partial screening will be afforded by hedgerow vegetation in the farmland generally. In areas where woody vegetation is scarce or absent, the construction activities will be partly visible, in particular in the vicinity of Coneyburrow, Corstown and Plunketsland.</p> <p>The construction phase activities associated with the onshore substation will be locally visible, though not prominent within the wider LCA due to screening provided by field boundary vegetation and surrounding woodland areas such that only upper portions of large-scale plant and machinery and constructed project components will be visible. Construction activities will become locally apparent in the surrounding farmed landscape to the north of the N33. Existing vegetation will provide screening of the proposed construction works with predicted indirect effects reducing with increasing distance from the Project. Construction traffic will be perceived on the N33 as additional traffic movement as they enter and leave the onshore substation site.</p> <p>The predicted magnitude of change associated with the construction phase activities for the onshore cable route and onshore substation are judged to be localised and small.</p>

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Muirhevna Plain

	<p>Sea based construction traffic and construction activities associated with the wind turbines, OSS and cable laying will have a short term, indirect effect upon the LCA. Visibility of the Project is restricted by intervening vegetation, with the LCA heavily influenced by the existing transport corridor.</p> <p>The predicted magnitude of change associated with the construction phase activities associated with the offshore elements of the Project are judged to be indirect, localised and small, as the character of the LCA will remain unaltered.</p>
Magnitude of Change – Operational and Maintenance phase	<p>During the operational and maintenance phase, the predicted magnitude of change associated with the onshore cable route will be negligible as cables will be buried, landform reinstated, and localised instances of vegetation removal will be replaced with locally appropriate hedgerow and tree species.</p> <p>During the operational and maintenance phase associated with the Project, the predicted magnitude of change associated with the onshore substation will be localised and small as new built form is largely screened by surrounding vegetation and soon becomes difficult to distinguish within the wider LCA.</p> <p>The predicted magnitude of change associated with the offshore elements of the Project during the operational and maintenance phase is judged to be indirect, localised and negligible as the character of the LCA will remain unaltered.</p>
Magnitude of Change – Decommissioning phase	<p>Decommissioning activities will have a short term, direct effect upon the LCA, similar to that predicted to occur during the construction phase of the onshore substation only as buried cables will be removed sectionally, pulled through between joint bay to prevent impact on what will be established vegetation.</p> <p>The predicted magnitude of change associated with the decommissioning of the onshore substation is considered to be localised, small and positive as the substation is removed, and the field returned to previous use.</p> <p>Sea based traffic and decommissioning activities associated with the offshore elements of the Project will have a short term, indirect effect upon the LCA, similar to that predicted to occur during the construction phase, though will result in the removal of the turbines and offshore substation.</p> <p>The predicted magnitude of change associated with the decommissioning phase associated with the offshore elements is judged to be small.</p>
Significance of Effect during Construction Phase	<p>Minor significance, localised, adverse and direct, short term effects predicted to occur to portions of the LCA within the site boundary associated with the onshore substation.</p> <p>Minor significance, localised, adverse, indirect and short term, judged to be not significant for the offshore elements of the Project.</p>
Significance of Effect during Operational and Maintenance phase	<p>Negligible to minor significance, adverse, localised direct, judged to be not significant for portions of the LCA containing the onshore cable route.</p> <p>Minor significance, adverse, localised and direct long term effects predicted to occur to portions of the LCA associated with the onshore substation site.</p> <p>Negligible to minor significance, adverse, localised indirect and long term effects, judged to be not significant for the offshore elements of the Project.</p>
Significance of effect during decommissioning phase	<p>Minor significance, adverse, localised and direct, short term effects predicted to occur to portions of the LCA within the site boundary associated with the removal of the onshore substation and buried cable sections.</p> <p>Minor significance, adverse, localised indirect and short term, judged to be not significant for the offshore elements of the Project.</p>

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Table 27-42: Dundalk Bay Coast.

Dundalk Bay Coast	
Sensitivity	<p>None of the elements associated with the Project are located within this LCA and effects are indirect only as the LCA occurs approximately 10.6 km from the nearest wind turbine.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this LCA to the Project are described as:</p> <ul style="list-style-type: none"> • The LCA is relatively flat and not higher than 20 m ordnance datum (OD); • Large scale field pattern well defined by hedgerows with instances of mature trees; • Main settlements of Blackrock, Dromiskin, Annagassan and Castlebellingham located within the LCA; and • M1 road corridor located with the LCA with strong network of regional and local roads locally influencing the LCA. <p>This is a relatively flat farmed landscape which is intact and in good condition with few detractors present. Hedgerow vegetation and areas of woodland feature throughout the farmed landscape providing visual enclosure and limiting long range views across the landscape. At the coast, this landscape overlooks Dundalk Bay and the mountains further north along the Carlingford Peninsula and Mourne further afield along with Dunany Point.</p> <p>Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the LCA to the Project is judged to be medium.</p> <p>The coastal outlook contributes to the scenic quality of the LCA overall which is valued together with its recreational use. The AHSQ 5 Dunany designation applies to this LCA, within the SLVIA Study Area, and contributes to the value of this landscape. The coastal part of this landscape is of lower tolerance to change whilst further inland, a higher tolerance arises due to the visual screening afforded by existing hedgerows and woodland.</p> <p>Portions of this LCA are covered by landscape designations and as such the LCA is valued at a local level. The overall value of the LCA is judged to be high.</p> <p>Based on the susceptibility and value attached to this LCA, the overall sensitivity is judged to be high.</p>
Magnitude of Change – Construction Phase	<p>Construction phase activities associated with the landfall location and onshore cable route are not located within the LCA, though do fall within close proximity to the southern boundary of the LCA Dunany Point. Construction activities associated with the onshore cable route will be scarcely apparent in this LCA. This is due to extensive screening afforded by existing woodland in the vicinity of Dunany. The effects on landscape character arising from the construction of the onshore cable would be very limited. Some effects on the coastal edge of this LCA would arise due to the visibility of intermittent passing sea traffic associated with the landfall connections and site, though such effects would be experienced in the short term.</p> <p>The predicted magnitude of change associated with the construction phase activities associated with the landfall location and onshore cable route is judged to be indirect, localised and negligible.</p> <p>Sea based construction traffic and construction activities associated with the construction of the wind turbines, OSS and offshore cable laying associated with the Project will have a short term, indirect effect upon the LCA. Localised intervisibility from within the LCA towards the coast becomes restricted due to screening effects of vegetation which further reduces the indirect effects predicted to occur during the construction phase of the Project.</p> <p>The predicted magnitude of change associated with the construction phase activities associated with the offshore elements of the Project are judged to be indirect, localised and large, as the character of the LCA beyond the coastal edges will remain unaltered.</p>

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Dundalk Bay Coast

Magnitude of Change – Operational and Maintenance phase	<p>During the operational and maintenance phase the predicted magnitude of change associated with the onshore cable route will be negligible as cables will be buried, landform reinstated, and localised instances of vegetation removal will be replaced with locally appropriate hedgerow and tree species.</p> <p>During the operational and maintenance phase associated with the Project, the predicted magnitude of change associated with the OSS and turbines will be indirect, localised, and large as new elements will form a prominent feature in eastern views from coastal areas, but soon become screened by intervening vegetation as the viewer moves further inland, away from coastal areas.</p>
Magnitude of Change – Decommissioning phase	<p>Sea based traffic and decommissioning activities associated with the offshore elements of the Project will have a short term, indirect effect upon the LCA, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase associated with the offshore elements is judged to be indirect, localised and large.</p> <p>The predicted magnitude of change associated with the decommissioning phase activities associated with the landfall location and onshore cable route are judged to be indirect, localised, and negligible.</p>
Significance of Effect during Construction Phase	<p>Minor significance, indirect, adverse, and short duration judged to be not significant associated with the landfall location and onshore cable route works.</p> <p>Major to substantial significance, indirect, adverse localised long term duration reversible and judged to be significant for coastal areas of the LCA.</p>
Significance of Effect during Operational and Maintenance phase	<p>Minor significance, indirect, adverse effects judged to be not significant associated with the landfall location and onshore cable route works.</p> <p>Major to substantial significance, localised, adverse, indirect long term duration and judged to be significant for offshore elements of the Project upon coastal portions of the LCA only.</p>
Significance of effect during Decommissioning phase	<p>Minor significance, indirect, short duration effects judged to be not significant associated with the landfall location and onshore cable route works.</p> <p>Major to substantial significance, adverse, indirect localised short term duration judged to be not significant for coastal areas of the LCA as turbinised as removed.</p>

Table 27-43: Uplands of Collon, Monasterboice.

Uplands of Collon, Monasterboice

Sensitivity	<p>None of the elements associated with the Project are located within this LCA and effects are judged to be indirect only as the LCA occurs approximately 18.8 km from the nearest wind turbine.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this LCA to the Project are described as:</p> <ul style="list-style-type: none"> • The LCA forms an elevated plateau; • M1 corridor is an influence on southern portions of the LCA; • Small to medium scale farmland with fields well defined by hedgerows; • Variable size and scale field pattern interspersed with wooded and coniferous plantation often located on more elevated slopes and less fertile lands; and • Mount Oriel forms a localised elevated hill, though a number of communication mast tend to degrade elevated landscape. <p>This LCA comprises an upland landscape with glimpse views towards lowland farmland within the LCA to the north from elevated hilltops where breaks in existing hedgerow vegetation occur. Due to the extensive mature hedgerow and woodland cover in this LCA, it is judged to have considerable capacity to absorb development of the nature and scale such as that of the Project.</p>
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Uplands of Collon, Monasterboice

	<p>Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the LCA to the Project is judged to be medium.</p> <p>Portions of the LCA fall within areas identified and valued landscape and in this regard a very small part of this LCA is designated as AHSQ 4 Collon Uplands and the overall value of the LCA is judged to be medium.</p> <p>Based on the susceptibility and value attached to this LCA, the overall sensitivity is judged to be medium.</p>
Magnitude of Change – Construction Phase	<p>The onshore components of the Project and associated construction activities will not be apparent within this LCA due to screening provided by intervening topographical changes and vegetation cover. Although the elevated parts of this LCA are visually open, affording panoramic views of the lowlands further north, extensive screening afforded by existing woodland and hedgerows is such that onshore construction activities would be difficult to perceive in northern views.</p> <p>Sea based construction traffic and construction activities associated with the construction of the OSS and turbines will have a short term, localised indirect effect upon the LCA, though intervisibility from within the LCA towards the coast is limited due to screening effects of vegetation.</p> <p>Overall, the predicted magnitude of change associated with the construction phase is judged to be negligible as the character of the LCA will remain unaltered.</p>
Magnitude of Change – Operational and Maintenance phase	<p>During the operational and maintenance phase, the offshore components of the Project will form a distinct feature in eastern views from within the LCA where open views are available. Visibility of the Project is largely restricted by intervening topographical changes and screening provided by vegetation.</p> <p>The predicted magnitude of change associated with the operational and maintenance phase of the Project is judged to be negligible as the character of the LCA is not directly affected by the Project.</p>
Magnitude of Change – Decommissioning phase	<p>Sea based traffic and decommissioning activities will have a short term, indirect effect upon the LCA, similar to that predicted to occur during the construction phase, though will result in the removal of the turbines and the OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase is judged to be negligible.</p>
Significance of Effect during Construction Phase	Negligible to minor significance , adverse, indirect, short duration and judged to be not significant.
Significance of Effect during operational and maintenance phase	Negligible to minor significance ,,, adverse, indirect, long term duration, reversible judged to be not significant.
Significance of Effect during Decommissioning phase	Negligible to minor significance ,, indirect, adverse, short duration judged to be not significant as turbines are removed.

Table 27-44: Lough Drumlin and Lake Areas.

Lough Drumlin and Lake Areas

Sensitivity	<p>None of the elements associated with the Project are located within this LCA and effects are judged to be indirect only as the LCA occurs approximately 26.7 km from the nearest wind turbine.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this LCA to the Project are described as:</p> <ul style="list-style-type: none"> • Southeastern tip of the large drumlin landscape which extends into Ulster and Connacht; • Strong sense of enclosure provided by undulating landform with little intervisibility with coastal areas to the east; • Overhead power lines are a prominent feature of the landscape; and
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Lough Drumlin and Lake Areas

	<ul style="list-style-type: none"> Trees and woodland copses on hill tops form strong focal points. <p>This LCA is comprised of a variety of landscape scales; with small to medium scaled field sizes well defined by mature hedgerows. This LCA is of some landscape quality, though it is influenced by the regional and local road networks radiating out from Dundalk to the east. There is little intervisibility with coastal areas, further east, as a consequence of the drumlin landscape, with the majority of the LCA not experiencing coastal views. Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the LCA to the Project is judged to be low.</p> <p>This LCA is not covered by any landscape designations and as such the LCA is valued at a local level. The overall value of the LCA is judged to be low.</p> <p>Based on the susceptibility and value attached to this LCA, the overall sensitivity is judged to be low.</p>
Magnitude of Change – Construction Phase	<p>The onshore components of the Project and associated construction activities will not be visible from within this LCA due to screening provided by intervening topographical changes and vegetation cover.</p> <p>Sea based construction traffic and construction activities associated with the construction of the OSS and turbines will have a short term, localised indirect effect upon the LCA, though intervisibility from within the LCA towards the coast is limited due to screening effects of vegetation coupled with the undulating, drumlin landscape.</p> <p>Overall, the predicted magnitude of change associated with the construction phase is judged to be negligible as the character of the LCA will remain unaltered.</p>
Magnitude of Change – Operational and maintenance phase	<p>During the operational and maintenance phase, the offshore components of the Project will form a minor feature in eastern views from within the LCA where open views are available. Visibility of the Project is largely restricted by intervening topographical changes and screening provided by vegetation.</p> <p>The predicted magnitude of change associated with the operational and maintenance phase of the Project is judged to be negligible as the character of the LCA is not directly affected by the Project.</p>
Magnitude of Change – Decommissioning phase	<p>Sea based traffic and decommissioning activities will have a short term, indirect effect upon the LCA, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and the OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase is judged to be negligible.</p>
Significance of Effect during Construction Phase	Negligible to minor significance , adverse, indirect, short duration judged to be not significant.
Significance of Effect during Operational and Maintenance phase	Negligible to minor significance , adverse, indirect, long term duration, reversible judged to be not significant.
Significance of Effect during Decommissioning phase	Negligible to minor significance , adverse, indirect, short duration and not significant as turbines are removed.

Table 27-45: Lower Faughart, Castletown & Flurry River Basins.

Lower Faughart, Castletown & Flurry River Basins

Sensitivity	<p>None of the elements associated with the Project are located within this LCA and effects are judged to be indirect only as the LCA occurs approximately 26.7 km from the nearest wind turbine.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this LCA to the Project are described as:</p> <ul style="list-style-type: none"> Extensive views northwards towards Slieve Gullion, Feede and Carlingford Mountains;
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Lower Faughart, Castletown & Flurry River Basins

	<ul style="list-style-type: none"> • Gateway to the Carlingford peninsula, making for an attractive area for tourists; • LCA influenced locally by M1, N1 transport corridors; and • Well vegetated landscape with woodland, hedgerows and mature roadside vegetation including trees. <p>This LCA is comprised of a variety of landscape scales; with small to large scale field sizes well defined by mature hedgerows. The LCA is of some landscape quality, though is influenced by extensive network of regional and local road with linear development forming a prominent feature radiating out from Dundalk to the south of the LCA. The wooded slopes of Trumpet Hill form a localised landmark, but its dominance is reduced against the higher elevation mountains beyond. There is little intervisibility with coastal areas, further east, as a consequence of the well vegetated landscape. Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the LCA to the Project is judged to be medium.</p> <p>Eastern portions of the LCA fall within the AHSQ 1 Feede Mountains and Cooley designation and as such the LCA is valued at a local level. The overall value of the LCA is judged to be medium.</p> <p>Based on the susceptibility and value attached to this LCA, the overall sensitivity is judged to be medium.</p>
Magnitude of Change – Construction Phase	<p>The onshore components of the Project and associated construction activities will not be visible from within this LCA due to screening provided by intervening topographical changes and vegetation cover.</p> <p>Sea based construction traffic and construction activities associated with the construction of the OSS and turbines will have a short term, localised indirect effect upon coastal areas of the LCA only as views of the coast from within the LCA are generally well screened by intervening vegetation cover.</p> <p>Overall, the predicted magnitude of change associated with the construction phase is judged to be negligible as the character of the LCA will remain unaltered.</p>
Magnitude of Change – Operational and Maintenance phase	<p>During the operational and maintenance phase, the offshore components of the Project will form a minor feature in eastern views from within localised coastal areas of the LCA where open views are available. Visibility of the Project is restricted by intervening topographical changes and screening provided by vegetation.</p> <p>The predicted magnitude of change associated with the operational and maintenance phase of the Project is judged to be negligible as the character of the LCA is not directly affected by the Project.</p>
Magnitude of Change – Decommissioning phase	<p>Sea based traffic and decommissioning activities will have a short term, indirect effect upon the LCA, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and the OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase is judged to be negligible.</p>
Significance of Effect during Construction Phase	Negligible to minor significance , adverse, indirect, short duration judged to be not significant.
Significance of Effect during Operational and Maintenance phase	Negligible to minor significance , adverse, indirect, long term duration, reversible judged to be not significant.
Significance of Effect during Decommissioning phase	Negligible to minor significance , adverse, indirect, short duration and not significant as turbines are removed.

Table 27-46: Cooley Lowlands & Coastal Areas.

Cooley Lowlands and Coastal Areas

Sensitivity	None of the elements associated with the Project are located within this LCA and effects are judged to be indirect only as the LCA occurs approximately 6 km from the nearest wind turbine.
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Cooley Lowlands and Coastal Areas

	<p>Key characteristics which have informed an understanding of the susceptibility of this LCA to the Project are described as:</p> <ul style="list-style-type: none"> • A dramatic and gently sloping landscape at the base of the Carlingford and Slieve na Gloch Mountains; • Small field pattern well defined by hedgerows; • Extensive views of the Cooley and Mourne Mountains and south across Dundalk Bay; and • Quarrying activities are a prominent feature in the landscape. <p>This LCA forms part of the eastern tip of the Carlingford Peninsula, and whilst relatively flat does form a transitional landscape between the coast and the Carlingford Mountains to the north. The R173 forms the main transport corridor through the LCA, from which panoramic views of the Carlingford and Mourne Mountain ranges are afforded and form the main visual draw. Coastal views of Dundalk Bay from the R173 are available but generally limited in extent and often screened by intervening topographical changes and vegetation cover. Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the LCA to the Project is judged to be medium.</p> <p>Portions of the LCA fall within the AHSQ 1 Feede Mountains and Cooley AHSQ designation and there are a number of scenic routes and prospects within the LCA such that the LCA is valued at a regional level. The overall value of the LCA is judged to be high.</p> <p>Based on the susceptibility and value attached to this LCA, the overall sensitivity is judged to be high.</p>
Magnitude of Change – Construction Phase	<p>The onshore components of the Project and associated construction activities will not be visible from within this LCA due to screening provided by intervening topographical changes and vegetation cover.</p> <p>Sea based construction traffic and construction activities associated with the construction of the OSS and turbines will have a short term, localised indirect effect upon coastal areas of the LCA only as views of the coast from within the LCA are generally screened by intervening vegetation cover coupled with localised topographical changes.</p> <p>Overall, the predicted magnitude of change associated with the construction phase is judged to be localised and large for coastal areas.</p>
Magnitude of Change – Operational and Maintenance phase	<p>During the operational and maintenance phase, the offshore components of the Project will form a prominent feature in southern views from coastal areas whilst visibility of the Project is restricted by intervening topographical changes and screening provided by vegetation further inland.</p> <p>The predicted magnitude of change associated with the operational and maintenance phase of the Project is judged to be localised and large for coastal areas.</p>
Magnitude of Change – Decommissioning phase	<p>Sea based traffic and decommissioning activities will have a short term, indirect effect upon the LCA, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and the OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase is judged to be large.</p>
Significance of Effect during Construction Phase	<p>Major to substantial significance, adverse, indirect, short duration and considered to be locally significant.</p>
Significance of Effect during Operational and Maintenance phase	<p>Major to substantial significance, adverse, indirect, long term duration, reversible and locally significant for offshore elements of the Project only.</p>
Significance of Effect during Decommissioning phase	<p>Major to substantial significance, adverse indirect, short duration and considered to be locally significant as turbines are removed.</p>

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Table 27-47: Carlingford Lough, Mountains including West Feede Uplands.

Carlingford Lough, Mountains including West Feede Uplands	
Sensitivity	<p>None of the elements associated with the Project are located within this LCA and effects are judged to be indirect only as the LCA occurs approximately 9 km from the nearest wind turbine.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this LCA to the Project are described as:</p> <ul style="list-style-type: none"> • A dramatic mountainous area where the visual impact is increased, by its location on a peninsula; • Open moorland on higher elevations; • Imposing Lough between the Cooley and Mourne Mountain ranges; • An intimate road network, offering a variety of landscapes within a small area; and • Large pockets of coniferous forestry. <p>This LCA forms the majority of the Carlingford peninsula and has two very well defined ridges at Aghnameen and Windy Gap which present a dramatic change in landscape as one approaches from both the south and north. Slieve Foye and Black mountain are separated by steeply sloping valleys. Large tracts of coniferous forestry plantation occur on mid elevation slopes throughout the LCA offering a contrast to the more open heathland of higher elevation slopes. Medium to small scale field pattern to lower elevation slopes primarily used for grazing with field boundaries well defined by hedgerows. Mixed coniferous plantings around scattered residential homes provide localised screening and shelter within the valley landscapes. The R173 forms the main transport route through the LCA, though local roads traversing through the valley between Slieve Foye and Slievenagloch provide connectivity to increasing linear residential development. Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the LCA to the Project is judged to be high.</p> <p>A large portion of the LCA falls within the AONB designation, with remaining portions covered by AHSQ designation. There are 18 scenic routes and 5 protected views listed within the LCA. The overall value of the LCA is judged to be very high.</p> <p>Based on the susceptibility and value attached to this LCA, the overall sensitivity is judged to be high.</p>
Magnitude of Change – Construction Phase	<p>The onshore components of the Project and associated construction activities will be difficult to discern in views from within the LCA, particularly from more open elevated locations. Onshore construction phase activities will not be visible in views from lower elevation lands due to screening provided by intervening topographical changes and vegetation cover.</p> <p>Sea based construction traffic and construction activities associated with the construction phase of the OSS and turbines will have a short term, localised indirect effect upon southern facing, elevated slopes of the LCA as views towards the coast become more open in nature. Lower elevation lands within the LCA are generally screened by intervening vegetation cover coupled with topographical changes.</p> <p>Overall, the predicted magnitude of change associated with the construction phase is judged to be localised, indirect and medium.</p>
Magnitude of Change – Operational and Maintenance phase	<p>During the operational and maintenance phase, the offshore components of the Project will form a distinct feature in southern views from elevated, open lands, whilst visibility of the Project is restricted by intervening topographical changes and screening provided by vegetation further inland, and in valley areas. Whilst the Project will be visible in southern views, visible elements will be read against the background of the open sea and not set against the skyline. The location of the sun in the sky will be predominantly to the south of the WTGs resulting in the northern elevation being backlit (i.e. in shadow) which reduces the prominence of the operational Project in views.</p> <p>The predicted magnitude of change associated with the operational and maintenance phase of the Project is judged to be indirect, localised and medium.</p>

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Carlingford Lough, Mountains including West Feede Uplands

Magnitude of Change – Decommissioning phase	Sea based traffic and decommissioning activities will have a short term, indirect effect upon the LCA, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and OSS. The predicted magnitude of change associated with the decommissioning phase is judged to be medium.
Significance of Effect during Construction Phase	Moderate to major significance , adverse, indirect, short duration and judged to be not significant.
Significance of Effect during Operational and Maintenance phase	Moderate to major significance , adverse, indirect, long term duration, reversible and judged not significant.
Significance of Effect during Decommissioning phase	Moderate to major significance , adverse, indirect, short duration with turbines and OSS removed and judged to be not significant.

