



ElAR Volume 3: Offshore Infrastructure Assessment Chapters Chapter 15: Seascape, Landscape and Visual Impact Assessment

Kish Offshore Wind Ltd.

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APEM Group

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Dublin Array Offshore Wind Farm

Environmental Impact Assessment Report

Volume 3, Chapter 15: Seascape, Landscape and