Table 27-48: Coastal Plain (Meath).

Coastal Plain

Sensitivity	<p>None of the elements associated with the Project are located within this LCA and effects are judged to be indirect only as the LCA occurs approximately 20.7 km from the nearest wind turbine.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this LCA to the Project are described as:</p> <ul style="list-style-type: none"> • Mix of small to medium field sizes; • Stands of pine and mixed woodland adjacent to estuaries; • The River Boyne estuary forms a shipping route to Drogheda; and • Bettystown and Laytown form the main settlements within the LCA. <p>Within the SLVIA Study area, the LCA forms two physically separated areas on the eastern coastline of County Meath, with physical separation provided by the Nanny Valley LCA. The area is characterised by scrubby rolling lowland near the coast interspersed with stands of pine. The main transport route is the M1 from Balbriggan to Drogheda, which crosses western portions of both occurrences of the LCA. Regional and local roads cross the LCA providing further connectivity between the main urban areas. Built development is concentrated along the coast with a variety of mixed-use retail units, hotels and restaurants. The majority of residential development is in the form of ribbon development with concentrations of modern development adjacent to the main settlements of Bettystown, Laytown, Morningstown and Julianstown. The small to medium scaled fields within the LCA are generally well defined by hedgerows and hedgerows with trees, which provide a sense of enclosure in areas away from the coast, such that views of the coast and sea are screened from large portions of the LCA. Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the LCA to the Project is judged to be high.</p> <p>None of the LCA within the SLVIA study area is covered by designation, however the LCA is valued at a regional level due to its coastal nature and access to beach areas. The overall value of the LCA is judged to be medium.</p> <p>Based on the susceptibility and value attached to this LCA, the overall sensitivity is judged to be medium.</p>
Magnitude of Change – Construction Phase	<p>The onshore components of the Project and associated construction activities will not be visible from within the LCA due to intervening topographical changes and screening provided by vegetation.</p> <p>Sea based construction traffic and construction activities associated with the construction phase of the offshore substation, turbines and landfall location will be visible in northern views from coastal areas only and are judged to have a short term, localised indirect effect as such activities are partially screened by intervening headland at Clogher Point.</p>

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Coastal Plain	
	<p>Sea based construction activities will be screened from views further inland due to screening provided by the undulating nature of the topography, coupled with the existing vegetation cover.</p> <p>Overall, the predicted magnitude of change associated with the construction phase is judged to be localised, indirect and small.</p>
Magnitude of Change – Operational and Maintenance phase	<p>During the operational and maintenance phase, the offshore components of the Project will form a new feature in northern views from coastal areas only, whilst visibility of the Project is restricted by intervening topographical changes and screening provided by vegetation further inland. Whilst the Project will be visible from localised areas immediately adjacent to the coastline, visible elements form a minor addition within the expansive views afforded.</p> <p>The predicted magnitude of change associated with the operational and maintenance phase of the Project is considered to be indirect, localised and small as the character and nature of the coastal areas remains largely unaltered.</p>
Magnitude of Change – Decommissioning phase	<p>Sea based traffic and decommissioning activities will have a short term, indirect effect upon the LCA, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase is judged to be localised, indirect and small.</p>
Significance of Effect during Construction Phase	Minor significance , adverse, indirect, short duration and judged to be not significant.
Significance of Effect during Operational and Maintenance phase	Minor significance , adverse, indirect, long term duration, reversible and judged not significant.
Significance of Effect during Decommissioning phase	Minor significance , adverse, indirect, short duration with turbines and OSS removed and judged to be not significant.

Table 27-49: Coastal (Fingal).

Coastal	
Sensitivity	<p>None of the elements associated with the Project are located within this LCA and effects are judged to be indirect only as the LCA occurs approximately 29.4 km from the nearest wind turbine.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this LCA to the Project are described as:</p> <ul style="list-style-type: none"> • A number of important beaches found on the immediate coastal areas of the LCA; • Prominent headlands at Skerries, Rush and Portrane; and • Headlands, ridgelines and bays constrain views along the coast. <p>The Coastal Character Type forms the eastern boundary of Fingal County and contains a number of important beaches, islands and headlands that together create an intricate and varied landscape. A number of important settlements are located within this area, including Balbriggan, Skerries, Rush, Malahide, Portmarnock and Howth. The land is generally low lying, except for some prominent headlands and hills in the northern part of the area, Howth and the offshore islands.</p> <p>There are several important demesne or estate landscapes containing important woodlands in or adjoining this area at Ardgillan, Hampton, Milverton and Portrane. Horticulture (around Rush), golf courses and individual dwellings are prevalent land uses in the area also. Views along the coast are generally contained within headlands, ridgelines and harbours, creating a number of distinct visual compartments.</p> <p>Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the LCA to the Project is judged to be high.</p> <p>The LCA is categorised as having an exceptional landscape value within the Fingal CDP. This value is arrived at due to the combination of visual, ecological, recreational and historical attributes. The area's importance is highlighted by the High Amenity zoning covering substantial parts of the area. The overall value of the LCA is judged to be high.</p>

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Coastal	
	Based on the susceptibility and value attached to this LCA, the overall sensitivity is judged to be high.
Magnitude of Change – Construction Phase	<p>None of the onshore components of the Project or associated construction activities will be visible in northern views from within the LCA due to screening provided by intervening topographical changes and vegetation.</p> <p>Sea based construction traffic and construction activities associated with the construction phase of the OSS and turbines will have a short term, localised indirect effect upon northern facing, coastal areas of the LCA between Gormanston and Skerries only, as topographical changes and vegetation cover screen views further inland within the LCA.</p> <p>Overall, the predicted magnitude of change associated with the construction phase is judged to be localised, indirect and negligible.</p>
Magnitude of Change – Operational and Maintenance phase	<p>During the operational and maintenance phase, the offshore components of the Project will form a minor element within northern views only, though will be difficult to discern due to attenuation by distance and visibility. Visibility of the Project is restricted by intervening topographical changes and screening provided by vegetation further inland, such that it will not be easily perceived in views. Whilst the Project will be perceived in northern views from localised portions of the LCA with clear views north, visible elements will be read against the background of the open sea and not set against the skyline which reduces the prominence of the operational Project in views.</p> <p>The predicted magnitude of change associated with the operational and maintenance phase of the Project is judged to be indirect, localised and negligible.</p>
Magnitude of Change – Decommissioning phase	<p>Sea based traffic and decommissioning activities will have a short term, indirect effect upon the LCA, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase is judged to be negligible.</p>
Significance of Effect during Construction Phase	Minor significance , adverse, indirect, short duration and judged to be not significant.
Significance of Effect during Operational and Maintenance phase	Minor significance , adverse, indirect, long term duration, reversible and judged not significant.
Significance of Effect during Decommissioning phase	Minor significance , adverse, indirect, short duration with turbines and the OSS removed and judged to be not significant.

Table 27-50: Mourne and Slieve Croob (Northern Ireland RLCA).

Mourne and Slieve Croob	
Sensitivity	<p>None of the elements associated with the Project are located within this LCA and effects are judged to be indirect only as the LCA occurs approximately 8.4 km from the nearest wind turbine.</p> <p>Key characteristics which have informed an understanding of the susceptibility of this LCA to the Project are described as:</p> <ul style="list-style-type: none"> • The Mourne Mountains have high dramatic peaks, forming a striking backdrop to views. The Slieve Croob summits, although lower, are rugged open moorland on higher elevations; • Rough grass and heather on the high ground used for sheep grazing. Enclosure on lower slopes is geometric with field boundaries varying from characteristic drystone granite walls on higher ground to hedges on lower ground; • Conifer plantations on slopes, including Rostrevor Forest, Mourne Wood, Annalong Wood, Tollymore Forest, Castlewellan Forest and Drumkeeragh Forest. In higher areas, there are occasional trees in hedgerows on foot slopes and in glens but there are no trees on hilltops. On lower ground, there are stands of trees or field boundary trees as well as trees and woodlands associated with settlement, farmsteads or watercourses;

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Mourne and Slieve Croob

	<ul style="list-style-type: none"> • Settlement limited to lowlands with sparse farmsteads including derelict farmsteads or cottages on the fringe slopes. Small farms and traditional stone or whitewashed cottages on the lower slopes and cross the lowlands; • Panoramic views to sea and across land from hill summits and from many accessible car parks; and • A popular area for tourism, given the scenic views and archaeological and coastal interest. <p>This RLCA is located to the southeast of Northern Ireland forming an isolated and dramatic upland area. The mountains and the RLCA, which extend from the coast, include the Mourne Mountains and Slieve Roosley between Newcastle and Newry, and the area includes Slieve Croob uplands to the north. The RLCA is characterised by a series of distinctive hills emerging out of the drumlin covered lowlands of Down and Armagh. The higher Mourne Mountains lie to the south, with Slieve Croob forming a separate area of hills to the north. The Mourne Mountains are the highest hills in Northern Ireland, and terrain is rocky and steep with a thin covering of grass. The profiles of the hills are smooth and form a series of recognisable tops in views from the wider landscape. The B27 is the only road to cross the Mourne Mountains, while there are several minor roads crossing the Slieve Croob area. Between these uplands, the A25 and the A50 cross where land is lower, between east and west. Around the fringes of the upland areas, the roads form a network crossing the slopes and running up and down valleys. Within the hills is a mix of small regular, often linear fields, with some areas of irregular enclosure. Dense hedge banks with gorse are the dominant boundary. On lower ground to the south the landscape is a patchwork of small to medium regular fields bounded by stone walls or gorse hedges.</p> <p>Taking account of the above characteristics and the influence of existing manmade features within the SLVIA Study Area, the susceptibility of the LCA to the Project is judged to be high.</p> <p>A large portion of the LCA falls within the AONB designation, and the overall value of the LCA is considered to be very high.</p> <p>Based on the susceptibility and value attached to this LCA, the overall sensitivity is judged to be high.</p>
<p>Magnitude of Change – Construction Phase</p>	<p>None of the onshore components of the Project or associated construction activities will be visible in southern views from coastal portions of the LCA due to screening provided by intervening topography, vegetation, built form and attenuation by distance.</p> <p>Sea based construction traffic and construction activities associated with the construction phase of the OSS and turbines will have a short term, localised indirect effect upon southern facing, coastal portions of the LCA. Lands further inland, within the LCA which are predicted to experience theoretical visibility are often well vegetated, with hedgerows, scattered shelterbelt planting and mixed species woodland planting screening potential views of the Project.</p> <p>Overall, the predicted magnitude of change associated with the construction phase is judged to be localised, indirect and small.</p>
<p>Magnitude of Change – Operational and Maintenance phase</p>	<p>During the operational and maintenance phase, the offshore components of the Project will form a distinct feature in southern views from coastal areas, whilst visibility of the Project is restricted by intervening vegetation further inland. Whilst the Project will be visible in southern views, visible elements will be read against the background of the open sea and not set against the skyline. The location of the sun in the sky will be predominantly to the south of the WTGs resulting in the northern elevation being backlit (i.e. in shadow) which reduces the prominence of the operational Project in views.</p> <p>The predicted magnitude of change associated with the operational and maintenance phase of the Project is judged to be indirect, localised and small.</p>
<p>Magnitude of Change – Decommissioning phase</p>	<p>Sea based traffic and decommissioning activities will have a short term, indirect effect upon the LCA, like that predicted to occur during the construction phase though will result in the removal of the turbines and OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase is judged to be small.</p>
<p>Significance of Effect during Construction Phase</p>	<p>Minor to moderate significance, adverse, localised indirect, short duration and judged to be not significant.</p>

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Significance of Effect during Operational and Maintenance phase	Minor to moderate significance , adverse, localised indirect, long term duration, reversible and judged not significant.
Significance of Effect during Decommissioning phase	Minor to moderate significance , adverse, localised indirect, short duration with turbines and the OSS removed and judged to be not significant.

Table 27-51 below summarises the predicted significance of seascape and landscape effect for each of the previously assessed seascape and landscape areas.

Table 27-51: Summary of Predicted Seascape/ Landscape Effects.

Seascape/ Landscape Character Area	Predicted Construction Phase Effects	Predicted Operational and Maintenance Phase Effects	Predicted Decommissioning Phase Effects
Large Bay (Seascape)	Major to substantial significance, adverse, direct, short term duration and judged to be significant for the offshore elements of the Project. Minor significance, localised, adverse, indirect, temporary and judged to be not significant for the onshore cable laying, onshore substation and landfall location.	Major to substantial significance, adverse, direct long term, reversible and judged to be significant for wind turbines and the offshore substation.	Major to substantial significance, adverse, direct and short duration as turbines and OSS are removed. Minor significance, localised, adverse, indirect, and judged to be not significant for the onshore cable, the landfall location and the onshore substation removal.
Large open or partially open sea lough with raised hinterland (Seascape)	Major to substantial significance, adverse, direct, short term duration and judged to be significant for the offshore elements of the Project. Minor significance, localised, adverse, indirect, temporary, and judged to be not significant for offshore cable laying works and landfall location.	Major to substantial significance, adverse, direct, long term, reversible and judged to be significant.	Major to substantial significance, adverse, direct, short term duration as turbines are removed.
Low Lying Coastal plain & estuarine landscape, low lying island and peninsulas (Seascape)	Major to substantial significance, adverse, direct, short term duration and judged to be significant for northern portions of the SCA associated with the construction of the offshore elements of the Project. Minor significance, localised, adverse, temporary and judged to be not significant for the offshore cable laying works and the landfall location.	Major to substantial significance, adverse, direct long term, reversible and judged to be significant for northern portions of the SCA between Dunany Point and Clogherhead. Minor to moderate significance, adverse, indirect, long term reversible and judged to be not significant for southern portions of the SCA.	Major to substantial significance, adverse, direct, short term duration for northern portions of the SCA as turbines are removed. Minor to moderate significance, localised, adverse indirect, short term duration for southern portions of the SCA. Minor significance, localised indirect, and judged to be not significant for the onshore cable, the landfall location and onshore substation removal.
Low Lying Plateaus landscape (Seascape)	Minor significance, adverse, indirect, short term duration and judged to be not	Minor significance, adverse, indirect, long term, reversible and judged to be not	Minor significance, adverse, indirect, short term duration as turbines are removed.

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Seascape/ Landscape Character Area	Predicted Construction Phase Effects	Predicted Operational and Maintenance Phase Effects	Predicted Decommissioning Phase Effects
	significant for the offshore elements of the Project. None for the onshore elements of the Project.	significant for the offshore elements of the Project.	
Dunany, Boyne Estuary Coast LCA	Minor to moderate significance, adverse, direct, short term duration and judged to be not significant for the landfall location and portions of the onshore cable route that fall within the LCA. Major to substantial significance, adverse, localised indirect, short term duration and judged to be significant for the offshore elements of the Project upon coastal portions of the LCA only.	Major to substantial significance, adverse, localised indirect long term duration and reversible. Effects are judged to be significant for offshore elements of the Project upon coastal portions of the LCA only.	Major to substantial significance, adverse, localised indirect, short duration and judged to be significant as wind turbines and OSS are removed. Minor to moderate significance, direct, short term duration and judged to be not significant for the landfall location and portions of the onshore cable route that fall within the LCA.
Muirhevna Plain LCA	Minor significance, localised, adverse and direct, short term effects predicted to occur to portions of the LCA within the site boundary associated with the onshore substation. Minor significance, localised, adverse, indirect and short term, judged to be not significant for the offshore elements of the Project.	Negligible to minor significance, adverse, localised direct, judged to be not significant for portions of the LCA containing the onshore cable route. Minor significance, adverse, localised and direct long term effects predicted to occur to portions of the LCA associated with the onshore substation site. Negligible to minor significance, adverse, localised indirect and long term effects, judged to be not significant for the offshore elements of the Project.	Minor significance, adverse, localised and direct, short term effects predicted to occur to portions of the LCA within the site boundary associated with the removal of the onshore substation and buried cable sections. Minor significance, adverse, localised indirect and short term, judged to be not significant for the offshore elements of the Project.
Dundalk Bay Coast LCA	Major to substantial significance, indirect, adverse localised long term duration reversible and judged to be significant for coastal areas of the LCA. Minor significance, indirect, adverse, and short duration judged to be not significant associated with the landfall location and onshore cable route works.	Major to substantial significance, localised, adverse, indirect long term duration and judged to be significant for offshore elements of the Project upon coastal portions of the LCA only. Minor significance, indirect, adverse effects judged to be not significant associated with the landfall location and onshore cable route works.	Major to substantial significance, adverse, indirect localised short term duration judged to be not significant for coastal areas of the LCA as turbines are removed. Minor significance, indirect, adverse effects judged to be not significant associated with the landfall location and onshore cable route works.
Uplands of Collon, Monasterboice LCA	Negligible to minor significance, adverse, indirect, short duration and judged to be not significant.	Negligible to minor significance, adverse, indirect, long term duration, reversible judged to be not significant.	Negligible to minor significance, indirect, adverse, short duration judged to be not significant as turbines are removed.
Lough Drumlin and Lake Areas LCA	Negligible to minor significance, adverse, indirect, short duration judged to be not significant.	Negligible to minor significance, adverse, indirect, long term duration,	Negligible to minor significance, adverse, indirect, short duration and

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Seascape/ Landscape Character Area	Predicted Construction Phase Effects	Predicted Operational and Maintenance Phase Effects	Predicted Decommissioning Phase Effects
		reversible judged to be not significant.	not significant as turbines are removed.
Lower Faughart, Castletown & Flurry River Basins LCA	Negligible to minor significance, adverse, indirect, short duration judged to be not significant.	Negligible to minor significance, adverse, indirect, long term duration, reversible judged to be not significant.	Negligible to minor significance, adverse, indirect, short duration and not significant as turbines are removed.
Cooley Lowlands & Coastal Areas LCA	Major to substantial significance, adverse, indirect, short duration and considered to be locally significant.	Major to substantial significance, adverse, indirect, long term duration, reversible and locally significant for offshore elements of the Project only.	Major to substantial significance, adverse indirect, short duration and considered to be locally significant as turbines are removed.
Carlingford Lough, Mountains including West Feede Uplands LCA	Moderate to major significance, adverse, indirect, short duration and judged to be not significant.	Moderate to major significance, adverse, indirect, long term duration, reversible and judged not significant.	Moderate to major significance, adverse, indirect, short duration with turbines and OSS removed and judged to be not significant.
Coastal Plain (Meath) LCA	Minor significance, adverse, indirect, short duration and judged to be not significant.	Minor significance, adverse, indirect, long term duration, reversible and judged not significant.	Minor significance, adverse, indirect, short duration with turbines and OSS removed and judged to be not significant.
Coastal (Fingal) LCA	Minor significance, adverse, indirect, short duration and judged to be not significant.	Minor significance, adverse, indirect, long term duration, reversible and judged not significant.	Minor significance, adverse, indirect, short duration with turbines and the OSS removed and judged to be not significant.
Mourne and Slieve Croob (Down) LCA	Minor to moderate significance, adverse, localised indirect, short duration and judged to be not significant.	Minor to moderate significance, adverse, localised indirect, long term duration, reversible and judged not significant.	Minor to moderate significance, adverse, localised indirect, short duration with turbines and the OSS removed and judged to be not significant.

27.10.3 Designated landscapes effects

As identified in section 27.7.2 previously, there are a number of designated landscapes that fall within the boundary of the SLVIA study areas (section 27.3) associated with onshore and offshore elements of the Project. Identified designated landscape areas have been reviewed against the ZTV mapping, with only those judged to experience significant theoretical visibility assessed within the following tables.

Table 27-52: Carlingford and Feede Mountains AONB.

Carlingford and Feede Mountains AONB	
Sensitivity	<p>None of the elements associated with onshore or offshore elements of the Projects are located within this designated landscape and effects will be indirect only as the designation occurs.</p> <p>Found in the north of the county the AONB encompasses the Carlingford and Feede Mountains. Slieve Foye at 588 O.D and Black Mountain at 508 O.D are the highest points in the range. Much of the area remains in its natural state, covered in gorse, bracken and heather. Views are available from a number of vantage points over Carlingford Lough to the Mourne Mountains in Northern Ireland and over Dundalk Bay to the central and south of County Louth.</p>

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Carlingford and Feede Mountains AONB

	<p>The overall value of the AONB designation is judged to be high.</p> <p>Based on the susceptibility and value attached to this AONB designation, the overall sensitivity is judged to be high.</p>
Magnitude of Change – Construction Phase	<p>None of the onshore elements or associated construction activities are located within the landscape designation, and construction activities will be difficult to perceive from within the AONB.</p> <p>Sea based traffic and activities associated with Project will have a short term, localised indirect effect upon the AONB designation. Theoretical visibility is intermittent and variable across lower elevation areas of this broad designation, with limited or no visibility from large portions of the AONB. At lower elevation, screening by vegetation and intervening topography will further reduce visibility of sea-based construction activities.</p> <p>The predicted magnitude of change associated with the construction phase is judged to be negligible, as the character of the AONB will remain unaltered.</p>
Magnitude of Change – Operational and Maintenance phase	<p>During the operational and maintenance phase, the Project will form a distinct feature at distance, with turbines being perceived in southern views only from open area with unrestricted views. Intermittent sea-based activities associated with maintenance of the turbines will be read as an additional sea-based shipping movement all operational and maintenance phase effects are judged to be indirect and of a long term duration, with effects decreasing over time as the offshore elements become an established feature within southern views.</p> <p>The predicted magnitude of change associated with the operational and maintenance phase of the Project is judged to be negligible as the character of the AONB is not directly affected by the Project.</p>
Magnitude of Change – Decommissioning phase	<p>Sea based traffic and decommissioning activities associated with the Project will have a short term, indirect effect upon the AONB, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and the OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase is judged to be negligible.</p>
Significance of Effect during Construction Phase	Minor significance , adverse, indirect localised, short duration and judged to be not significant.
Significance of Effect during Operational and Maintenance phase	Minor significance , adverse, indirect localised, long term duration, reversible and judged to be not significant.
Significance of Effect during Decommissioning phase	Minor significance , adverse, indirect localised, short duration and judged to be not significant.

Table 27-53: Clogherhead and Port Oriel AONB.

Clogherhead and Port Oriel AONB

Sensitivity	<p>None of the elements associated with onshore or offshore elements of the Projects are located within this designated landscape and effects are indirect only as the designation occurs approximately 13 km southwest of the offshore elements of the Project and approximately 4.4km northwest of the onshore cable route.</p> <p>The Landscape Assessment that accompanies the Louth CDP identifies land covered by the AONB Designation as being extremely sensitive environments and therefore afforded a high degree of protection within the CDP. It is considered that the susceptibility of the AONB designation to the Project is high.</p> <p>The overall value of the AONB designation is judged to be high.</p> <p>Based on the susceptibility and value attached to this AONB designation, the overall sensitivity is judged to be high.</p>
Magnitude of Change – Construction Phase	None of the onshore elements or associated construction activities are located within the landscape designation, and construction activities will not be visible from within the

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Clogherhead and Port Oriel AONB

	<p>AONB due to screening provided by intervening vegetation and localised topographical changes and the magnitude of change is judged to be negligible.</p> <p>Sea based construction traffic and construction activities associated with the wind turbines and substation associated with the Project will have a short term, indirect effect upon coastal portions of the AONB designation. Theoretical visibility is variable across the AONB, with the most extensive area of visibility limited to northern coastal areas between Clogherhead and Dunany Point though impacts are limited by existing vegetation cover and localised changes in topography from further inland.</p> <p>The predicted magnitude of change associated with the construction phase activities associated with the offshore elements of the Project are judged to be indirect, localised and large, as the character of the AONB designation further inland and away from the coastal edges will remain unaltered.</p>
Magnitude of Change – Operational and Maintenance phase	<p>During the operational and maintenance phase associated with the Project, the predicted magnitude of change associated with the onshore cable route and landfall location will be negligible as cables will be buried, landform reinstated and localised instances of vegetation removal will be replaced with locally appropriate hedgerow and tree species.</p> <p>The predicted magnitude of change associated with the offshore elements of the Project during the operational and maintenance phase is judged to be indirect, localised, and large limited to portions of the AONB immediately adjacent to the coast.</p>
Magnitude of Change – Decommissioning phase	<p>Decommissioning activities will have a short term, indirect effect upon the AONB, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and offshore substation.</p> <p>The predicted magnitude of change associated with the decommissioning phase is judged to be large and beneficial as turbines and the OSS will ultimately be removed from the view.</p>
Significance of Effect during Construction Phase	<p>Minor significance, adverse, localised indirect, short term duration and judged to be not significant for onshore elements of the Project.</p> <p>Major to substantial significance, adverse, localised indirect long term duration and judged to be significant for offshore elements of the Project upon coastal portions of the AONB only.</p>
Significance of Effect during Operational and Maintenance phase	<p>Major to substantial significance, adverse, localised indirect long term duration and reversible. Effects are judged to be significant for offshore elements of the Project upon coastal portions of the AONB only.</p>
Significance of Effect during Decommissioning phase	<p>Major to substantial significance, adverse, localised indirect, short duration and judged to be significant as turbines are removed.</p>

Table 27-54: Mourne Mountains AONB.

Mourne Mountains AONB

Sensitivity	<p>None of the onshore elements are located within this designated landscape and effects are indirect only as the designation occurs approximately 8.4 km west of the offshore elements of the Project.</p> <p>Encompassing the Mourne Mountains, the Mourne AONB, designated in 1986, is one of the most picturesque mountain districts in Ireland. The twelve peaks include Slieve Donard, which at 850 m is Northern Ireland's highest mountain. Beneath the cluster of fine peaks, cliffs and rock pinnacles, the mountain slopes descend through moorland, woodland, field, and farm before meeting the coast. Slieve Croob lies as a northern outlier to the main massif. It is considered that the susceptibility of the AONB designation to the Project is high.</p> <p>The overall value of the AONB designation is considered to be high. Based on the susceptibility and value attached to this AONB designation, the overall sensitivity is judged to be high.</p>
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Mourne Mountains AONB

Magnitude of Change – Construction Phase	<p>None of the onshore components of the Project or associated construction activities will be visible in southern views from coastal portions of the AONB due to screening provided by intervening topography, vegetation, built form and attenuation by distance.</p> <p>Sea based construction traffic and construction activities associated with the construction phase of the OSS and turbines will have a short term, localised indirect effect upon southern facing, coastal portions of the AONB. Lands further inland, within the AONB which are predicted to experience theoretical visibility are often well vegetated, with hedgerows, scattered shelterbelt planting and mixed species woodland planting screening potential views of the Project.</p> <p>Overall, the predicted magnitude of change associated with the construction phase is judged to be localised, indirect and small.</p>
Magnitude of Change – Operational and Maintenance phase	<p>During the operational and maintenance phase, the offshore components of the Project will form a distinct feature in southern views from coastal areas, whilst visibility of the Project is restricted by intervening vegetation further inland. Whilst the Project will be visible in southern views, visible elements will be read against the background of the open sea and not set against the skyline. The location of the sun in the sky will be predominantly to the south of the WTGs resulting in the northern elevation being backlit (i.e. in shadow) which reduces the prominence of the operational Project in views.</p> <p>The predicted magnitude of change associated with the operational and maintenance phase of the Project is judged to be indirect, localised and small.</p>
Magnitude of Change – Decommissioning phase	<p>Sea based traffic and decommissioning activities will have a short term, indirect effect upon the LCA, like that predicted to occur during the construction phase though will result in the removal of the turbines and the OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase is judged to be small.</p>
Significance of Effect during Construction Phase	Minor to moderate significance , adverse, localised indirect, short duration and judged to be not significant.
Significance of Effect during Operational and Maintenance phase	Minor to moderate significance , adverse, localised indirect, long term duration, reversible and judged to be not significant.
Significance of Effect during Decommissioning phase	Minor to moderate significance , adverse, localised indirect, short duration with turbines and the OSS removed and judged to be not significant.

Table 27-55: Feede Mountains and Cooley Area AHSQ.

Feede Mountains and Cooley Areas AHSQ

Sensitivity	<p>None of the onshore or offshore elements of the Project are located within this AHSQ designation and predicted effects are judged to be indirect only as the AHSQ occurs approximately 17 km north of the onshore cable route and 8.8 km northwest of offshore elements of the Project.</p> <p>The Landscape Assessment that accompanies the Louth CDP identifies land covered by the AHSQ designation as whilst not quite possessing the exceptional natural beauty and landscape quality of the AONB, nevertheless adds significantly to the stock of natural scenic reserves within the county. The assessment also considers that these areas are protected from excessive development in order to preserve their unspoiled rural landscapes.</p> <p>It is considered that the susceptibility of the AHSQ designation to the Project is high.</p> <p>The overall value of the AHSQ designation is judged to be high as they are a locally valued landscape. In addition, the area is likely to be valued to some extent for recreation.</p> <p>Based on the susceptibility and value attached to this AHSQ Designation, the overall sensitivity is judged to be high.</p>
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Feede Mountains and Cooley Areas AHSQ

Magnitude of Change – Construction Phase	<p>The onshore components of the Project and associated construction activities will not be visible from within this AHSQ due to screening provided by intervening topographical changes and vegetation cover.</p> <p>Sea based construction traffic and construction activities associated with the construction of the OSS and turbines will have a short term, localised indirect effect upon coastal areas of the AHSQ only as views of the coast from within the AHSQ are generally well screened by intervening vegetation cover.</p> <p>Overall, the predicted magnitude of change associated with the construction phase is judged to be negligible as the character of the AHSQ will remain unaltered.</p>
Magnitude of Change – Operational and maintenance phase	<p>During the operational and maintenance phase, the offshore components of the Project will form a minor feature in eastern views from within localised coastal areas of the AHSQ where open views are available. Visibility of the Project is restricted by intervening topographical changes and screening provided by vegetation.</p> <p>The predicted magnitude of change associated with the operational and maintenance phase of the Project is judged to be negligible as the character of the AHSQ is not directly affected by the Project.</p>
Magnitude of Change – Decommissioning phase	<p>Sea based traffic and decommissioning activities will have a short term, indirect effect upon the AHSQ, similar to that predicted to occur during the construction phase though will result in the removal of the turbines and the OSS.</p> <p>The predicted magnitude of change associated with the decommissioning phase is judged to be negligible.</p>
Significance of Effect during Construction Phase	Minor significance , adverse, indirect, short duration and judged to be not significant.
Significance of Effect during Operational and Maintenance phase	Minor significance , adverse, indirect, long term duration, reversible and judged to be not significant.
Significance of Effect during Decommissioning phase	Minor significance , adverse, indirect, short duration and not judged to be not significant as turbines are removed

Table 27-56: Dunany AHSQ.

Dunany AHSQ

Sensitivity	<p>A portion of the onshore cable route, approximately 5.5 km, is located within the Dunany AHSQ which will result in direct landscape impacts upon the AHSQ designation within the site boundary associated with the onshore cable route only. Offshore elements of the Project are not located within the AHSQ and are therefore predicted to give rise to indirect effects only.</p> <p>The Dunany AHSQ is a relatively flat landscape comprised of farmland with hedgerows defining field boundaries and providing a sense of enclosure. Extensive areas of woodland are present in the vicinity of Dunany House. The extent of hedgerow and woodland cover is such that views of the coast are often screened from areas further away from the coast. The coastal part of the Dunany AHSQ is visually open and is therefore susceptible to the landfall location and onshore cable route construction works due to its intervisibility with the Irish Sea, in particular, the coast south of Dunany Point. The Dunany AHSQ has a distinctive coastline and few detracting elements.</p> <p>It is considered that the susceptibility of the AHSQ designation to the Project is high. The Dunany AHSQ is designated by Louth County Council and is thus considered to be a locally valued landscape. In addition, the area is likely to be valued to some extent for recreation.</p> <p>The overall value of the AONB designation is judged to be high.</p> <p>Based on the susceptibility and value attached to this AHSQ designation, the overall sensitivity is judged to be high.</p>
Magnitude of Change – Construction Phase	<p>Direct, localised effects associated with the construction phase of onshore cable route within the AHSQ are predicted to occur as a result of disturbance to roadside vegetation, though such disturbance is short duration as disturbed areas and vegetation removal is reinstated at the end of the construction phase. Visibility of construction activity is only</p>

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Dunany AHSQ

	<p>partially visible in the landscape to the southeast due to screening provided by intervening vegetation. Activities associated with the landfall location, including sea traffic would be apparent in the short term from a small portion of the coastline south of Dunany Point.</p> <p>Indirect effects on the character of the Dunany AHSQ would arise as a consequence of the construction activities associated with onshore cable and landfall construction activities occurring outside of the AHSQ designation. Further afield and to the southeast, the construction works will be intermittently visible in the vicinity of Roadstown, Port and Nicholastown, with partial screening afforded by existing hedgerow and woodland vegetation. The landfall and intermittent sea based traffic associated with the offshore elements will affect very small areas of this designation at the coastline south of Dunany Point.</p> <p>Sea based traffic and activities will have a short term, indirect effect upon the AHSQ designation, limited to localised coastal areas only which have a clear view towards the offshore elements of the Project.</p> <p>The predicted magnitude of change associated with the construction phase is judged to be negligible for onshore elements within the AHSQ rising to small for coastal areas of the AHSQ only as the character of the AHSQ will remain largely unaltered.</p>
Magnitude of Change – Operational and maintenance phase	<p>During the operational and maintenance phase associated with the Project, the predicted magnitude of change associated with the onshore cable route and landfall location will be negligible as cables will be buried, landform reinstated and localised instances of vegetation removal will be replaced with locally appropriate hedgerow and tree species.</p> <p>The predicted magnitude of change associated with the offshore elements of the Project during the operational and maintenance phase is judged to be indirect, localised, and small limited to portions of the AHSQ immediately adjacent to the coast.</p>
Magnitude of Change – Decommissioning phase	<p>Decommissioning activities will have a short term, indirect effect upon the AHSQ, similar to that predicted to occur during the construction phase though will result in the removal of the turbines, offshore substation, onshore substation, seabed cables and buried onshore cable.</p> <p>The predicted magnitude of change associated with the decommissioning phase is judged to be small and beneficial as turbines and OSS will ultimately be removed from the view.</p>
Significance of Effect during Construction Phase	<p>Minor significance, adverse, direct, short term duration and judged to be not significant for the landfall location and portions of the onshore cable route that fall within the AHSQ.</p> <p>Minor to moderate significance, adverse, localised indirect short term duration and judged to be not significant for offshore elements of the Project upon coastal portions of the AHSQ only.</p>
Significance of Effect during Operational and Maintenance phase	<p>Minor to moderate significance, adverse, localised indirect long term duration and reversible, limited to coastal portions of the AHSQ only.</p>
Significance of Effect during Decommissioning phase	<p>Minor to moderate significance, adverse, localised indirect, short duration and judged to be not significant as turbines are removed.</p>

27.10.4 Historic gardens and designed landscapes

As identified in section 27.7.2 previously, there are a number of Historic Gardens and Designed (HGD) Landscapes that fall within the boundary of the SLVIA study areas associated with onshore and offshore elements of the Project. Whilst the majority of these HGD's are predicted to experience localised indirect effects only, localised direct effects are predicted for the HGDs at Drumcar and Charleville where the onshore cable route passes close to the HGD boundaries. Predicted effects on Drumcar and Charleville are discussed further in the tables below.

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Table 27-57: Drumcar HGD.

Drumcar HGD	
Sensitivity	<p>The NIAH record of this site states that many of the original built features originally associated with this site have been removed and a residential development has been constructed over the core of the original landscape. Entrances and driveways have been changed over time as has the extent of the original woodland area. Despite these changes, the site retains some of its parkland character and large areas of mature woodland, single and groups of mature parkland trees and open space.</p> <p>It is considered that the susceptibility of the HGD to the Project is medium.</p> <p>The overall value of the designation is judged to be medium.</p> <p>Based on the susceptibility and value attached to this designation, the overall sensitivity is judged to be medium.</p>
Magnitude of Change – Construction Phase	<p>A short section of the onshore cable route will pass along the southern most boundary of this designed landscape at the River Dee crossing with a localised direct impact on verge side vegetation. The impacts will be associated with temporary loss of grassland and impacts on mature trees together with the presence of a site compound to facilitate the HDD crossing of the River Dee within the curtilage of the designed landscape.</p> <p>Construction plant and vehicles will be locally apparent at this location together with a site compound, drive pit and reception pit to facilitate the crossing under the River Dee.</p> <p>Localised indirect effects on this designed landscape will arise as a result of the visibility of the construction activities and localised loss of vegetation. Proposed construction activities, plant, machinery, a site compound and construction traffic would be apparent from only limited southern parts of the designed landscape, specifically small areas of farmland in the immediate vicinity of the proposed crossing at the River Dee at Drumcar Bridge, as mature woodland planting will visually screen the construction activities from the majority of this designed landscape.</p>
Magnitude of Change – Operational and maintenance phase	<p>During the operational and maintenance phase associated with the Project, the predicted magnitude of change associated with the onshore cable route will be negligible as cables will be buried, landform reinstated and localised instances of vegetation removal will be replaced with locally appropriate hedgerow and tree species.</p>
Magnitude of Change – Decommissioning phase	<p>The predicted magnitude of change associated with the decommissioning phase is judged to be no change as redundant onshore cables will be pulled through from localised locations in order to prevent damage to what will be established vegetation.</p>
Significance of Effect during Construction Phase	<p>Negligible to minor significance, adverse, direct, short term duration and judged to be not significant for the localised portion of the cable route adjacent to the southern boundary of the HGD.</p>
Significance of Effect during Operational and Maintenance phase	<p>None as onshore cables will be buried, landform repaired, and any removed vegetation reinstated following the completion of the construction phase of the Project.</p>
Significance of Effect during Decommissioning phase	<p>None as redundant elements of the onshore cable route will remain buried.</p>

Table 27-58: Charleville House HGD.

Charleville House HGD	
Sensitivity	<p>The NIAH record indicates that many of the original field boundaries have been removed and some new housing has been introduced to the western part of this site. The woodland structure however remains along with the parkland character along with original features such as entrances and driveways. The site is valued as an asset of historic importance. The site retains some of its historic parkland character and is of some considerable landscape quality. Detracting elements such as the M1 transport corridor to the immediate west with busy and frequent traffic movements and the more recent housing contribute towards a reduction in the overall landscape quality.</p> <p>It is considered that the susceptibility of the HGD to the Project is medium.</p>

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Charleville House HGD

	The overall value of the designation is judged to be high. Based on the susceptibility and value attached to this designation, the overall sensitivity is judged to be medium.
Magnitude of Change – Construction Phase	A short section of the onshore cable route construction works and joint bay 9 will pass through this designed landscape, specifically along and adjacent to the existing minor road which forms the southern boundary. Direct impacts will arise as a consequence of the construction activities which will result in a temporary loss of farmland and roadside hedgerow vegetation. Localised indirect short term effects on the character of this designed landscape will arise as a consequence of the visibility of the construction activities. These effects will be limited due to the visual screening provided by existing vegetation, including hedgerows. The construction activities including plant and machinery and working area around joint bay 10 would be apparent from only the northern part of the designed landscape and the magnitude of change is considered to be localised and small.
Magnitude of Change – Operational and Maintenance phase	During the operational and maintenance phase associated with the Project, the predicted magnitude of change associated with the onshore cable route will be negligible as cables will be buried, landform reinstated, and localised instances of vegetation removal replaced with locally appropriate hedgerow and tree species.
Magnitude of Change – Decommissioning phase	The predicted magnitude of change associated with the decommissioning phase is judged to be no change as redundant cables will be pulled through from localised locations to prevent damage to what will be established vegetation.
Significance of Effect during Construction Phase	Minor significance , adverse, direct, short term duration and judged to be not significant for a localised portion of the cable route adjacent to the southern boundary of the HGD.
Significance of Effect during Operational and Maintenance phase	Negligible to minor significance , adverse, as cables will be buried, landform repaired, and any removed vegetation reinstated following completion of the Construction Phase.
Significance of Effect during Decommissioning phase	None as redundant elements of the onshore cable route will remain buried.

27.10.5 Visual effects

A series of 22 representative viewpoints have been selected to illustrate the existing visual context of the Project and as an aid to the visual impact assessment. All of the viewpoints have been located on publicly accessible roads, footpaths, verges and walking routes (see Figure 27.9 to Figure 27.10 inclusive for viewpoint locations).

18 viewpoints have been selected to represent the visual context of the offshore elements of the Project (wind turbine array and offshore substation), whilst four viewpoints have been selected to represent the visual context of the onshore substation.

Viewpoints selected as part of the visual impact assessment were selected to meet the following criteria;

- a. A balance of viewpoints from where the main direction of view is towards the Project;
- b. A range of views towards the Project from within the SLVIA Study Area;
- c. Locations of interest (e.g. recreational areas, local roads, settlements, protected views and prospects).

An assessment of construction phase impacts, predicted operational and maintenance phase impacts and decommissioning phase impacts are included within each of the following viewpoint assessment tables.

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Table 27-59: Viewpoint 1 – Slieve Binnian Summit.

Viewpoint 1 – Slieve Binnian Summit				
Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.12a
	731966	823401		
Direction of View	191 degrees		Approx Distance to closest turbine	22.36 km
Description of Existing View and Potential Receptors	Open and expansive views are available of coastal farmland in South Down, Carlingford Lough, County Louth and the Irish Sea from this mountaintop location. View is available to recreational receptors at Slieve Binnian.			
Sensitivity	<p>Mourne Mountain AONB location; Well-known for amenity/recreational walks and admiring the coast; Open views of the sea and coastline; National value and well-known amenity location.</p> <p>Overall value of the view available is judged to be high.</p> <p>Recreational receptors at this location are judged to be of a high susceptibility to change in their views with recreational viewers on foot and pursuing outdoor recreation are enjoying the countryside and its views.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>			
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase but these will be hard to discern at distances of more than 22 km.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as medium due to the distance of views and the fact that ships are a common component of sea views due to location of Greenore and Warrenpoint ports in Carlingford Lough.</p>			
Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a relatively small proportion of the view in the context of the panoramic 360° view available.</p> <p>The WTGs will be read only against the background of the open sea and not set against the skyline. The location of the sun in the sky will be predominantly to the south of the WTGs resulting in the northern elevation of their upright form and movement being backlit (i.e. in shadow) that will blend their appearance closer to the dark appearance of the sea. This characteristic will reduce the prominence of the operational Project in views at most times of the year. The WTGs layout appears well balanced in terms of spacing. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce a number of offshore lights in the night time sea view. However due to this viewpoint location on a mountain top there will be limited viewers at night time. The OSS will be visible to the back and centre of the visible WTGs but is barely noticeable at this distance.</p> <p>The magnitude of change that occurs to the night-time baseline as a result of the Project is assessed as negligible.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be medium.</p>			
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p>			

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Viewpoint 1 – Slieve Binnian Summit

	Magnitude of change during decommissioning is assessed as medium due to the distance of the view and the fact that ships and vessels in the Irish Sea are a common feature.
Significance of Visual Effect during Construction Phase	Moderate to major significance , adverse, with the effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Moderate to major significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Moderate to major significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-60: Viewpoint 2 – Kilkeel Mourne Esplanade.

Viewpoint 2 – Kilkeel Mourne Esplanade

Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.13a
		731218		
Direction of View	195 Degrees		Approx Distance to closest turbine	12.84 km
Description of Existing View and Potential Receptors	Expansive views are available of the Irish Sea and coastline at Kilkeel with public open space in the foreground. Some dwellings are visible to the right of the viewer. View available to recreational users of public open space and adjacent residents.			
Sensitivity	<p>Mourne Mountain AONB location; Location used for local amenity/recreational walks and admiring the coast; Open views of the sea and coastline; Local value.</p> <p>Overall value of the view available is judged to be high.</p> <p>Recreational receptors at this location are judged to be of a high susceptibility to change in their views with recreational viewers on foot and pursuing outdoor recreation are enjoying the countryside and its views. Also residential receptors have a high susceptibility.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>			
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase but these will be hard to discern at distances of more than 12 km and read with other lights in the built up areas within the view and nearby.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint as they are completely screened by topography.</p> <p>Magnitude of change during construction for offshore activities is assessed as medium due to the distance of views and the fact that ships and vessels are a common component of sea views at this location.</p>			
Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a medium proportion of the panoramic view available. The Project is partly read with the County Down coastline and the built form of scattered dwellings and out buildings south of Kilkeel. The WTGs will be read on the horizon and set against the skyline, their man-made appearance, upright form and movement contrasting with the horizontal appearance of the sea but read with other man-made features in the foreground view and along the coast. With this view direction relative to the sun's position the WTG will mostly appear</p>			

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Viewpoint 2 – Kilkeel Mourne Esplanade

	<p>back lit during the day. At the shore side the view to WTGs is uninterrupted by either topography or vegetation. The WTGs overall appear well balanced in terms of spacing throughout. Looking south from this viewpoint the Project will mostly appear backlit by the sun during the day at most times of the year.</p> <p>At night time, navigation lighting is likely to be visible in reasonably clear conditions but read with other illumination sources in the foreground of the view. The Project will introduce a number of offshore lights in the night time sea view. The OSS will be visible to the centre right of the view but difficult to discern at this distance.</p> <p>The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as small.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be medium.</p>
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as medium due to the distance of the view and the fact that ships and vessels in the Irish Sea are a common feature.</p>
Significance of Visual Effect during Construction Phase	Moderate to major significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Moderate to major significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Moderate to major significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-61: Viewpoint 3 – Cranfield picnic area and caravan site.

Viewpoint 3 – Cranfield picnic area and caravan site

Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.14a
	726299	810716		
Direction of View	176 Degrees		Approx Distance to closest turbine	9.41 km
Description of Existing View and Potential Receptors	<p>Expansive views are available of the Irish Sea and Carlingford Lough with the beach at Cranfield in the foreground. The Cranfield Point Haulbowline Lighthouse is clearly visible in the foreground at sea. Part of the Carlingford Peninsula is visible to the right of the viewer where this meets the sea at Ballagan Point. The South Down coastline is visible to the left of the view along extensive caravan parks.</p> <p>View available to the coast for static caravans; recreational visitors; and road users.</p>			
Sensitivity	<p>Mourne Mountain AONB location; Location used for local amenity/recreational walks and admiring the coast; Open views of the sea and coastline; Regional value.</p> <p>Overall value of the view available is judged to be high.</p> <p>Recreational receptors at this location are judged to be of a high susceptibility to changes in their views. Recreational viewers at this location are considered to be pursuing outdoor activities and are enjoying the countryside and its views. Also caravan receptors have a high susceptibility.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>			

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Viewpoint 3 – Cranfield picnic area and caravan site

<p>Magnitude of Change – Construction Phase</p>	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase but these will be hard to discern at distances of more than 9.4 km and read with other lights in the built up areas within the view and nearby including the lighthouse.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and complete screening by topography.</p> <p>Magnitude of change during construction for offshore activities is assessed as medium due to the distance of views and the fact that ships and vessels are a common component of sea views at this location.</p>
<p>Magnitude of Change – Operational and Maintenance phase</p>	<p>The Project will be visible across the open sea view, occupying a relatively large proportion of the panoramic view available. The Project is partly read with the County Down coastline and the built form of extensive prominent static caravans to the rear and left of the view.</p> <p>The WTGs will be read on the horizon and set against the skyline, their man-made appearance, upright form and movement contrasting with the horizontal appearance of the sea but read with other man-made features along the coast at Cranfield. At the shore side the view to WTGs is uninterrupted by either topography or vegetation. The WTGs overall appear well balanced in terms of spacing throughout. As this view is looking south, the Project will mostly appear backlit by the sun during the day but will be side lit in early morning and late evening at certain time of the year only and brightening the appearance of the WTGs for a short period of the day.</p> <p>At night time, navigation lighting is likely to be visible in reasonably clear conditions but read with other illumination sources in the foreground of the view including the lighthouse. The Project will introduce a number of offshore lights in the night time sea view. The OSS will be visible to the centre right of the view but difficult to discern.</p> <p>The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as small.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be large.</p>
<p>Magnitude of Change – Decommissioning phase</p>	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as medium due to the distance of the view and the fact that ships and vessels in the Irish Sea and Carlingford Lough are a common feature.</p>
<p>Significance of Visual Effect during Construction Phase</p>	<p>Moderate to major adverse significance, , judged as not significant visual effects, predicted to occur during the construction phase of the Project.</p>
<p>Significance of Visual Effect during Operational and Maintenance Phase</p>	<p>Major to substantial significance, adverse and reversible, judged as significant visual effects, predicted to occur during the operational and maintenance phase of the Project.</p>
<p>Significance of Effect during Decommissioning Phase</p>	<p>Moderate to major significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.</p>

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Table 27-62: Viewpoint 4 – Barnavave - Carlingford Loop.

Viewpoint 4 – Barnavave - Carlingford Loop				
Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.15a
	717646	810053		
Direction of View	140 Degrees		Approx Distance to closest turbine	12.38 km
Description of Existing View and Potential Receptors	<p>Panoramic views are available from this elevated location towards Carlingford lough and the Irish Sea with the coastal farmed landscape of the Carlingford Peninsula in the foreground. The skyline of the Mourne Mountains is clearly visible in the distance to the left overlooking the farmed coastline (South Down) on the northern side of Carlingford Lough. Industrial facilities in the vicinity of Greenore are clearly visible as small elements in the panoramic view while Dundalk is also visible to the right. View available to recreational users (Hillwalkers).</p>			
Sensitivity	<p>AONB 1 Carlingford and Feede Mountains, Co. Louth location; Used for amenity/recreational walks and admiring the coast; Open views of the sea and coastline; Value recognised by designation as AONB at County level.</p> <p>Overall value of the view available is judged to be high.</p> <p>Recreational receptors at this location are judged to be of a high susceptibility to changes in their views. Recreational viewers at this location are considered to be pursuing outdoor activities and are enjoying the countryside and its views.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>			
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase but these will be hard to discern at distances of more than 12 km and read with numerous lights in the foreground view.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as medium due to the distance of views and the fact that ships are a common component of sea views.</p>			
Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a relatedly small proportion in the context of the panoramic view.</p> <p>The WTGs will be read mostly read against the background of the open sea and not set against the skyline due to the elevated viewpoint. The location of the sun in the sky will be predominantly to the south of the WTGs resulting in the northern elevation of their upright form and movement being backlit (i.e. in shadow) that will blend their appearance closer to the dark appearance of the sea. This characteristic will reduce the prominence of the operational Project in views. The WTGs layout appears well balanced in terms of spacing. At night time, navigation lighting is likely to be visible in reasonably clear conditions but read with extensive lights in the foreground. Due to this viewpoint location on a mountain top there will be no/very limited viewers at night time. The OSS will be visible to the back and right of the visible WTGs but is barely noticeable.</p> <p>The magnitude of change that occurs to the night-time baseline as a result of the Project is assessed as negligible.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be medium.</p>			
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p>			

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Viewpoint 4 – Barnavave - Carlingford Loop

	<p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as medium due to the distance of the view and the fact that ships and vessels in the Irish Sea are a common feature.</p>
Significance of Visual Effect during Construction Phase	Moderate to major significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Moderate to major significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Moderate to major significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-63: Viewpoint 5 – Cooley Point.

Viewpoint 5 – Cooley Point

Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.16a
		721558		
Direction of View	139 Degrees		Approx Distance to closest turbine	6.2 km
Description of Existing View and Potential Receptors	<p>Panoramic views are available of Dundalk Bay and the Irish Sea with the beach at Templetown in the foreground. Dunany Point and the headland of Clogherhead is visible further afield. In the far distance, the eastern coastline further south is visible only in weather conditions which afford visibility at the distances required.</p> <p>View available to recreational visitors to beach / coast amenity.</p>			
Sensitivity	<p>Well-known for amenity/recreational location and admiring the coast; Open views of the sea and coastline; Local value and well-known amenity location.</p> <p>Overall value of the view available is judged to be high.</p> <p>Amenity/recreational receptors at this location are judged to be of a high susceptibility to change in their views with viewers pursuing outdoor amenity/recreation are enjoying the outdoors and its views.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>			
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase with no other lights sources visible.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as large due to the proximity of views.</p>			
Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a large portion of the wide panoramic view available at this location.</p> <p>The WTGs will be read on the horizon and set against the skyline, their man-made appearance, upright form and movement contrasting with the horizontal appearance of the sea. The WTG layout appears well balanced in terms of spacing but appear a little</p>			

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Viewpoint 5 – Cooley Point

	<p>more concentrated at the distant right of the array. Looking southeast, the wind farm will sometimes appear backlit by the sun in for the majority of the day from this viewpoint and will only be side lit in the early morning and late evening at certain times of the year and for a short time. At night time, navigation lighting is likely to be visible conditions and noticeable with no other light sources to distract. The Project will therefore introduce a number of offshore lights in the night time sea view.</p> <p>The OSS will be noticeable but not prominent to the centre right of the view.</p> <p>The magnitude of change that occurs to the night-time baseline as a result of the Project is assessed as small.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be large due to the proximity of the view.</p>
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as large due to the proximity of the view.</p>
Significance of Visual Effect during Construction Phase	Major to substantial significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Major to substantial significance , adverse and reversible, judged as significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Major to substantial significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-64: Viewpoint 6 – Gyles Quay - car park.

Viewpoint 6 – Gyles Quay - car park				
Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.17a
		715669		
Direction of View	120 Degrees		Approx Distance to closest turbine	11.27 km
Description of Existing View and Potential Receptors	Views are available of Dundalk Bay with the beach at Gyles Quay in the foreground. Further afield views are available of the coastline further south including Dunany Point and Clogherhead. Urban development to right and rear of viewpoint. Views available to recreational visitors to the coast.			
Sensitivity	Cooley Lowlands & Coastal Area LCT; Well-known for amenity/recreational walks and admiring the coast; Open views of the sea and coastline; Local value and well-known amenity location. Overall value of the view available is judged to be high. Recreational receptors at this location are judged to be of a high susceptibility to change in their views with recreational viewers enjoying the views to the sea. Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.			
Magnitude of Change – Construction Phase	During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view			

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Viewpoint 6 – Gyles Quay - car park

	<p>during the construction phase and these will be noticeable but not prominent at distances of more than 11.2 km and read with lights in background and along the coast.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as medium due to the distance of views and the fact that ships are a common component of sea views on the horizon.</p>
Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a medium proportion of the panoramic view available from this location.</p> <p>The WTGs will be read against the skyline and partly read with the nearby coastline towards Cooley Point. The location of the sun in the sky will be predominantly to the south of the WTGs resulting in the northern elevation of their upright form and movement being backlit apart from early morning and late evening at certain times of the year and for a short time only. The WTGs layout appears well balanced in terms of spacing. At night time, navigation lighting is likely to be visible in reasonably clear conditions but read with other lights along the coast and the environs of the viewpoint. The OSS will be visible to the back and centre right of the visible WTGs but will be barely noticeable at this distance.</p> <p>The magnitude of change that occurs to the night-time baseline as a result of the Project is assessed as negligible.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be large.</p>
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as medium due to the distance of the view and the fact that ships and vessels in the Irish Sea approaching and leaving Carlingford Lough are a common feature on the horizon.</p>
Significance of Visual Effect during Construction Phase	Moderate to major significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Major to substantial significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Moderate to major significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-65: Viewpoint 7 – Soldier's Point viewpoint.

Viewpoint 7 – Soldier's Point viewpoint				
Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.18a
		708227		
Direction of View	116 Degrees		Approx Distance to closest turbine	18.99 km
Description of Existing View and Potential Receptors	Views are available of Dundalk Harbour at the mouth of the Castletown River with shoreline, dwellings and woodlands in the foreground. Further afield, the Cooley Peninsula and associated mountains and The Mourne Mountains are clearly visible. Views recreational visitors to the coast.			

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Viewpoint 7 – Soldier's Point viewpoint

Sensitivity	<p>Dundalk Bay Coast, LCT; Amenity/recreational walks and admiring the coast; Open views of the sea and coastline and Carlingford and Mourne Mountains; Local value and known amenity location.</p> <p>Overall value of the view available is judged to be high.</p> <p>Recreational receptors at this location are judged to be of a high susceptibility to change in their views with recreational viewers enjoying the views to the sea.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase and these will be noticeable but not prominent at distances of more than 18.9 km and read with lights in foreground and along the coast of Louth and Down Counties.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as small due to the distance of views and the fact that ships are a common component of sea views on the horizon.</p>
Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a small proportion of the panoramic view available from this location.</p> <p>The WTGs will be read against the skyline and partly read with the nearby coastline towards Cooley Point but will appear distant. The location of the sun in the sky will be predominantly to the south of the WTGs resulting in their upright form and movement being backlit in early morning and side and front lit in afternoon and early evening. The WTGs layout appears well balanced in terms of spacing. At night time, navigation lighting is likely to be visible in reasonably clear conditions but read with other lights along the coast towards Cooley Point and the environs of the viewpoint. The OSS will be located in the view to the back and centre right of the visible WTGs but will be barely noticeable at this distance.</p> <p>The magnitude of change that occurs to the night-time baseline as a result of the Project is assessed as negligible.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be small.</p>
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as small due to the distance of the view and the fact that ships and vessels in the Irish Sea approaching and leaving Carlingford Lough are a common feature on the horizon.</p>
Significance of Visual Effect during Construction Phase	<p>Minor to moderate significance, adverse, effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.</p>
Significance of Visual Effect during Operational and Maintenance Phase	<p>Minor to moderate significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.</p>
Significance of Effect during Decommissioning Phase	<p>Minor to moderate significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.</p>

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Table 27-66: Viewpoint 8 – Blackrock Promenade.

Viewpoint 8 – Blackrock Promenade				
Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.19a
		707211		
Direction of View	101 Degrees		Approx Distance to closest turbine	18.09 km
Description of Existing View and Potential Receptors	<p>Panoramic views of Dundalk bay and the Irish Sea are available with the beach in the foreground. The Irish Sea is framed by the headlands associated with the Cooley Peninsula (and associated mountains) to the left and headland at Dunany to the right of the view. The Mourne Mountains are visible further afield.</p> <p>Views available to recreational visitors; residents of dwellings; individuals at work (in local shops) at Blackrock.</p>			
Sensitivity	<p>Dundalk Bay LCT; Well-known for amenity/recreational area with walks and used for admiring views to the coast; Open views of the sea and coastline; Local value and well-known amenity location.</p> <p>Overall value of the view available is judged to be high.</p> <p>Recreational and residential receptors at this location are judged to be of a high susceptibility to change in their views with viewers enjoying the coastal views.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>			
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase but these will be hard to discern at distances of more than 18 km and read with other lights along the Louth coast towards Cooley Point and in the foreground at Blackrock.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as small due to the distance of views and the fact that ships are a common component of sea views and visible on the horizon.</p>			
Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a small proportion in the context of the panoramic view.</p> <p>The WTGs will be read only against the skyline. The location of the sun in the sky relative to this viewpoint means the WTGs will be predominantly side lit during the day only appearing brighter in the early to late evening at certain times of the year. The WTGs layout appears well balanced in terms of spacing. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce a number of offshore lights in the night time sea view. However due to the nature of this viewpoint location any visible lights will be read with lights in the foreground at Blackrock and lights along the Louth coast at Cooley Point. The OSS located in the view to the back and right of the visible WTGs but will be barely noticeable.</p> <p>The magnitude of change that occurs to the night-time baseline as a result of the Project is assessed as negligible.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be small.</p>			
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p>			

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Viewpoint 8 – Blackrock Promenade

	Magnitude of change during decommissioning is assessed as negligible due to the distance of the view and the fact that ships and vessels in the Irish Sea are a common feature on the horizon.
Significance of Visual Effect during Construction Phase	Minor to moderate significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Minor to moderate significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Minor significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-67: Viewpoint 9 – Sea Bank layby.

Viewpoint 9 – Sea Bank layby

Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.20a
		706983		
Direction of View	85 Degrees		Approx Distance to closest turbine	17.7 km
Description of Existing View and Potential Receptors	<p>Expansive views are available of Dundalk Bay and The Irish Sea with shoreline in the foreground. The view is framed by the headlands associated with the Cooley Peninsula to the left and headland at Dunany to the right. The Carlingford Mountains are clearly visible together with the Mourne Mountains further afield.</p> <p>Views available to transient road receptors and recreational visitors.</p>			
Sensitivity	<p>Dundalk Bay LCT; Scenic Route and View in CDP; Some limited use for amenity/recreational walks and admiring the coast at the layby; Open views of the sea and coastline; Local value.</p> <p>Overall value of the view available is judged to be high.</p> <p>Recreational receptors at this location are judged to be of a high susceptibility to change in their views with recreational viewers enjoying the coast and its views.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>			
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase and although the lights will be at distances of more than more than 17 km there are few other lights in close proximity to this location.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as small due to the distance of views and the fact that ships are a common component of sea views and visible on the horizon.</p>			
Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a medium proportion of the view in the context of the panoramic view that is available. WTG are noticeable but not prominent.</p> <p>The WTGs will be read only against the skyline. The location of the sun in the sky relative to this viewpoint means the WTGs will be predominantly side lit during the day only appearing brighter in the early to late evening at certain times of the year when</p>			

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Viewpoint 9 – Sea Bank layby

	<p>the sun is behind the viewer. The WTGs layout appears well balanced in terms of spacing. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce a number of offshore lights in the night time sea view with few light other sources visible. The OSS located in the view to the back and right of the visible WTGs but will be very difficult to discern.</p> <p>The magnitude of change that occurs to the night-time baseline as a result of the Project is assessed as small.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be medium.</p>
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as small due to the distance of the view and the fact that ships and vessels in the Irish Sea are a common feature on the horizon.</p>
Significance of Visual Effect during Construction Phase	Minor to moderate significance , adverse effects, assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Moderate to major significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Minor to moderate significance , adverse effects, assessed as short-term duration, judged as not significant visual effects during the decommissioning phase of the Project.

Table 27-68: Viewpoint 10 – Salterstown layby.

Viewpoint 10 – Salterstown layby				
Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.21a
		711491		
Direction of View	71 Degrees		Approx Distance to closest turbine	13.89 km
Description of Existing View and Potential Receptors	<p>Panoramic views are available of Dundalk Bay and The Irish Sea with beach in the foreground. Further afield, The Cooley Peninsula and associated mountains are visible to the left. The Mourne Mountains are also visible in the distance beyond.</p> <p>Views available to transient road receptors and recreational visitors.</p>			
Sensitivity	<p>Dundalk Bay LCT; AHSQ 5 in CDP; Local amenity/recreational walks and admiring the coast; Open views of the sea and coastline; Local value and amenity location.</p> <p>Overall value of the view available is judged to be high.</p> <p>Recreational receptors at this location are judged to be of a high susceptibility to change in their views with recreational users enjoying the coast and its views.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>			
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase and although the lights will be at distances of more than more than 13 km there are few other lights in close proximity to this location.</p>			

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Viewpoint 10 – Salterstown layby

	<p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as medium due to the distance of views and the fact that ships are a common component of sea views and visible on the horizon.</p>
Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a medium proportion of the view in the context of the panoramic view that is available. WTG are noticeable but not prominent.</p> <p>The WTGs will be read only against the skyline. The location of the sun in the sky relative to this viewpoint means the WTGs will be predominantly side lit during the day only appearing brighter in the early to late evening at certain times of the year when the sun is behind the viewer. The WTGs layout appears well balanced in terms of spacing. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce a number of offshore lights in the night time sea view with few light other sources visible. The OSS located in the view to the back and right of the visible WTGs but will be difficult to discern.</p> <p>The magnitude of change that occurs to the night-time baseline as a result of the Project is assessed as small.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be large.</p>
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as medium due to the distance of the view and the fact that ships and vessels in the Irish Sea are a common feature on the horizon.</p>
Significance of Visual Effect during Construction Phase	Moderate to major significance , adverse effects, assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Major to substantial significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Moderate to major significance , adverse effects, assessed as short-term duration, judged as not significant visual effects during the decommissioning phase of the Project.

Table 27-69: Viewpoint 11 – Mullacurry - R170.

Viewpoint 11 – Mullacurry - R170				
Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.22a
		700421		
Direction of View	70 Degrees		Approx Distance to closest turbine	25.74 km
Description of Existing View and Potential Receptors	<p>Views available from slightly elevated location inland. The expanse of the Irish Sea is partly visible with rolling farmland and mature hedgerow vegetation in the foreground breaking up views to the sea. The mountain skyline associated with the Cooley Peninsula and the Mourne Mountains is visible further afield to the left. Urban development is noticeable in the foreground with several dwellings visible and overhead lines.</p> <p>Views available to residential receptors and transient road users on the R170.</p>			

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Viewpoint 11 – Mullacurry - R170

Sensitivity	<p>Uplands of Collon LCT; Local access to residential properties and farmland.</p> <p>Overall value of the view available is judged to be medium.</p> <p>Panoramic view of farmland and Irish Sea will highlight focal points; residential and farm buildings in foreground as detractors; views available to transient road receptors.</p> <p>The viewer susceptibility is judged to be medium.</p> <p>Overall the sensitivity of the view is judged to be medium.</p>
Magnitude of Change – Construction Phase	<p>During the construction phase, operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and cable laying vessels. At night time, lighting associated with the Project is likely to be visible in reasonably clear conditions but will be read with scattered lights in the foreground and therefore difficult to discern.</p> <p>Magnitude of change during construction is assessed as negligible due to the distance of this view.</p>
Magnitude of Change – Operational and Maintenance phase	<p>From this slightly elevated view the Project will be visible in the open sea view for glimpse views only, occupying a small portion of the wider view.</p> <p>The WTGs will be read across the horizon and set against the skyline, their man-made appearance, upright form and movement contrasting with the horizontal appearance of the sea but read with other man-made features in the foreground view thereby reducing the prominence of WTGs from this viewpoint as they are read more with the complex farmland in the foreground and detractors in the foreground. The WTGs that are visible overall appear well balanced in terms of spacing throughout. Due to the slightly elevated viewpoint the bottom parts of the WTGs towers will be visible sitting just below the horizon. Looking east/southeast from this viewpoint the WTGs will appear backlit by the sun in the morning. In clear weather it would appear side-lit by the afternoon sun and front lit in evenings at certain times of the year, brightening the appearance of the WTGs. At night time, navigation lighting is likely to be visible in reasonably clear conditions but will be read with scattered lights in the foreground. The OSS will not be visible in the view due to the distance of the view and screening.</p> <p>The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as negligible.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be negligible.</p>
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as negligible due to the distance of the view.</p>
Significance of Visual Effect during Construction Phase	<p>Negligible to minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.</p>
Significance of Visual Effect during Operational and Maintenance Phase	<p>Negligible to minor significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.</p>
Significance of Effect during Decommissioning Phase	<p>Negligible to minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.</p>

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Table 27-70: Viewpoint 12 – Lurganboy Beach.

Viewpoint 12 – Lurganboy Beach				
Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.23a
		714402		
Direction of View	48 Degrees		Approx Distance to closest turbine	13.69 km
Description of Existing View and Potential Receptors	<p>The vast expanse of The Irish Sea is visible from the beach. Clogherhead is clearly visible to the right of the viewer. Dunany Point is clearly visible to the left of the viewer along with The Cooley Peninsula and associated mountains and the Mourne Mountains further afield in the distance. The views of the sea occupy a large proportion of the view with the coastline to the north and the south in the peripheral part of the view.</p> <p>Views available to transient road receptors (Third class road) and recreational visitors to the beach.</p>			
Sensitivity	<p>Dunany Boyne Estuary Coast LCT; AHSQ 5 Dunany; Scenic Route and View in CDP; Local amenity/recreational walks and visitors admiring the coast; Open views of the sea and coastline; Local value and amenity location.</p> <p>Overall value of the view available is judged to be high.</p> <p>Recreational receptors at this location are judged to be of a high susceptibility to change in their views enjoying the coast and its views.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>			
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase that will be visible at distances of more than 13 km.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as medium due to the distance of views and the fact that ships are a common component of sea views.</p>			
Magnitude of Change – Operational and Maintenance phase	<p>From this low lying view the Project will be visible across the open sea view, occupying a large portion of the available view.</p> <p>The WTGs will be read across the horizon and set against the skyline, their man-made appearance, upright form and movement contrasting with the horizontal appearance of the sea but read with the existing turbines that are a long established component of this view. There is no topographical features to prevent views towards the WTGs but overall they appear well balanced in terms of spacing throughout. Looking east from this viewpoint the Project will sometimes appear backlit by the sun in the morning. In clear weather it would appear side-lit by the afternoon sun and front lit in evenings, brightening the appearance of the WTGs. At night time, navigation lighting is likely to be visible in reasonably clear conditions with no other lights in the foreground. The Project will introduce a number of distant offshore lights in the night time sea view. The OSS will be visible in the centre right of the view but difficult to discern from WTGs at this distance.</p> <p>The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as small.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be large.</p>			
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p>			

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Viewpoint 12 – Lurganboy Beach

	<p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as medium due to the distance of the view and the fact that ships and vessels in the Irish Sea are a common feature.</p>
Significance of Visual Effect during Construction Phase	Moderate to major significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Major to substantial significance , adverse and reversible, judged as significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Moderate to major significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-71: Viewpoint 13 – Grangebellew tower.

Viewpoint 13 – Grangebellew tower

Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.24a
		710606		
Direction of View	55 Degrees		Approx Distance to closest turbine	17.19 km
Description of Existing View and Potential Receptors	<p>Panoramic views are available of the Irish Sea with Dunany Point in the distance. The Cooley Peninsula and associated mountains is visible together with part of the skyline of the Mourne Mountains in the distance. The rolling countryside extends out in the foreground of the view with scattered dwellings and farm buildings visible.</p> <p>Views available to transient road users.</p>			
Sensitivity	<p>Muirhevna Plain LCT; Local access to residential properties and farmland.</p> <p>Overall value of the view available is judged to be medium.</p> <p>Panoramic view of farmland and Irish Sea will hill focal points; residential and farm buildings in foreground as detractors; views available to transient road receptors.</p> <p>The viewer susceptibility is judged to be medium.</p> <p>Overall the sensitivity of the view is judged to medium.</p>			
Magnitude of Change – Construction Phase	<p>During the construction phase, operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and cable laying vessels. At night time, lighting associated with the Project is likely to be visible in reasonably clear conditions but will be read with scattered lights in the foreground and therefore difficult to discern.</p> <p>Magnitude of change during construction is assessed as small due to the distance of this view.</p>			
Magnitude of Change – Operational and Maintenance phase	<p>From this slightly elevated view the Project will be visible in the open sea view for glimpse views only, occupying a small portion of the wider view.</p> <p>The WTGs will be read across the horizon and set against the skyline, their man-made appearance, upright form and movement contrasting with the horizontal appearance of the sea but read with other man-made features in the foreground view thereby reducing the prominence of WTGs from this viewpoint as they are read more with the complex farmland in the foreground and detractors in the foreground. The WTGs that are visible overall appear well balanced in terms of spacing throughout. Looking northeast from this viewpoint the WTGs will appear backlit by the sun in the morning. In clear weather it would appear side-lit by the afternoon sun and front lit in evenings at certain times of the year, brightening the appearance of the WTGs. At night time, navigation lighting is likely to be visible in reasonably clear conditions but will be read</p>			

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Viewpoint 13 – Grangebellew tower

	<p>with scattered lights in the foreground. The OSS will be visible in the view but difficult to discern due to the distance of the view.</p> <p>The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as small.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be medium.</p>
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as small due to the distance of the view.</p>
Significance of Visual Effect during Construction Phase	Minor significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Moderate significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Minor significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-72: Viewpoint 14 - Clogherhead.**Viewpoint 14 – Clogherhead**

Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.25a
	717051	784281		
Direction of View	35 Degrees		Approx Distance to closest turbine	13.89 km
Description of Existing View and Potential Receptors	<p>Panoramic views are available of the Irish Sea with the headland of Clogherhead and Oriel Port in the foreground, Dunany Point is also visible further afield to the left. The Cooley Peninsula and associated mountains and the Mourne Mountains are also visible in the far distance to the left.</p> <p>Views available to recreational receptors / visitors to the coast.</p>			
Sensitivity	<p>AONB 2 Clogherhead and Port Oriel; Dunany Boyne Estuary Coast LCT in CDP; Well-known for amenity/recreational walks and admiring the coast; Open views of the sea and coastline; Regional value and well-known amenity location.</p> <p>Overall value of the view available is judged to be high.</p> <p>Recreational receptors at this location are judged to be of a high susceptibility to change in their views with recreational viewers on foot and pursuing outdoor recreation are enjoying the coast line and its views.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>			
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase but these will be hard to discern at distances of more than 13 km and read with lights in the foreground and at Cooley Peninsula and Mourne Mountains.</p>			

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Viewpoint 14 – Clogherhead

	<p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as medium due to the distance of views and the fact that ships on the horizon are a common component of sea views as well as vessels coming and going from Oriel Port.</p>
Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a small portion of the view in the context of a wide panoramic view.</p> <p>The WTGs will be read against the skyline and avoids being read directly against the background of the Mourne Mountains. The location of the sun in the sky will be predominantly to the south of the WTGs and behind the viewer so WTGs will during most parts of the day be front lit and more apparent than compared to early morning and late evening when WTGs will be side and back lit.</p> <p>The WTGs layout appears well balanced in terms of spacing with just a little clustering to the left side of the array. At night time, navigation lighting is likely to be visible in reasonably clear conditions. The Project will introduce a number of offshore lights in the night time sea view but these will be read with lights in the foreground at Oriel Port and at Cooley Peninsula and Mourne Mountains. The OSS will be visible to the centre right of the visible WTGs but is barely noticeable at this distance.</p> <p>The magnitude of change that occurs to the night-time baseline as a result of the Project is assessed as small.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be medium.</p>
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as medium due to the distance of the view and the fact that ships and vessels in the Irish Sea are a common feature along with vessels coming and going from Oriel Port.</p>
Significance of Visual Effect during Construction Phase	Moderate to major significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Moderate to major significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Moderate to major significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-73: Viewpoint 15 - Melifont Abbey Gardens.

Viewpoint 15 – Melifont Abbey Gardens				
Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.26a
	700375	783312		
Direction of View	60 Degrees		Approx Distance to closest turbine	28.0 km
Description of Existing View and Potential Receptors	Open views are available of the coast and The Irish Sea with rolling coastal farmland in the foreground. The view is framed by mature trees within Melifont Abbey Gardens. The Cooley Peninsula and associated mountains are visible together with part of the skyline of the Mourne Mountains in the extreme distance but only visible on clear days.			

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Viewpoint 15 – Melifont Abbey Gardens

Sensitivity	<p>AHSQ 4 – Collon Uplands; Uplands of Collon, Monasterboice LCT; in CDP; Well-known visitor location and gardens; Elevated views across countryside; Regional value.</p> <p>Overall value of the view available is judged to be high.</p> <p>Amenity receptors at this location are judged to be of a high susceptibility to change in their views enjoying the countryside and its views.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be barely visible at this distance and even then only in reasonably clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase but these will be very hard to discern at distances of more than 28 km and stronger lights in the foreground will detract.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as negligible due to the distance of views, fact that open sea forms such a small part of the view and screening effect of topography and vegetation.</p>
Magnitude of Change – Operational and Maintenance phase	<p>From this slightly elevated view the Project will be partly visible across the countryside view for glimpse views only, occupying a small portion of the wider view.</p> <p>The WTGs will be read on the distant horizon and set against the skyline but read with other man-made features in the foreground view including frequent overhead lines (OHL) and tall wooden poles thereby reducing the prominence of WTGs from this viewpoint as they are read more with the complex farmland in the foreground and detractors in the foreground. The WTGs that are visible overall appear well balanced in terms of spacing throughout.</p> <p>The location of the sun in the sky will be predominantly to the south of the WTGs and behind the viewer so WTGs will during most parts of the day be front lit and more apparent than compared to early morning and late evening when WTGs will be side and back lit.</p> <p>At night time, navigation lighting is likely to be visible in reasonably clear conditions but will be read with scattered lights in the foreground. The OSS will not be visible in the view due to the distance of the view and screening.</p> <p>The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as negligible.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be negligible.</p>
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as negligible due to the distance of the view.</p>
Significance of Visual Effect during Construction Phase	<p>Minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.</p>
Significance of Visual Effect during Operational and Maintenance Phase	<p>Minor significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.</p>
Significance of Effect during Decommissioning Phase	<p>Minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.</p>

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Table 27-74: Viewpoint 16 - Termonfeckin beach.

Viewpoint 16 – Termonfeckin beach				
Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.27a
		715540		
Direction of View	32 Degrees		Approx Distance to closest turbine	17.98 km
Description of Existing View and Potential Receptors	<p>Panoramic views are available of the Irish Sea with Termonfeckin Beach in the foreground. Clogherhead is clearly visible to the left of the viewer along with part of the skyline of The Mourne Mountains and Cooley Peninsula further afield but only visible in very clear weather. The coastline and islands further south are visible to the right of the viewer.</p> <p>Views to recreational receptors at beach/coast.</p>			
Sensitivity	<p>Dunany Boyne Estuary Coast LCT in CDP; Well-known for amenity/recreational walks and admiring the coast; Open views of the sea and coastline; Local value and well-known amenity location.</p> <p>Overall value of the view available is judged to be High.</p> <p>Recreational receptors at this location are judged to be of a high susceptibility to change in their views with recreational receptors enjoying the coastline and its views. Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>			
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible only in clear conditions. The Project will introduce new activities and a number of offshore lights in the night time sea view during the construction phase but these will be hard to discern at distances of more than 18 km and ships and vessels on the horizon are an existing component of this view.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as small due to the distance of views.</p>			
Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a medium portion of the wider panoramic view at this beach side location.</p> <p>The viewpoint is low lying and the Project is read with the coastline at Clogherhead. The WTGs will be read on the horizon and set against the skyline, their man-made appearance, upright form and movement contrasting with the horizontal appearance of the sea and coastline to the left of the view. The WTGs appear well balanced in terms of spacing with just a little clustering of WTGs in the left most side of the array. The distant WTGs will have the lower parts of their towers sitting below the horizon due to the distance of the view. The location of the sun in the sky will be predominantly to the south of the WTGs and behind the viewer so WTGs will during most parts of the day be front lit and more apparent than compared to early morning and late evening when WTGs will be side and back lit.</p> <p>At night time, navigation lighting is likely to be visible in only in clear weather conditions. The Project will introduce a number of offshore lights in the night time sea view which will be read with lights along the coastline at Clogherhead. The OSS will be located in the view but barely visible at this distance.</p> <p>The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as small.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be small.</p>			

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Viewpoint 16 – Termonfeckin beach

Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as small due to the distance of the view and the fact that ships and vessels on the horizon in the Irish Sea are a common feature along with vessels coming and going from Oriel Port.</p>
Significance of Visual Effect during Construction Phase	Minor to moderate significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Minor to moderate significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Minor to moderate significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-75: Viewpoint 17 – Bettystown Beach.

Viewpoint 17 – Bettystown Beach

Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.28a
	716043	773545		
Direction of View	24 Degrees		Approx Distance to closest turbine	23.61 km
Description of Existing View and Potential Receptors	<p>Low lying location from where expansive views are available of the Irish Sea with Bettystown Beach in the foreground. Further afield, Clogherhead is clearly visible to the left of the viewer. The skyline of the Carlingford Peninsula and associated mountains and the Mourne Mountains are visible in the very far distance but only visible on clear days.</p> <p>Views to recreational receptors at beach/coast.</p>			
Sensitivity	<p>Coastal Plains LCT in CDP; Well-known for amenity/recreational walks and admiring the coast; Open views of the sea and coastline; Local value and well-known amenity location.</p> <p>Overall value of the view available is judged to be high.</p> <p>Recreational receptors at this location are judged to be of a high susceptibility to change in their views with recreational receptors enjoying the coastline and its views.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>			
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible only in clear conditions. The Project will introduce a new activities and a number of offshore lights in the night time sea view during the construction phase but these will be hard to discern at distances of more than 23 km and ships and vessels on the horizon are an existing component of this view.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as small due to the distance of views along with vessels coming and going from Oriel Port.</p>			

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Viewpoint 17 – Bettystown Beach

Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a small portion of the wider panoramic view at this beach side location.</p> <p>The viewpoint is low lying and the Project is read with the coastline at Clogherhead. The WTGs will be read on the horizon and set against the skyline, their man-made appearance, upright form and movement contrasting with the horizontal appearance of the sea and coastline to the left of the view. The WTGs appear well balanced in terms of spacing with just a little clustering of WTGs in the left most side of the array. The distant WTGs will have the lower parts of their towers sitting below the horizon due to the distance of the view. The location of the sun in the sky will be predominantly to the south of the WTGs and behind the viewer so WTGs will during most parts of the day be front lit and more apparent than compared to early morning and late evening when WTGs will be side and back lit.</p> <p>At night time, navigation lighting is likely to be visible in only in clear weather conditions. The Project will introduce a number of offshore lights in the night time sea view which will be read with lights along the coastline at Clogherhead. The OSS will be located in the view but barely visible at this distance.</p> <p>The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as small.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be small.</p>
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as small due to the distance of the view and the fact that ships and vessels on the horizon in the Irish Sea are a common feature along with vessels coming and going from Oriel Port.</p>
Significance of Visual Effect during Construction Phase	Minor to moderate significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Minor to moderate significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Minor to moderate significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-76: Viewpoint 18 – Skerries Headland.

Viewpoint 18 – Skerries Headland				
Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.29a
	725551	761218		
Direction of View	2 Degrees		Approx Distance to closest turbine	33.79 km
Description of Existing View and Potential Receptors	<p>Low lying location from where panoramic views are available of the Irish Sea with rocky shoreline in the foreground and individual isolated buildings visible along the coastline to the left and in context of Skerries to the rear of viewer. Further afield, the coastline further north including Balbriggan and hill farmland is visible. Distant views are available of the Carlingford Peninsula and associated mountains and part of the skyline of the Mourne Mountains during weather which affords clear visibility.</p> <p>Views available to residential and recreational receptors / visitors to the coast.</p>			

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Viewpoint 18 – Skerries Headland

Sensitivity	<p>Coastal – Highly Sensitive Landscape; Highly Sensitive Landscape in CDP; Well-known for amenity/recreational walks and admiring the coast; Open views of the sea and coastline; Regional value and well-known amenity location.</p> <p>Overall value of the view available is judged to be high.</p> <p>Residential and recreational receptors at this location are judged to be of a high susceptibility to change in their views with residents and recreational receptors enjoying the coastline and its views.</p> <p>Taking into account the receptor susceptibility and the value of the view the sensitivity is judged to be high.</p>
Magnitude of Change – Construction Phase	<p>During the construction phase, construction operations and machinery movements associated with the Project will be visible with the maximum potential for impact when significant numbers of WTGs are in place in addition to concentrations of activity in the form of WTG installation vessels and seabed cable laying vessels. At night time, navigation lighting is likely to be visible only in clear conditions and even then barely perceptible at this distance and in the context of lights at Skerries. The Project will introduce a new activities and a number of offshore lights in the night time sea view during the construction phase but these will be barely perceptible at distances of more than 33 km and ships and vessels on the horizon are an existing component of this view.</p> <p>Construction phase activities associated with the onshore substation, onshore cable and landfall will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during construction for offshore activities is assessed as negligible due to the distance of views along with vessels coming and going from Skerries Harbour.</p>
Magnitude of Change – Operational and Maintenance phase	<p>The Project will be visible across the open sea view, occupying a very small portion of the wider panoramic view at this coastal location.</p> <p>The viewpoint is low lying and the Project is read with the coastline at Skerries and beyond. The WTGs will be barely perceptible on the horizon and set against the skyline and background of County Down landscape in very clear days only. The very distant WTGs will have the lower parts of their towers sitting below the horizon due to the distance of the view. The location of the sun in the sky will be predominantly to the south of the WTGs and behind the viewer so WTGs will during most parts of the day be front lit and more apparent than compared to early morning and late evening when WTGs will be side and back lit.</p> <p>At night time, navigation lighting will; be very difficult to discern and only in clear weather conditions and these will be read with lights along the coastline and at Skerries. The OSS will be located in the view but not discernible at this distance.</p> <p>The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as negligible.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be negligible.</p>
Magnitude of Change – Decommissioning phase	<p>The maximum potential for impact during the decommissioning phase will be when all WTGs are in place in addition to decommissioning activity in the form of WTG removal vessels.</p> <p>The decommissioning of onshore components will not be visible from this viewpoint due to distance and existing screening.</p> <p>Magnitude of change during decommissioning is assessed as negligible due to the distance of the view and the fact that ships and vessels on the horizon in the Irish Sea are a common feature along with vessels coming and going from Skerries harbour.</p>
Significance of Visual Effect during Construction Phase	<p>Minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.</p>
Significance of Visual Effect during Operational and Maintenance Phase	<p>Minor significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.</p>

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Viewpoint 18 – Skerries Headland

Significance of Effect during Decommissioning Phase	Minor significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
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Table 27-77: Viewpoint 19 – Minor Road to Richardstown.

Viewpoint 19 – Minor Road to Richardstown				
Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.30a
		697779		
Direction of View	20 Degrees		Approx Distance to the Project	685 m
Description of Existing View and Potential Receptors	Views are available from this roadside at a break in hedgerows across rolling countryside. Distance views to Slieve Gullion, Carlingford Mountains and Mourne Mountains are available in clear weather. The sea is not visible due to screening by topography. Tall OHLs on steel towers are visible crossing the landscape. Scattered dwellings and farm buildings blend well with the landscape. Views available to residential receptors and road users.			
Sensitivity	Muirhevna Plain LCT in Louth CDP; Local access to residential properties and farmland. Overall value of the view available is judged to be medium. Panoramic view of farmland and hill focal points beyond; OHL and steel towers in foreground as detractors; views available to transient road receptors. The viewer susceptibility is judged to be medium. Overall the sensitivity of the view is judged to medium.			
Magnitude of Change – Construction Phase	During the construction phase, operations and machinery movements associated with offshore aspects of the Project and onshore cabling will not be visible due to distance and to screening from topography and vegetation. Construction works at the onshore substation will be visible for a glimpse view. At night time, lighting associated with the Construction Phase of the Project will be visible locally, but will be read in combination with existing, scattered lighting apparent in wider views. Magnitude of change during construction is assessed as medium due to the distance of this view.			
Magnitude of Change – Operational and Maintenance phase	From this slightly elevated view the offshore aspects of the Project will not be visible due to distance and to screening from topography and vegetation. The onshore substation will be visible as a new feature in the landscape. It is read in the context of prominent steel towers for OHLs and scattered properties. The colour treatment to the elevations of the new building assists in blending the new feature into its surroundings. The height of the new building is below the tree line and reflects the topography of rolling hills. The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as small. The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be large.			
Magnitude of Change – Decommissioning phase	The decommissioning of offshore components will not be visible from this viewpoint due to distance and existing screening. The decommissioning of the onshore substation will be visible in the foreground. Magnitude of change during decommissioning is assessed as medium due to the distance of the view.			

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Viewpoint 19 – Minor Road to Richardstown

Significance of Visual Effect during Construction Phase	Moderate significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Moderate to major significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Moderate significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-78: Viewpoint 20 – St Nicholas Church ruin, Stabannan.

Viewpoint 20 – St Nicholas Church ruin, Stabannan

Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.31a
	702011	791899		
Direction of View	246 Degrees		Approx Distance to the Project	3.76 km
Description of Existing View and Potential Receptors	Views are available from this roadside where hedgerows are missing across an open and rolling countryside. The sea is not visible due to screening by topography. Distant OHLs on steel towers are visible crossing the landscape with roadside wooden poles as well. Scattered dwellings and farm buildings blend well within the landscape. Views available to residential receptors and road users.			
Sensitivity	Muirhevna Plain LCT in Louth CDP; Local access to residential properties and farmland. Overall value of the view available is judged to be medium. Panoramic view of farmland and hill focal points beyond; OHL and steel towers in foreground as detractors; views available to transient road receptors. The viewer susceptibility is judged to be medium. Overall the sensitivity of the view is judged to medium.			
Magnitude of Change – Construction Phase	During the construction phase, operations and machinery movements associated with offshore aspects of the Project and onshore cabling will not be visible due to distance and to screening from topography and vegetation. Taller construction works (e.g. cranes) at the onshore substation will be barely perceptible while ground level works will be completely screened due to the distance of the view and small component of works that would be temporarily visible. At night time, lighting associated with the Project is likely to be barely visible but will be read with scattered lights in the foreground and background. Magnitude of change during construction is assessed as negligible due to the distance of this view and screening effect of topography and vegetation.			
Magnitude of Change – Operational and Maintenance phase	From this view the offshore aspects of the Project will not be visible due to distance and to screening from topography and vegetation. The onshore substation will also not be visible as it will be screened by vegetation and topography. The colour treatment to the elevations of the new building will further assist in blending the new feature into its surroundings. The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as negligible. The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be negligible.			
Magnitude of Change – Decommissioning phase	The decommissioning of offshore components will not be visible from this viewpoint due to distance and existing screening. The decommissioning of the onshore substation will be visible only partly and then only the taller aspects (e.g. cranes).			

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Viewpoint 20 – St Nicholas Church ruin, Stabannan

	Magnitude of change during decommissioning is assessed as negligible due to the distance of the view.
Significance of Visual Effect during Construction Phase	Negligible to minor significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Negligible to minor significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Negligible to minor significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-79: Viewpoint 21 – Roodstown on L1212.

Viewpoint 21 – Roodstown on L1212

Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.32a
		698959		
Direction of View	218 Degrees		Approx Distance to the Project	1.6 km
Description of Existing View and Potential Receptors	Views are available from this slightly elevated roadside location where gaps in hedgerows permit views across an open and rolling countryside. The sea is not visible due to screening by topography. Distant OHLs on steel towers are visible crossing the landscape with roadside wooden poles as well in closer proximity. Scattered dwellings and farm buildings broadly blend well within the landscape with a few exceptions where large farm buildings are more noticeable. Views available to residential receptors and road users.			
Sensitivity	Muirhevna Plain LCT in CDP; Local access to residential properties and farmland. Overall value of the view available is judged to be medium. Panoramic view of farmland and hill focal points beyond; OHL and steel towers and some large sheds in background as detractors; views available to transient road receptors. The viewer susceptibility is judged to be medium. Overall the sensitivity of the view is judged to medium.			
Magnitude of Change – Construction Phase	During the construction phase, operations and machinery movements associated with offshore aspects of the Project and onshore cabling will not be visible due to distance and to screening from topography and vegetation. Taller construction works (e.g. cranes) at the onshore substation will be barely perceptible while ground level works will be completely screened due to the distance of the view and small component of works that would be temporarily visible. At night time, lighting associated with the Project is likely to be barely visible but will be read with scattered lights in the foreground and background. Magnitude of change during construction is assessed as negligible due to the distance of this view and screening effect of topography and vegetation.			
Magnitude of Change – Operational and Maintenance phase	From this view the offshore aspects of the Project will not be visible due to distance and to screening from topography and vegetation. The onshore substation will also not be visible as it will be screened by vegetation and topography. The colour treatment to the elevations of the new building will further assist in blending the new feature into its surroundings. The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as negligible.			

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Viewpoint 21 – Roodstown on L1212

	The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be negligible.
Magnitude of Change – Decommissioning phase	The decommissioning of offshore components will not be visible from this viewpoint due to distance and existing screening. The decommissioning of the onshore substation will be visible only partly and then only the taller aspects (e.g. cranes). Magnitude of change during decommissioning is assessed as negligible due to the distance of the view.
Significance of Visual Effect during Construction Phase	Negligible to minor significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Negligible to minor significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Negligible to minor significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-80: Viewpoint 22 – Riverstown on L1212.

Viewpoint 22 – Riverstown on L1212

Grid Ref	Northing	Easting	Existing View Figure Number	Appendix 27-1; Figure 27.33a
	697140	792113		
Direction of View	157 Degrees		Approx Distance to the Project	1.57 km
Description of Existing View and Potential Receptors	Views are available from this roadside location where gaps in hedgerows permit views across an open and rolling countryside. The sea is not visible due to screening by topography. Distant OHLs on steel towers are visible crossing the landscape and skyline with roadside wooden poles as well in closer proximity. Scattered dwellings and farm buildings broadly blend well within the landscape with a few exceptions where large farm buildings are more noticeable along with the settlement of Ardee. Distant wind turbines at Collon are visible on the skyline to the right of the view. Views available to residential receptors and road users.			
Sensitivity	Muirhevna Plain LCT in CDP; Local access to residential properties and farmland. Overall value of the view available is judged to be medium. Panoramic view of farmland and hill focal points beyond; OHL and steel towers and some large sheds and Ardee in background as detractors; views available to transient road receptors. The viewer susceptibility is judged to be medium. Overall, the sensitivity of the view is judged to medium.			
Magnitude of Change – Construction Phase	During the construction phase, operations and machinery movements associated with offshore aspects of the Project and onshore cabling will not be visible due to distance and to screening from topography and vegetation. Taller construction works (e.g. cranes) at the onshore substation will be barely perceptible while ground level works will be completely screened due to the distance of the view and small component of works that would be temporarily visible. At night time, lighting associated with the Project is likely to be barely visible but will be read with scattered lights in the foreground and background. Magnitude of change during construction is assessed as negligible due to the distance of this view and screening effect of topography and vegetation.			
Magnitude of Change – Operational and Maintenance phase	From this view the offshore aspects of the Project will not be visible due to distance and to screening from topography and vegetation.			

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Viewpoint 22 – Riverstown on L1212

	<p>The onshore substation will also not be visible as it will be screened by vegetation and topography. The colour treatment to the elevations of the new building will further assist in blending the new feature into its surroundings.</p> <p>The magnitude of change that occurs due to the night-time baseline as a result of the Project is assessed as negligible.</p> <p>The magnitude of visual impact during the operational and maintenance phase of the Project is judged to be negligible.</p>
Magnitude of Change – Decommissioning phase	<p>The decommissioning of offshore components will not be visible from this viewpoint due to distance and existing screening. The decommissioning of the onshore substation will be visible only partly and then only the taller aspects (e.g. cranes). Magnitude of change during decommissioning is assessed as negligible due to the distance of the view.</p>
Significance of Visual Effect during Construction Phase	Negligible to minor significance , adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.
Significance of Visual Effect during Operational and Maintenance Phase	Negligible to minor significance , adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.
Significance of Effect during Decommissioning Phase	Negligible to minor significance , adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

Table 27-81 below summarises the predicted significance of visual effect from each of the previously assessed viewpoints.

Table 27-81: Summary of Predicted Visual Effects for selected Viewpoints.

Viewpoint	Predicted Construction Phase Effects	Predicted Operational and Maintenance Phase Effects	Predicted Decommissioning Phase Effects
Viewpoint 1: Slieve Binnian Summit	Moderate to major significance, adverse, with the effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Moderate to major significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Moderate to major significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 2: Kilkeel Mourne Esplanade	Moderate to major significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Moderate to major significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Moderate to major significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 3: Cranfield Picnic area and Caravan site	Moderate to major adverse significance, judged as not significant visual effects, predicted to occur during the construction phase of the Project.	Major to substantial significance, adverse and reversible, judged as significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Moderate to major significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 4:	Moderate to major significance, adverse effects assessed as short-term	Moderate to major significance, adverse and reversible, judged as not	Moderate to major significance, adverse effects assessed as short-term

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Viewpoint	Predicted Construction Phase Effects	Predicted Operational and Maintenance Phase Effects	Predicted Decommissioning Phase Effects
Barnavave - Carlingford Loop	duration, judged as not significant visual effects during the construction phase of the Project.	significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 5: Cooley Point	Major to substantial significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Major to substantial significance, adverse and reversible, judged as significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Major to substantial significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 6: Gyles Quay - Car park	Moderate to major significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Major to substantial significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Moderate to major significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 7: Soldier's Point viewpoint	Minor to moderate significance, adverse, effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Minor to moderate significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Minor to moderate significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 8: Blackrock Promenade	Minor to moderate significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Minor to moderate significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 9: Sea Bank Layby	Minor to moderate significance, adverse effects, assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Moderate to major significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Minor to moderate significance, adverse effects, assessed as short-term duration, judged as not significant visual effects during the decommissioning phase of the Project.
Viewpoint 10: Salterstown Layby	Moderate to major significance, adverse effects, assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Major to substantial significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Moderate to major significance, adverse effects, assessed as short-term duration, judged as not significant visual effects during the decommissioning phase of the Project.
Viewpoint 11: Mullacurry - R170	Negligible to minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Negligible to minor significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and	Negligible to minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

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Viewpoint	Predicted Construction Phase Effects	Predicted Operational and Maintenance Phase Effects	Predicted Decommissioning Phase Effects
		maintenance phase of the Project.	
Viewpoint 12: Lurganboy Beach	Moderate to major significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Major to substantial significance, adverse and reversible, judged as significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Moderate to major significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 13: Grangebellew Tower	Minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Moderate significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 14: Clogherhead	Moderate to major significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Moderate to major significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Moderate to major significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 15: Melifont Abbey Gardens	Minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Minor significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 16: Termonfeckin Beach	Minor to moderate significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Minor to moderate significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Minor to moderate significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 17: Bettystown Beach	Minor to moderate significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Minor to moderate significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Minor to moderate significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 18: Skerries Headland	Minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Minor significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 19: Minor Road to Richardstown	Moderate significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the	Moderate to major significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the	Moderate significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the

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Viewpoint	Predicted Construction Phase Effects	Predicted Operational and Maintenance Phase Effects	Predicted Decommissioning Phase Effects
	construction phase of the Project.	operational and maintenance phase of the Project.	decommissioning phase of the Project.
Viewpoint 20: St Nicholas Church ruin, Stabannan	Negligible to minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Negligible to minor significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Negligible to minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 21 Roodstown, L1212	Negligible to minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Negligible to minor significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Negligible to minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.
Viewpoint 22: Riverstown, L1212	Negligible to minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects during the construction phase of the Project.	Negligible to minor significance, adverse and reversible, judged as not significant visual effects, predicted to occur during the operational and maintenance phase of the Project.	Negligible to minor significance, adverse effects assessed as short-term duration, judged as not significant visual effects, during the decommissioning phase of the Project.

The viewpoint assessment above has aided the assessment of visual effects for other sensitive visual receptors including settlements; long distance walkers/cyclists; travelling receptors on road, rail, and sea.

As exhibited by the ZTV for the Project (see Figure 27.4) while there are a number of settlements located inland with theoretical visibility the actual predicted visibility of the Project is very restricted by topography resulting in no view to extremely constrained views including from larger settlements like Drogheda, Ardee, Dunleer, Carrickmacross, Collon, Castlebellingham, Newry, Warrenpoint, Rostrevor, Crossmaglen, Forkhill and Carlingford.

Where limited visibility is available from inland settlements, at limited elevated locations, the Project will be read with existing urban, manmade and urban fringe features with no significant effects predicted though minor effects may occur where glimpse views are permitted. Site survey and assessment has established that it is only at coastal settlements where the Project is clearly visible that potential significant effects may occur, however such effects will also be limited to those properties with direct views such as those at the coast side/sea front locations and scattered elevated individual properties with unobstructed views to the sea. From such coastal settlement locations that are located at the coast or at closer proximity to the Project including; Clogherhead; Blackrock; Dundalk; Greencastle; and Kilkeel, the predicted effects are moderate and moderate to major and not significant as shown for Kilkeel (VP 02), Dundalk (VP 07), Blackrock (VP 08) and Clogherhead (VP 14). At night the attention of residential viewers is less likely to be focused on WTG lights due to lighting within the settlement and no significant effects are predicted at night time as a consequence of additional navigational and aviation lighting to WTGs.

The Sport Ireland web site identifies a limited number of walking trails in Louth County all focused around Carlingford Mountains. Four routes have been identified; Carlingford Greenway; Táin Trail; Grange Loops – Molly Loops; and Annaloughan Loop. Carlingford Greenway extends from Newry to Carlingford via Omeath and along the shores of Carlingford Lough. As the route follows the southern shore there will be no visibility of the Project from this route with views to the southeast broken by topography and vegetation on the Cooley Peninsula. The Táin Trail is a 40 km circular walk that is inspired by the legend of the “Cattle raid of Cooley” and extends from Carlingford towards Omeath before crossing the mountains towards Ravensdale and back

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through the southern part of Slieve Foye to Carlingford. Most of the Táin Trail route will have no direct visibility of the Project due to topography and forestry and is outside the ZTV. A short part of the southern section will have direct views (similar to VP 04) from where Moderate to Major and not significant visual effect is predicted at distances of >12.5 km. Grange Loop extends from Carlingford to Grange on the Cooley Peninsula following lanes and narrow roads. Intermittent views will be available from this loop trail when travelling southwards. The views to the Project will largely be screened by intervening vegetation such as trees and hedgerows, however the WTGs will be visible where gaps in the existing vegetation permit views to the sea. In such glimpse views Minor to Moderate and not significant effect is predicted. Annaloughan Loop is located at Rockmarshall Forest east of Jenkinstown. Again most of the trail will not have direct visibility of the Project due to topography and forestry but the southernmost section will have potential views from elevated locations from where Moderate to Major and not significant visual effect is predicted at distances of >12 km. There are further shorter loop trails located around Carlingford village but due to their location on the lower parts of north-eastern facing slopes of the mountains there will be no potential for significant visual effect.

In Northern Ireland a review of long distance walking routes has identified that the Ulster Way is located at its nearest to the Project for a section between Newcastle and Rostrevor that passes Spelga Dam on the northern and western side of the Mourne Mountains. This 26 km section is also known as the Mourne Way. Due to the location of the route on the northern and western side of the mountains there is no potential visibility of the Project as shown on the ZTV mapping (see Figure 27.2). Other sections of the Ulster Way located at much longer distances from the Project (e.g. Ring of Gullion) may have potential for views towards the Project but at such long distances the proposed WTGs will be barely perceptible with negligible impacts. Overall no significant visual effects are predicted for the Ulster Way and Mourne Way.

Walk NI web site lists a large number of walking routes, in addition to the Mourne Way, at various locations within the Mourne environs from the coast at Annalong to mountain summits at Slieve Binnian. As shown by the ZTV (see Figure 27.2) the extent of visibility of the Project across the Mourne Mountains is limited to the south eastern most areas and the coastline between Killowen and Annalong. There are very few of the listed walking routes within the ZTV. Direct views will be available towards the Project from Slieve Binnian summit and Annalong coastal path at distances of >22 km from the WTGs and due to the high sensitivity of viewers on these walking routes, Moderate to Major adverse and not significant effects have been predicted.

None of the walking routes identified are likely to see substantial use during the hours of darkness and no significant night-time visual effects as a consequence of navigational and aviation lighting are therefore predicted for this receptor group.

With respect to rail travellers the Dundalk to Dublin Iarnród Éireann services are located well in land between Dundalk to south of Drogheda from where there is localised limited, potential visibility of the Project and no significant visual effects are predicted as a result. South of Drogheda from Laytown to Skerries the railway line follows the coast closely with distant views to the Project possible at distances between 24 and 33 km from where the proposed WTGs will be very difficult to discern and no significant effects are predicted as a result. By night the attention of rail users is less likely to be focused on WTGs navigational and aviation lights due to internal lights on the trains and no significant effects are predicted at night time.

The key roads in the SLVIA Study Area with potential visibility for road users are the M1, R132, R173 and R172. The route of the M1 is primarily low lying, located on land with very limited visibility to the sea. Localised elevated sections, of the M1 corridor within the northern portion of the Study Area will experience glimpsed views of the Project in eastern views afforded to north bound traffic, though such views are only available for a short duration. For this reason, it is predicted that no significant visual effects will occur for views from the M1. Similarly, the R132 (old N1) is also low lying and not on the coast but does have some sections closer to the coast from where glimpse views through gaps in roadside vegetation will permit partial views to the Project. The viewer sensitivity is low. The magnitude of impact will be medium. The predicted effect will be Minor and not significant. The R172 follows the coastline at Blackrock and will offer direct views of the Project as shown by VP 08 at distances of approximately 18 km. The viewer sensitivity is low. The magnitude of impact will be small. The predicted effect will be Negligible to Minor and not significant. The R173 extends from the M1 to the Cooley Peninsula and is again a low lying road that largely has no view towards the Project due to intervening vegetation and topography. Glimpse views to the sea are available however at some locations where gaps permit and these views will be more open in winter months. The viewer sensitivity is low. The magnitude of impact will be small. The predicted effect will be Negligible to Minor and not significant. By night the attention of road users is not likely to be focused on WTGs

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navigational and aviation lights as features of passing interest due to frequent distractions by other vehicles and roadside lights and no significant effects are predicted at night time for road users.

The A2 road is promoted as a driving route for tourists known as the Mourne Coastal Route that extends along the east coast from Belfast to Newry. The ZTV indicates that between Annalong and Killowen the A2 road will have potential visibility of the Project. Such views will be intermittent and at distances of >13 km from the WTGs will be noticeable but not prominent in available views as they will be read in the context of the roadside/countryside view and not the primary focus of the view. The viewer sensitivity is medium. The magnitude of impact will be medium. The predicted effect will be Moderate and not significant.

In relation to promoted routes, Scenic Route 18, in Louth County, is designated for the quality of the views afforded from it and is therefore considered to be of local value. Views from this route are primarily of the surrounding farmed landscape including that associated with the Dunany AHSQ. Scenic Route 18 affords views of the farmland and coastline which are distinctive in character and feature few if any landscape detractors and is therefore of high susceptibility to change. Based on judgements concerning value and sensitivity, an overall high sensitivity to the proposed change is considered to arise. Direct construction impacts will arise to Scenic Route 18 as a result of the onshore cable route construction works. Small areas of grass verge along the roadside together with limited amounts of hedgerow vegetation, will be lost though replaced at the end of the construction phase. These direct impacts will arise in a very small proportion of the Scenic Route overall which extends from Castlebellingham southwards along the coast to Termonfeckin. On this basis, a negligible magnitude of impact is considered to arise resulting in a minor adverse and not significant effect on Scenic Route 18.

By night the attention of road users is not likely to be focused on the WTGs navigational and aviation lights due to frequent distractions by other vehicles and roadside lights and no significant effects are predicted at night time for road users.

Ships coming and going from Warrenpoint and Greenore will have direct southern views to the Project. The nearest views will be at distances of approximately 6 km. These ships are working vessels and the viewer sensitivity will be low. The magnitude of impact will be large. The predicted effect will be Minor to Moderate and not significant. The Carlingford Ferry operates between Greenore and Greencastle and part of the route will afford views to the southeast towards the Project, similar to that represented in VP 03. The viewer sensitivity will be medium. The magnitude of impact will be large. The predicted effect will be Moderate to Major and not significant due to the transitory nature of the views.

27.10.6 Mitigation and residual effects

Significant effects are predicted to occur as a result of the Project on seascapes, landscape and viewpoints used as part of the visual assessment. However, no measures over those outlined in Table 27-29 are proposed.

Residual effects

The residual effects are as outlined in the assessment provided in section 27.10. The assessment was undertaken based on the consideration that the measures included in the Project (Table 27-29), will be implemented.

27.10.7 Future monitoring

No Seascape, Landscape and Visual Amenity monitoring to test the predictions made within the impact assessment is considered necessary.

27.11 Cumulative Impact Assessment (CIA)

27.11.1 Methodology

The Cumulative Impact Assessment (CIA) takes into account the impact associated with the Project together with other projects within the 60 km Study Area (see Figure 27-11, Figure 27-11a and Figure 27-11b) for the offshore wind farm area and the study areas for the onshore substation (see section 27.3).

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The projects selected and considered to be of relevance to this CIA presented within this chapter are based upon the results of a screening exercise (see volume 2A, appendix 3-1: CIA Screening Annex). Each project has been considered on a case-by-case basis for screening in or out of this chapter's assessment based upon data confidence, effect-receptor pathways and the spatial/temporal scales involved.

The approach to assessment examines the cumulative effects of the Project alongside the following projects where they fall within the ZTV associated with the onshore and offshore elements of the Project:

- Other projects with consent but not yet constructed/construction not completed;
- Other projects in a consent application process but not yet determined (including planning applications, foreshore lease/licence applications, Dumping at Sea Permit applications, etc.);
- Other projects currently operational that were not operational when baseline data were collected, and/or those that are operational but have an ongoing impact; and
- Projects, which satisfy the definition of 'relevant maritime usage' under the Maritime Area Planning Act (2021) (i.e. wind farm projects designated as 'Relevant Projects' or 'Phase 1 Projects') including Arklow Bank II, Bray Bank and Kish Bank; North Irish Sea Array, Codling Wind Park (I and II).

The specific projects screened into this CIA are outlined in Table 27-82 below.

It is noted that there are a number of additional offshore site investigation projects listed (see volume 2A, appendix 3-1: CIA Screening Annex) however as many of these projects only involve increased shipping movements within the assessment area, only those that are within 25 km of the Project have been included within the CIA assessment.

Collaboration with the other Phase 1 projects has informed the CIA. This included discussions amongst the project teams on the approach and methodologies regarding the assessment of cumulative impacts and the sharing of project design parameters (including turbine tip height, hub height, rotor diameter, layout) to allow preparation of cumulative wirelines and photomontages for projects that exist within the Project's ZTV (see Figure 27-2).

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Table 27-82: List of other projects considered within the CIA for the onshore infrastructure.

Project	Status	Approximate distance to onshore substation (km)	Description of Project	Dates of construction (if applicable)	Dates of operation (if applicable)	Overlap with Project
Residential / Commercial /Utilities Development						
Residential / commercial	Planning	1.3	Large-scale Residential Development (LRD) Application. Permission for development to consist of the provision of a total of 122 residential units along with provision of a crèche.	Unknown	Unknown	Screened into cumulative assessment as project has potential for visual interaction with onshore substation during operational and maintenance phase.
Louth to Woodland 220kv line Uprate Project	Consented	0.0	Permission for works associated with the proposed uprate of the existing Louth – Woodland 220 kV overhead powerline (OHL) between the existing Louth 220 kV substation in the townland of Monavallet, County Louth and the existing Woodland 220 kV substation in the townland of Woodland, County Meath. The Louth – Woodland 220 kV OHL is approximately 61.5 km long and comprises 207 no. steel lattice tower structures.	Unknown	Unknown	Screened into cumulative assessment as project has potential for visual interaction with onshore substation during construction and operational and maintenance phases.

Table 27-83: List of other projects considered within the CIA for the offshore infrastructure.

Project	Status	Distance from offshore wind farm area (km)	Distance from offshore cable corridor (km)	Description of Project	Dates of construction (if applicable)	Dates of operation (if applicable)	Overlap with Project
Offshore Wind Farms							
North Irish Sea Array (NISA)	Maritime Area Consent	16.2	18.1	EIA Scoping Report (2021) refers to the construction of an offshore wind farm of up to 500 MW, consisting of 36 turbines with a maximum height of 320 m and rotor diameter of up to 290 m. Offshore substation platforms may be required. ³	Unknown	Unknown (Design life minimum 35 years)	Screened into cumulative assessment as project falls within SLVIA Study Area
Site investigations							
Mainstream Renewable Power Ltd (Ref No. FS007373)	Planning	4.2	0.7	Foreshore Licence application for site investigation works off County Dublin. Surveys include Geophysical, Geotechnical, Metocean and Ecological site investigations.	N/A	Unknown (subject to award of licence).	Screened into cumulative assessment as project falls within SLVIA Study Area
Lir Offshore Array (Ref No. FS007392)	Planning	15.60	7.70	Site Investigation surveys for the proposed Lir Offshore Array, off Counties Louth, Meath and Dublin	N/A	Unknown (subject to award of licence).	Screened into cumulative assessment as project falls within SLVIA Study Area
MaresConnect Electrical Interconnector (Ref No. FS007635)	Planning	24.62	23.27	Site investigation surveys for the proposed MaresConnect electrical interconnector between Rol and Wales.	N/A	Unknown (subject to award of licence)	Screened into cumulative assessment as project falls within SLVIA Study Area
Dredging / Dumping at Sea							
Drogheda Port Company Reference Number: FS007028	Consented	25.27	16.06	Drogheda Port Company Dredging of River Boyne	2021	2029	Screened into cumulative assessment as project falls within SLVIA Study Area
Onshore Wind Turbines							
Colon	Operational	32.7	21.3	Operational onshore turbine comprised 1 turbine to 126m tip height	Unknown	Unknown	Screened into cumulative assessment as project has potential for visual interaction during operational and maintenance phase of the Project.
Dunmore	Operational	30.8	19.5	Operational onshore windfarm comprised 4 turbines to 78m tip height	Unknown	Unknown	Screened into cumulative assessment as project has potential for visual interaction during operational and maintenance phase of the Project.
Dundalk IT	Operational	20.5	17.0	Operational onshore turbine comprised 1 turbine to 86m tip height	Unknown	Unknown	Screened into cumulative assessment as project has potential for visual interaction during operational and maintenance phase of the Project.

³ Project design details were provided by the developer to inform the cumulative assessment with this project.

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Table 27-84 presents the relevant project design parameters derived from Table 27 26 - Table 27 28, which have been used to assess the potential cumulative impact of the Project with the other projects identified in Table 27-86 and Table 27-87.

Table 27-84: Project design parameters considered for the assessment of potential impacts on seascape, landscape and visual resources.

Potential impact	Phase			Project design parameters	Justification
	C	O	D		
Seascape Impacts	✓	✓	✓	Project design parameters (Table 27-26 - Table 27-28) assessed cumulatively with the following other projects: Construction; Operational and maintenance phase <ul style="list-style-type: none"> Offshore dredging; Offshore site investigations; All phases <ul style="list-style-type: none"> Offshore wind farm; Onshore wind farms; and Residential / Commercial / Utility Developments. 	Greatest number of structures / vessels resulting in greatest visual impact when the greatest number of other schemes are considered.
Landscape Character Impacts					
Landscape Designations					
Visual Impacts	✓	✓	✓	Project design parameters (Table 27 26 - Table 27 28) assessed cumulatively with the following other projects: Construction; Operational and maintenance phase <ul style="list-style-type: none"> Offshore dredging; Offshore site investigations; All phases <ul style="list-style-type: none"> Offshore wind farm; Onshore wind farms; and Residential / Commercial / Utility Developments. 	Greatest number of structures / vessels resulting in greatest visual impact when the greatest number of other schemes are considered.

A description of the significance of cumulative effects upon seascape, landscape character, landscape designations and visual receptors arising from each of the previously identified projects is given below.

For the purpose of the cumulative impact assessment, the potential to result in the greatest effect on an identified receptor at the construction, operational and maintenance and decommissioning phases is broadly the same for the three phases and the three phases are therefore considered together below with the difference being that any predicted construction and decommissioning effects will be of a shorter duration, while any operational and maintenance effects are considered to be of a long term duration.

27.11.2 Cumulative seascape impacts

Dredging

With regards to the identified consented project, the dredging of the River Boyne by the Drogheda Port Company, it is considered that this consented project will have a localised indirect effect on portions of the Low lying Coastal Plains and Estuarine Landscape, Low Lying Islands and Peninsulas Seascape at the estuarine mouth of the River Boyne. Additional shipping movements associated with the dredging operations, and which are visible from within this high sensitivity seascape character area will be viewed as a minor addition to the existing shipping movements accessing the River Boyne and will not generally be discernible in combination with the Project. The Project would be visible, sequentially, as a minor element within northeastern portions of the view (see Figure 27.18d) whilst proposed shipping movements associated with the dredging operations would be perceived in southeastern portions of the view only.

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It is predicted that the magnitude of cumulative impact associated with the consented project and the Project would be equivalent to a no change scenario, as additional shipping movements will be read as part of the existing seascape character, giving rise to no significant cumulative seascape impact.

Residential / commercial development

With regards to the identified planning project, it is considered that this project located on the eastern edge of Ardee, will not impact directly on the seascape character areas identified and as such no significant cumulative effects are predicted.

Utility development

With regards to the identified consented project, it is considered that this project will not impact directly on the seascape character areas identified and as such no significant cumulative effects are predicted.

Offshore site investigations

With regards to the identified consented and in planning projects, it is considered that those projects, which lie in close proximity to or within the Large Bay Seascape Character Area, will have a localised indirect effect upon the seascape and will have a simultaneous and combined cumulative effect in combination with the Project during the construction / operational maintenance phases of the Project, attributable to the additional shipping movements perceived within the Large Bay Seascape.

It is predicted that the magnitude of cumulative impact associated with these consented and in planning projects on the high sensitivity Large Bay Seascape, would be localised and negligible, giving rise to a minor indirect and not significant cumulative effect as additional shipping movements will be difficult to discern from existing shipping movements crossing through within the Seascape Character Area.

With regards to the identified consented and in planning projects, it is considered that those projects, which lie in close proximity to or within the will have a localised indirect effect on northern portions of the Low Lying Coastal Plain & Estuarine landscape, Low Lying Island and Peninsulas Seascape and localised southern portions of the Large Open or Partially Open Sea Lough with Raised Hinterland Seascape, where the Project is seen in combination with the identified consented and in planning projects, with cumulative effects attributable to the additional shipping movements perceived within the identified seascape areas.

It is predicted that the magnitude of cumulative impact associated with these consented and in planning projects on the high sensitivity Low Lying Coastal Plain & Estuarine landscape, Low Lying Island and Peninsulas Seascape and the Large Open or Partially Open Sea Lough with Raised Hinterland Seascape would be localised, indirect and negligible, giving rise to a minor, indirect and not significant cumulative effect as additional shipping movements associated with the identified projects will be difficult to discern from existing shipping movements present within these seascapes.

Onshore wind turbines

With regards to the identified onshore wind turbines, it is considered that the identified onshore turbines, which are all operational and form part of the baseline conditions assessed previously are generally difficult to read from within the seascape character areas in combination with the Project due to the separation distances and screening provided by topographical changes, vegetation and built form. None of the identified operational onshore wind turbines are located within a seascape character area and it is considered that there are no significant seascape cumulative effects predicted as a result.

Offshore wind turbines

With regards to the identified project, NISA, it is considered that northern turbines associated with NISA array which lie in proximity to the Large Bay seascape character area, will have a localised indirect effect upon the seascape character area, attributable to additional turbines being perceived from within the Large Bay Seascape. It is considered that northern portions of the NISA array will have a simultaneous, sequential, and combined cumulative effect when read in combination with the Project during all three phases of the Project.

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The Large Bay Seascape character area has been assessed as having a high sensitivity, and it is predicted that the magnitude of cumulative impact associated with the project on the Large Bay Seascape, during all three phases of the Project would be localised and negligible, giving rise to a minor, indirect, and not significant cumulative effect.

Direct seascape effects, arising as a consequence of the NISA array turbines, are predicted to occur across the Low Lying Coastal Plain & Estuarine Landscape, Low Lying Island and Peninsulas Seascape between Dunany Point and Balbriggan and across the Low Lying Plateau Landscape Seascape between Balbriggan and Rush as a consequence of the identified project. Where the Project is visible in combination with NISA array (see Figure 27.28d and Figure 27.29d) from within these seascape character areas, it is considered that this will give rise of a localised and negligible cumulative impact, giving rise to a not significant cumulative effect as visible portions of the NISA array will be seen at closer distance and form a larger element within the seascape.

It is considered that localised portions of the Large Open or Partially Open Sea Lough with Raised Hinterland Seascape will experience indirect cumulative effects attributable to additional turbines being perceived from within this northern seascape character area.

It is predicted that the magnitude of cumulative impact associated with the project on the high sensitivity Large Open or Partially Open Sea Lough with Raised Hinterland Seascape during all three phases of the Project would be localised and negligible, giving rise to a minor, indirect, and not significant cumulative effect.

27.11.3 Cumulative landscape impacts

Dredging

With regards to the identified consented project, the dredging of the River Boyne by the Drogheda Port Company, it is considered that portions of this project, which lie in close proximity the Dunany, Boyne Estuary Coast and Coastal Plains Landscape Character Areas will have a localised indirect effect upon coastal areas only and will have a sequential and combined cumulative effect in combination with the Project, attributable to the additional shipping movements being perceived from coastal areas adjacent to the Irish Sea.

It is predicted that the magnitude of cumulative impact associated with the consented project and the Project during the construction and operational and maintenance phases of the Project would be equivalent to a no change scenario, giving rise to no significant cumulative landscape impacts as additional shipping movements associated with the consented dredging works will be difficult to discern from existing shipping movements.

Residential / commercial development

With regards to the identified planning project, located on the eastern edge of Ardee, it is considered that this planned project, which lies within the Muirhevna Plain Landscape Character Area will have a localised direct effect only and will have a simultaneous and combined cumulative effect in combination with the Project during the construction and operational and maintenance phase of the Project, attributable to works associated with the construction of the substation and temporary construction works associated with the onshore cable route.

It is predicted that the magnitude of cumulative landscape impact associated with this project during the construction phase of the onshore elements of the Project would be localised and negligible, giving rise to a minor, direct and not significant cumulative effect as the proposed residential scheme would be read primarily as an extension to the existing built form of Ardee. Construction phase effects will be of a short duration while the operational and maintenance effects associated with the onshore substation will be of a long term duration and reversible. Inland area of the Muirhevna Plain Landscape Character Area are predicted to experience no significant cumulative effects when the identified planning project is assessed in combination with the offshore elements of the Project due to screening effects of intervening topographical changes and intervening vegetation and built form.

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Utility development

With regards to the identified consented project, it is considered that this consented overhead line and pylon upgrade project, which lies within the Muirhevna Plain Landscape Character Area will have a localised direct effect only and will have a simultaneous and combined cumulative effect in combination with the Project during the construction and operational and maintenance phase of the Project, attributable to works associated with the construction of the onshore sub-station.

It is predicted that the magnitude of cumulative landscape impact associated with this consented project during the construction phase of the onshore elements of the Project would be localised and negligible, giving rise to a minor, direct and not significant cumulative effect as the consented scheme would be read as a minor alteration to the existing overhead line which currently forms part of the existing landscape baseline. Construction phase effects will be of a short duration while the operational and maintenance effects associated with the onshore substation will be of a long term duration and reversible. Inland area of the Muirhevna Plain Landscape Character Area are predicted to experience no significant cumulative effects when the identified planning project is assessed in combination with the offshore elements of the Project due to screening effects of intervening topographical changes and intervening vegetation and built form.

Offshore site investigations

With regards to the identified operational and planning projects, it is considered that portions of these projects, which lie in close proximity coastal areas only of the Cooley Lowlands and Coastal Area, Dundalk Bay Coast and Dunany, Boyne Estuary Coast Landscape Character Areas will have a localised indirect effect and will have a simultaneous and combined cumulative effect in combination with the Project during the construction or operational and maintenance phases of the Project, attributable to additional shipping movements perceived within the adjacent Irish Sea.

It is predicted that the magnitude of cumulative impact associated with these projects on landscapes at the coast only, during all the construction or operational and maintenance phases of the Project would be localised and negligible, giving rise to a minor, indirect and not significant cumulative effect. Effects will be short duration and reversible. At landscapes further inland no significant cumulative effects are predicted.

Onshore wind turbines

With regards to the identified onshore wind turbines, it is considered that these turbines are difficult to read from within the landscape character areas in combination with the Project due to the separation distances and screening provided by intervening topographical changes, vegetation and built form. None of the identified operational turbines are located within coastal areas of the identified landscape character areas, with identified turbines located further inland and it is considered that there are no significant cumulative effects predicted as a result.

Offshore wind turbines

With regards to the identified project, NISA, it is considered that portions of this project, which lie in close proximity to the Dundalk Bay Coast, Dunany, Boyne Estuary Coast, Coastal Plains and Coastal Landscape Character Areas will have a localised indirect effect upon coastal areas only and will have a sequential and combined cumulative effect in combination with the Project during all three phases.

Where the Project is visible in combination with the identified project, NISA, it is considered that this will give rise to a localised and negligible cumulative impact, giving rise to a minor and not significant cumulative effect as visible portions of the identified project will be seen at closer distance and form a larger element within available views from coastal areas, with the Project forming a minor element in northern views, where elements are often difficult to discern. Construction and decommissioning effects will be of a short duration while operational and maintenance effects will be long term duration and reversible.

At landscapes further inland no significant cumulative effects are predicted when the identified project is assessed in combination with the Project due to screening effects of intervening topography, vegetation and built form.

27.11.4 Cumulative visual impacts

Dredging

With regards to the identified consented project, the dredging of the River Boyne by the Drogheda Port Company, it is considered that additional shipping movements moving through views available from coastal areas will be difficult to discern from existing shipping movement in the area. Additional shipping movements will be perceived as a minor additional, though not uncommon element of the view. Additional visibility and movement of shipping within coastal views is judged not to give rise to a significant visual impact when considered in combination with the construction or operational and maintenance phases of the Project.

Offshore site investigation

With regards to the identified operational and planning projects, only those projects that are located within or on close proximity to Dundalk Bay will be perceived from coastal viewpoints. Additional shipping movements will be perceived as a minor localised addition, though not uncommon element of the view. Additional visibility and movement of shipping within coastal views is judged not to give rise to a significant visual impact when considered in combination with the three phases of the Project.

Onshore wind turbines

With regards to the identified onshore wind turbines, it is considered that all these projects are currently operational and form part of the existing visual baseline, which has been assessed previously. Operational turbines identified previously lie further inland either to the west of the Project or, in the case of the operational turbine at Dundalk IT, north of the onshore infrastructure works. Where visible within views available to receptors, such as residential receptors, recreational receptors or transient receptors they often form a minor element of the view and become readily absorbed within the view by existing vegetation, topographical changes or built form meaning that these projects are not often visible within the existing visual baseline. Localised sequential cumulative visual effects are predicted to occur, however these are considered to be negligible, giving rise to minor and not significant cumulative visual effects on high sensitivity receptors. It is therefore, considered that there are no significant visual cumulative effects arising from the Project in combination with the identified operational onshore turbines during all three phases of the Project.

Residential / commercial development

With regards to the identified planning project, located on the eastern edge of Ardee, it is considered that this planned project, will when constructed be viewed as an extension to the existing built form of Ardee. Intervening vegetation, lying between the proposed onshore substation and the planned project limits predicted cumulative visual impacts, with localised sequential cumulative visual effects predicted to occur, however these are considered to be negligible, giving rise to minor and not significant cumulative visual effects on high sensitivity receptors. It is therefore, considered that there are no significant visual cumulative effects arising from the Project in combination with the identified planned residential project during all three phases of the Project.

Utility development

With regards to the identified consented project, located immediately west of the proposed onshore substation, it is considered that this consented project will be visible in combination with the onshore Project substation. However, it is considered that this consented project, which is an upgrade to the existing overhead line and pylons which form part of the visual baseline, will not impact or alter existing visual baseline. However these are considered to be negligible, cumulative visual impacts giving rise to minor and not significant cumulative visual effects on high sensitivity receptors. It is therefore, considered that there are no significant visual cumulative effects arising from the Project in combination with the identified consented utility works during all three phases of the Project.

Offshore wind turbines

The following table provides an assessment of the cumulative visual impact from viewpoints assessed previously.

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Table 27-85: Cumulative visual impact assessment.

Viewpoint	Theoretical Visibility of the Project and identified project (NISA)	Magnitude of Cumulative Effect (Construction / Operation and Decommissioning)	Cumulative Effect (Construction / Operation and Decommissioning)
Vp 01 Slieve Binnian Summit Sensitivity – High	<p>NISA turbines visible in combination with the Project in southern portion of the view only. Proposed turbines associated with NISA increases the horizontal field of view containing turbines, though turbines viewed as a minor addition.</p> <p>NISA turbines discernible as a separate, feature on distant horizon with turbines breaking the horizon, increasing the perception of such features within views from this elevated location (refer appendix 27; Figure 27.12d).</p> <p>NISA turbines considered to be a distinguishable, additional feature within the view and additional shipping movements associated with construction phase would be visible in combination with Project shipping movements.</p> <p>Aviation lighting, visible at night, associated with NISA array would be visible as a separate cluster of offshore lights, distinct from the Project.</p>	Negligible	Minor and not significant
Vp 02 Kilkeel Mourne Esplanade Sensitivity – High	<p>NISA turbines visible in combination with the Project in southern portion of the view only. Additional turbines associated with NISA increases the horizontal field of view containing turbines.</p> <p>Proposed NISA turbines are perceived as a separate, feature on distant horizon, increasing the perception of such features within views from this location (see Figure 27.13d).</p> <p>NISA array considered to be a minor, additional feature within the view and additional shipping movements associated with construction phase would be visible in combination with Project shipping movements.</p> <p>Aviation lighting, visible at night, associated with NISA array would be visible as a separate cluster of offshore lights, distinct from the Project.</p>	Negligible	Minor and not significant
Vp 03 Cranfield picnic area and caravan site. Sensitivity – High	<p>Turbines associated with proposed NISA array visible in combination with the Project within southern portion of the view only.</p> <p>Proposed NISA turbines slightly increases the horizontal field of view containing turbines, though</p>	Negligible	Minor and not significant

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Viewpoint	Theoretical Visibility of the Project and identified project (NISA)	Magnitude of Cumulative Effect (Construction / Operation and Decommissioning)	Cumulative Effect (Construction / Operation and Decommissioning)
	<p>is perceived beyond the Project (see Figure 27.14d).</p> <p>Additional shipping movements associated with construction phase of NISA would be visible in combination with Project shipping movements.</p> <p>Aviation lighting, visible at night, associated with the NISA would be visible in combination with, and increase the horizontal field of view containing such lighting.</p>		
Vp 04 Barnavave - Carlingford Loop Sensitivity - High	<p>NISA turbines visible in combination with the Project within southeastern portion of the view. Proposed NISA turbines slightly increases the horizontal field of view containing turbines, though is perceived beyond the Project (see Figure 27.15d and Figure 27.15e).</p> <p>Turbines associated with NISA array are perceived as a separate, additional feature within the view with turbines visible above the horizon and separation to the Project. Additional shipping movements associated with the construction phase of the NISA array are considered to be visible in combination with Project shipping movements.</p> <p>Aviation lighting, visible at night, associated with the NISA array would be visible as a separate cluster of offshore lights, distinct from the Project.</p>	Negligible	Minor and not significant
Vp 05 Cooley Point Sensitivity - High	<p>NISA array visible in combination with the Project within southeastern portion of the view, beyond and below the Project.</p> <p>Proposed NISA array does not increase the horizontal field of view, though is perceived beyond the Project (see Figure 27.16d) with additional turbines perceived as infill.</p> <p>Additional shipping movements associated with construction phase of the NISA array would be visible in combination with Project shipping movements.</p> <p>Aviation lighting, visible at night, associated with the NISA array would be visible in combination with, and below and beyond Project lighting, increasing the perception of lighting in the view.</p>	Negligible	Minor and not significant
Vp 06 Gyles Quay – car park	<p>Proposed turbines associated with NISA array are perceived in combination with the Project in southeastern portion of the view. The proposed</p>	Negligible	Minor and not significant

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Viewpoint	Theoretical Visibility of the Project and identified project (NISA)	Magnitude of Cumulative Effect (Construction / Operation and Decommissioning)	Cumulative Effect (Construction / Operation and Decommissioning)
Sensitivity - High	<p>NISA array would increase the horizontal field of view containing turbines.</p> <p>Proposed NISA array is perceived as a separate, feature on distant horizon with turbines perceived above the horizon (see 27.17d).</p> <p>NISA array considered to be a minor, additional feature within the view and additional shipping movements associated with construction phase would be visible in combination with Project shipping movements, though visible further east.</p> <p>Aviation lighting, visible at night, associated with the NISA array would be visible as a separate cluster of offshore lights, distinct from the Project.</p>		
Vp 07 Soldier's Point viewpoint Sensitivity – High	<p>Proposed NISA array theoretically visible in combination with the Project in southeastern portion of the view.</p> <p>Proposed NISA array theoretically increases the horizontal field of view containing turbines, which are perceived as a separate feature on distant horizon (see Figure 27.18d).</p> <p>Proposed NISA array considered to be a minor addition to the view and additional shipping movements associated with construction phase would be visible in combination with Project shipping movements.</p> <p>Aviation lighting, visible at night, associated with the Proposed NISA array would be visible as a separate cluster of offshore lights, distinct from the Project.</p>	Negligible	Minor assessed as not significant
Vp 08 Blackrock Promenade Sensitivity – High	<p>Proposed NISA array visible in combination with the Project in southeastern portion of the view. Proposed NISA array would increase the horizontal field of view containing turbines with increased separation between projects when compared with previous viewpoint (Vp 07 – Soldiers Point viewpoint)</p> <p>Proposed NISA array perceived as a separate, feature on distant horizon with turbines perceived above the horizon (see Figure 27.19d and 27.19e).</p> <p>Proposed NISA array considered to be an additional feature within the view and additional shipping movements would be perceived</p>	Negligible	Minor and not significant

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Viewpoint	Theoretical Visibility of the Project and identified project (NISA)	Magnitude of Cumulative Effect (Construction / Operation and Decommissioning)	Cumulative Effect (Construction / Operation and Decommissioning)
	<p>sequentially in combination with Project shipping movements.</p> <p>Aviation lighting, visible at night, associated with the Proposed NISA array would be visible as a separate cluster of offshore lights, distinct from the Project.</p>		
Vp 09 Sea Bank layby Sensitivity – High	<p>Proposed NISA array visible in combination with the Project in eastern portion of the view, forming a minor element of the view. Proposed NISA array does increase the horizontal field of view containing turbines though there is increased separation between the projects.</p> <p>Proposed NISA array perceived as a separate, feature on distant horizon with turbines perceived above the horizon (see Figure 27.20d).</p> <p>Proposed NISA array perceived on horizons as a minor additional feature. Additional shipping movements associated with construction phase would be visible in combination and sequentially with Project shipping movements.</p> <p>Aviation lighting, visible at night, associated with the Proposed NISA array would be perceived as a separate cluster of offshore lights, distinct from the Project, increasing visibility of such lighting in the view.</p>	Negligible	Minor and not significant
Vp 10 Salterstown layby Sensitivity – High	<p>Proposed NISA array not visible in combination, or sequentially with the Project due to intervening landform changes within the southern portion of the view at this location. The Project is perceived as a feature within northern views from this location only (see Figure 27.21d).</p>	No Change scenario as Proposed NISA array not visible	No Change

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Viewpoint	Theoretical Visibility of the Project and identified project (NISA)	Magnitude of Cumulative Effect (Construction / Operation and Decommissioning)	Cumulative Effect (Construction / Operation and Decommissioning)
Vp 11 Mullacurry - R170	Proposed NISA array visible in eastern portion of the view only, though would be primarily viewed in succession and sequentially to the Project as the viewer turns to the south.	Negligible	Negligible to minor assessed as not significant.
Sensitivity – Medium	Where visible in the same eastern portion of the view the Proposed NISA array increases the horizontal field of view containing turbines though there is increased separation between projects.		
	Proposed NISA array visible as a separate, feature on distant horizon with turbines perceived above the horizon (see Figure 27.22d).		
	Proposed NISA array considered to be perceived on horizons as a minor additional feature. Additional shipping movements associated with construction phase of the Proposed NISA array would be visible sequentially with Project shipping movements.		
	Aviation lighting, visible at night, associated with the Proposed NISA array would be visible as a separate cluster of offshore lights, distinct from the Project, increasing visibility of such lighting in the view.		
Vp 12 Lurganboy Beach	Proposed NISA array not visible in combination with the Project, and would be visible as a separate prominent feature in southern views only.	Negligible	Minor and not significant
Sensitivity – High	The Proposed NISA array would be viewed in succession, sequentially with the Project as the viewer turns to the south.		
	Proposed NISA array visible as a separate feature on southern horizon with turbines viewed above the horizon (see Figure 27.23d), perceived offshore from visible landform.		
	Additional shipping movements associated with construction phase of the Proposed NISA array would be visible sequentially with Project shipping movements.		
	Aviation lighting, visible at night, associated with the proposed NISA array would be visible as a separate cluster of offshore lights, distinct from the Project, and visible in southern views sequentially, increasing visibility of such lighting in the view.		

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Viewpoint	Theoretical Visibility of the Project and identified project (NISA)	Magnitude of Cumulative Effect (Construction / Operation and Decommissioning)	Cumulative Effect (Construction / Operation and Decommissioning)
Vp 13 Grangebellew tower Sensitivity – Medium	<p>Proposed NISA array not visible in combination with the Project, and visible, sequentially, as a separate prominent feature in southern views only.</p> <p>The Proposed NISA array would be viewed sequentially with the Project as the viewer turns to the south.</p> <p>Proposed NISA array visible as a separate feature on horizon with turbines viewed above the horizon (see Figure 27.24d) and offshore from the landform visible in the southern portion of the view.</p> <p>Additional shipping movements associated with construction phase of the Proposed NISA array would be visible sequentially with the shipping movements associated the Project.</p> <p>Aviation lighting, visible at night, associated with the Proposed NISA array would be visible as a separate cluster of offshore lights, within southern portions of the view, sequentially and distinct from the Project, increasing visibility of such lighting in the southern portion of the available view.</p>	Negligible	Negligible to Minor and not significant
Vp 14 Clogherhead Sensitivity – High	<p>Proposed NISA array not visible in combination with the Project, and visible, sequentially as a separate feature in southern views only.</p> <p>Proposed NISA array would be viewed sequentially with the Project as the viewer turns to the south.</p> <p>Proposed NISA array visible as a separate feature on southern horizons with turbines viewed above the horizon (see Figure 27.25d).</p> <p>Additional shipping movements associated with the construction phase of the Proposed NISA array would be visible sequentially with Project shipping movements.</p> <p>Aviation lighting, visible at night, associated with the Proposed NISA array would be visible as a separate cluster of offshore lights within southern portion of the available view, distinct from the Project, increasing visibility of such lighting in the view.</p>	Negligible	Minor and not significant
Vp 15 Melifont Abbey Gardens	<p>Proposed NISA array not visible in combination with the Project in northern portions of the available view. Proposed NISA array is partially visible as a separate minor feature in eastern view</p>	Negligible	Minor and not significant

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Viewpoint	Theoretical Visibility of the Project and identified project (NISA)	Magnitude of Cumulative Effect (Construction / Operation and Decommissioning)	Cumulative Effect (Construction / Operation and Decommissioning)
Sensitivity - High	<p>due to screening provided by intervening topography.</p> <p>Proposed NISA array would be viewed in succession with the Project as the viewer turns to the south (refer Figure 27.26d).</p> <p>Additional shipping movements associated with construction phase of the Proposed NISA array would be difficult to perceive due to intervening landform, though were visible would be viewed sequentially to the shipping movements associated with the Project.</p> <p>Aviation lighting, visible at night, associated with the Proposed NISA array would be partially visible as a separate cluster of offshore lights, distinct from the Project, increasing visibility of such lighting in the view.</p>		
Vp 16 Termonfeckin beach Sensitivity – High	<p>Proposed NISA array not visible in combination with the Project in northeastern portion of the view and is visible as a separate distinct feature in southern views only, with associated elements becoming more prominent in views.</p> <p>The Proposed NISA array would be viewed in succession with the Project as the viewer turns to the south.</p> <p>Proposed NISA array is visible as a separate feature on horizon with turbines viewed above the horizon (see Figure 27.27d), with associated features becoming more prominent.</p> <p>Additional shipping movements associated with construction phase of the Proposed NISA array would be visible sequentially with Project shipping movements though shipping movements associated with the Project would be difficult to perceived in northern portions of the view due to distance.</p> <p>Aviation lighting, visible at night, associated with the Proposed NISA array would be visible sequentially as a separate cluster of offshore lights, distinct from the Project, increasing visibility of such lighting in the view.</p>	<p>Small - NISA turbines become more prominent in southern portions of the view</p>	<p>Minor to moderate assessed as not significant</p>
Vp 17 Bettystown Beach Sensitivity – High	<p>Proposed NISA array partially visible in combination with the Project within the northern portion of the view. Proposed NISA array significantly increases the horizontal field of view containing turbines, because of separation distances between the projects and the elongated</p>	<p>Small - NISA turbines become more prominent in southern portions of the view</p>	<p>Minor to moderate assessed as not significant</p>

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Viewpoint	Theoretical Visibility of the Project and identified project (NISA)	Magnitude of Cumulative Effect (Construction / Operation and Decommissioning)	Cumulative Effect (Construction / Operation and Decommissioning)
	<p>array formation associated with the Proposed NISA array</p> <p>The Proposed NISA array forms a more prominent feature in eastern views and extends visibility of turbines across eastern portion of the view from this location (see Figure 27.28d and 27.28e).</p> <p>Additional shipping movements associated with the construction phase of the Proposed NISA array would be theoretically visible sequentially and in combination with Project shipping movements, with combined construction phase operations visible in northern views only. Proposed shipping movements associated with the construction phase of the Project considered to be difficult to discern in northern views due to distance.</p> <p>Aviation lighting, visible at night, associated with the identified project would be visible as a separate cluster of offshore lights, distinct from the Project, increasing visibility of such lighting in the view.</p>		
Vp 18 Skerries Headland	Proposed NISA array visible in combination with the Project in northeastern portion of the view and Proposed NISA array visible as a separate, prominent feature in northern views.	Negligible	Minor assessed as not significant
Sensitivity – High	<p>The Project is perceived on the distant horizon, though not easily discernible in the view due to attenuation by distance, with Proposed NISA array forming the main feature in the view. The Proposed NISA array increases the horizontal field of view containing such features.</p> <p>Proposed NISA array visible as a separate feature on horizon with turbines viewed above the horizon (see Figure 27.29d and 27.29e).</p> <p>Additional shipping movements associated with construction phase of the Proposed NISA array would be theoretically visible in combination with Project shipping movements, with combined construction phase operations visible in northern views only. It is considered that shipping movements associated with the Proposed NISA array will be more apparent in northern views than shipping movements associated with the Project, which will be difficult to discern due to attenuation by distance.</p> <p>Aviation lighting, visible at night, associated with the proposed NISA array would be visually more prominent, as a separate cluster of offshore lights,</p>		

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Viewpoint	Theoretical Visibility of the Project and identified project (NISA)	Magnitude of Cumulative Effect (Construction / Operation and Decommissioning)	Cumulative Effect (Construction / Operation and Decommissioning)
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distinct from the Project, increasing visibility of such lighting in the view.

27.12 Transboundary effects

Although there is the potential for transboundary effects to arise as a result of theoretical visibility of the Project, at distances over 8 km, from southern coastal and mountainous regions within Northern Ireland, no significant effects are predicted for such areas due to limited frequency of excellent visibility conditions and negligible magnitude of change predicted on seascape, landscape and visual receptors from elevated mountain tops or from lower elevation coastal areas.

Similarly, there is also the potential for transboundary effects to arise as a result of theoretical visibility of the Project, at distances over 90 km, from southwestern coastlines of the Isle of Man and western coastal portions of Anglesey. However, no significant effects are predicted due to the long distances involved, limited frequency of excellent visibility conditions and negligible magnitude of change predicted on seascape, landscape and visual receptors from coastal areas associated with the Isle of Man and Anglesey.

27.13 Interactions

A description of the likely inter-related effects arising from the Project on seascape, landscape and visual resources is provided in chapter 17: Inter-related Effects (Offshore) or chapter 31: Inter-related Effects (Onshore).

27.14 Summary of impacts, mitigation measures and residual effects

Table 27-86 presents a summary of the potential impacts, measures and residual effects in respect to seascape, landscape and visual amenity.

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Table 27-86: Summary of potential environment effects, mitigation and monitoring.

Description of impact	Measures included in the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Seascape							
Large Bay	Measures include layout and location of offshore and onshore infrastructure; turbine towers and blades will be to a uniform colouration; Turbines will be of identical tower heights and rotor diameter.	C: Large – Negligible O: Large D: Large – Negligible	C: High O: High D: High	C: Major to substantial (offshore) – Minor (onshore) O: Major to substantial (offshore) D: Major to substantial (offshore) – Minor (onshore)	None	C: Major to substantial (offshore) – Minor (onshore) O: Major to substantial (offshore) D: Major to substantial (offshore) – Minor (onshore)	None
Large open or partially open sea lough with raised hinterland		C: Large – Negligible O: Large D: Large	C: High O: High D: High	C: Major to substantial (offshore) – Minor (onshore) O: Major to substantial (offshore) D: Major to substantial (offshore)	None	C: Major to substantial (offshore) – Minor (onshore) O: Major to substantial (offshore) D: Major to substantial (offshore)	None
Low Lying Coastal plain & estuarine landscape, low lying islands and peninsulas		C: Large – Negligible O: Large – Small D: Large – Negligible	C: High O: High D: High	C: Major to substantial (offshore) – Minor (onshore) O: Major to substantial (offshore) – Minor to moderate (onshore) D: Major to substantial (offshore, northern portion) – Minor to moderate (offshore, southern portion) – Minor (onshore)	None	C: Major to substantial (offshore) – Minor (onshore) O: Major to substantial (offshore) – Minor to moderate (onshore) D: Major to substantial (offshore, northern portion) – Minor to moderate (offshore, southern portion) – Minor (onshore)	None
Low Lying plateau landscape		C: Negligible O: Negligible D: Negligible	C: Medium O: Medium D: Medium	C: Minor (offshore) O: Minor (offshore) D: Minor (offshore)	None	C: Minor (offshore) O: Minor (offshore) D: Minor (offshore)	None
Landscape							

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Description of impact	Measures included in the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Dunany, Boyne Estuary Coast	Measures include layout and location of offshore and onshore infrastructure; turbine towers and blades will be to a uniform colouration; Turbines will be of identical tower heights and rotor diameter.	C: Large – Small O: Large – Negligible D: Large – Small	C: High O: High D: High	C: Major to substantial (offshore) – Minor to moderate (onshore) O: Major to substantial (offshore) D: Major to substantial (offshore) – Minor to moderate (onshore)	None	C: Major to substantial (offshore) – Minor to moderate (onshore) O: Major to substantial (offshore) D: Major to substantial (offshore) – Minor to moderate (onshore)	None
Muirhevna Plain		C: Small – Small O: Negligible – Small D: Small – Small	C: Medium O: Medium D: Medium	C: Minor (offshore) – Minor (onshore) O: Negligible to minor (offshore) – Negligible to minor (onshore, cable route portion) – Minor (onshore, substation site portion) D: Minor (offshore) – Minor (onshore)	None	C: Minor (offshore) – Minor (onshore) O: Negligible to minor (offshore) – Negligible to minor (onshore, cable route portion) – Minor (onshore, substation site portion) D: Minor (offshore) – Minor (onshore)	None
Dundalk Bay Coast		C: Large – Negligible O: Large – Negligible D: Large – Negligible	C: High O: High D: High	C: Major to substantial (offshore) – Minor (onshore) O: Major to substantial (offshore) – Minor (onshore) D: Major to substantial (offshore) – Minor (onshore)	None	C: Major to substantial (offshore) – Minor (onshore) O: Major to substantial (offshore) – Minor (onshore) D: Major to substantial (offshore) – Minor (onshore)	None
Uplands of Collon, Monasterboice		C: Negligible O: Negligible D: Negligible	C: Medium O: Medium D: Medium	C: Negligible to minor O: Negligible to minor D: Negligible to minor	None	C: Negligible to minor O: Negligible to minor D: Negligible to minor	None
Lough Drumlin and Lake Areas		C: Negligible O: Negligible D: Negligible	C: Low O: Low D: Low	C: Negligible to minor O: Negligible to minor D: Negligible to minor	None	C: Negligible to minor O: Negligible to minor D: Negligible to minor	None
Lower Faughart, Castletown & Flurry River Basins		C: Negligible O: Negligible D: Negligible	C: Medium O: Medium D: Medium	C: Negligible to minor O: Negligible to minor D: Negligible to minor	None	C: Negligible to minor O: Negligible to minor D: Negligible to minor	None

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Description of impact	Measures included in the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Cooley Lowlands and Coastal Areas		C: Large O: Large D: Large	C: High O: High D: High	C: Major to substantial O: Major to substantial D: Major to substantial	None	C: Major to substantial O: Major to substantial D: Major to substantial	None
Carlingford Lough, Mountains including West Feede Uplands		C: Medium O: Medium D: Medium	C: High O: High D: High	C: Moderate to major O: Moderate to major D: Moderate to major	None	C: Moderate to major O: Moderate to major D: Moderate to major	None
Coastal Plain (Meath)		C: Medium O: Medium D: Medium	C: Small O: Small D: Small	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
Coastal (Fingal)		C: Negligible O: Negligible D: Negligible	C: High O: High D: High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
Mourne and Slieve Croob (Northern Ireland RLCA)		C: Small O: Small D: Small	C: High O: High D: High	C: Minor to moderate O: Minor to moderate D: Minor to moderate	None	C: Minor to moderate O: Minor to moderate D: Minor to moderate	None
Carlingford and Feede Mountains AONB		C: Negligible O: Negligible D: Negligible	C: High O: High D: High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
Clogherhead and Port Oriel AONB		C: Large – Negligible O: Large – Negligible D: Large	C: High O: High D: High	C: Major to substantial (offshore) – Minor (onshore) O: Major to substantial D: Major to substantial	None	C: Major to substantial (offshore) – Minor (onshore) O: Major to substantial D: Major to substantial	None
Mourne Mountains AONB		C: Small O: Small D: Small	C: High O: High D: High	C: Minor to moderate O: Minor to moderate D: Minor to moderate	None	C: Minor to moderate O: Minor to moderate D: Minor to moderate	None
Feede Mountains and Cooley Area AHSQ		C: Negligible O: Negligible D: Negligible	C: High O: High D: High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
Dunany AHSQ		C: Small – Negligible O: Small – Negligible D: Small	C: High O: High D: High	C: Minor to moderate (offshore) – Minor (onshore) O: Minor to moderate D: Minor to moderate	None	C: Minor to moderate (offshore) – Minor (onshore) O: Minor to moderate	None

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Description of impact	Measures included in the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
						D: Minor to moderate	
Drumcar HGD		C: Negligible O: Negligible D: No change	C: Medium O: Medium D: Medium	C: Negligible to minor O: None D: None	None	C: Negligible to minor O: None D: None	None
Charleville House HGD		C: Small O: Negligible D: No change	C: Medium O: Medium D: Medium	C: Minor O: Negligible to minor D: None	None	C: Minor O: Negligible to minor D: None	None
Visual							
Viewpoint 1 – Slieve Binnian Summit	Measures include layout and location of offshore and onshore infrastructure; turbine towers and blades	C: Medium O: Medium D: Medium	C: High O: High D: High	C: Moderate to major O: Moderate to major D: Moderate to major	None	C: Moderate to major O: Moderate to major D: Moderate to major	None
Viewpoint 2 – Kilkeel Mourne Esplanade	will be to a uniform colouration; Turbines will be of identical tower heights and rotor diameter.	C: Medium O: Medium D: Medium	C: High O: High D: High	C: Moderate to major O: Moderate to major D: Moderate to major	None	C: Moderate to major O: Moderate to major D: Moderate to major	None
Viewpoint 3 – Cranfield picnic area and caravan site		C: Medium O: Large D: Medium	C: High O: High D: High	C: Moderate to major O: Major to substantial D: Moderate to major	None	C: Moderate to major O: Major to substantial D: Moderate to major	None
Viewpoint 4 – Barnavave – Carlingford loop		C: Medium O: Medium D: Medium	C: High O: High D: High	C: Moderate to major O: Moderate to major D: Moderate to major	None	C: Moderate to major O: Moderate to major D: Moderate to major	None
Viewpoint 5 – Cooley Point		C: Large O: Large D: Large	C: High O: High D: High	C: Major to substantial O: Major to substantial D: Major to substantial	None	C: Major to substantial O: Major to substantial D: Major to substantial	None
Viewpoint 6 – Gyles Quay – car park		C: Medium O: Large D: Medium	C: High O: High D: High	C: Moderate to major O: Major to substantial D: Moderate to major	None	C: Moderate to major O: Major to substantial D: Moderate to major	None
Viewpoint 7 – Soldier's Point viewpoint		C: Small O: Small D: Small	C: High O: High D: High	C: Minor to moderate O: Minor to moderate D: Minor to moderate	None	C: Minor to moderate O: Minor to moderate D: Minor to moderate	None
Viewpoint 8 – Blackrock Promenade		C: Small O: Small D: Negligible	C: High O: High D: High	C: Minor to moderate O: Minor to moderate D: Minor	None	C: Minor to moderate O: Minor to moderate D: Minor	None

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Description of impact	Measures included in the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Viewpoint 9 – Sea Bank layby		C: Small O: Medium D: Small	C: High O: High D: High	C: Minor to moderate O: Moderate to major D: Minor to moderate	None	C: Minor to moderate O: Moderate to major D: Minor to moderate	None
Viewpoint 10 – Salterstown layby		C: Medium O: Large D: Medium	C: High O: High D: High	C: Moderate to major O: Major to substantial D: Moderate to major	None	C: Moderate to major O: Major to substantial D: Moderate to major	None
Viewpoint 11 – Mullacurry – R170		C: Negligible O: Negligible D: Negligible	C: Medium O: Medium D: Medium	C: Negligible to minor O: Negligible to minor D: Negligible to minor	None	C: Negligible to minor O: Negligible to minor D: negligible to minor	None
Viewpoint 12 – Lurganboy Beach		C: Medium O: Large D: Medium	C: High O: High D: High	C: Moderate to major O: Major to substantial D: Moderate to major	None	C: Moderate to major O: Major to substantial D: Moderate to major	None
Viewpoint 13 – Grangebellew Tower		C: Small O: Medium D: Small	C: Medium O: Medium D: Medium	C: Minor O: Moderate D: Minor	None	C: Minor O: Moderate D: Minor	None
Viewpoint 14 – Clogherhead		C: Medium O: Medium D: Medium	C: High O: High D: High	C: Moderate to major O: Moderate to major D: Moderate to major	None	C: Moderate to major O: Moderate to major D: Moderate to major	None
Viewpoint 15 – Melifont Abbey Gardens		C: Negligible O: Negligible D: Negligible	C: High O: High D: High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
Viewpoint 16 – Termonfeckin Beach		C: Small O: Small D: Small	C: High O: High D: High	C: Minor to moderate O: Minor to moderate D: Minor to moderate	None	C: Minor to moderate O: Minor to moderate D: Minor to moderate	None
Viewpoint 17 – Bettystown Beach		C: Small O: Small D: Small	C: High O: High D: High	C: Minor to moderate O: Minor to moderate D: Minor to moderate	None	C: Minor to moderate O: Minor to moderate D: Minor to moderate	None
Viewpoint 18 – Skerries headland		C: Negligible O: Negligible D: Negligible	C: High O: High D: High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
Viewpoint 19 – Minor road to Richardstown		C: Medium O: Large D: Medium	C: Medium O: Medium D: Medium	C: Moderate O: Moderate to major D: Moderate	None	C: Moderate O: Moderate to major D: Moderate	None

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Description of impact	Measures included in the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Viewpoint 20 – St Nicholas Church ruin, Stabannan		C: Negligible	C: Medium	C: Negligible to minor	None	C: Negligible to minor	None
		O: Negligible	O: Medium	D: Negligible to minor		D: Negligible to minor	
		D: Negligible	D: Medium	O: Negligible to minor		O: Negligible to minor	
Viewpoint 21 – Roodstown on L1212		C: Negligible	C: Medium	C: Negligible to minor	None	C: Negligible to minor	None
		O: Negligible	O: Medium	D: Negligible to minor		D: Negligible to minor	
		D: Negligible	D: Medium	O: Negligible to minor		O: Negligible to minor	
Viewpoint 22 – Riverstown on L1212		C: Negligible	C: Medium	C: Negligible to minor	None	C: Negligible to minor	None
		O: Negligible	O: Medium	D: Negligible to minor		D: Negligible to minor	
		D: Negligible	D: Medium	O: Negligible to minor		O: Negligible to minor	

C: construction phase O: operational and maintenance phase D: decommissioning phase.

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Table 27-87: Summary of potential cumulative environment effects, mitigation and monitoring (where cumulative effects predicted).

Potential impact	Phase			Measures included in the Project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
	C	O	D							
Seascape Impacts - offshore site investigation works	✓	✓	✓	Measures include layout and location of offshore and onshore infrastructure; turbine towers and blades will be to a uniform colouration; Turbines will be of identical tower heights and rotor diameter.	Negligible	High	Minor	None	Minor	None
Seascape Impacts - offshore wind turbines	✓	✓	✓		Small	High	Minor	None	Minor	None
Landscape Impacts – residential/commercial/utilities development	✓	✓	✓		Negligible	High	Minor	None	Minor	None
Landscape Impacts – offshore site investigation works	✓	✓	✓		Negligible	High	Minor	None	Minor	None
Landscape Impacts - offshore wind turbines	✓	✓	✓		Negligible	High	Minor	None	Minor	None
Visual Impacts – offshore wind turbines	✓	✓	✓		No change & negligible – small	High	Negligible to Major (not significant in EIA terms)	None	Negligible to Major (not significant in EIA terms)	None

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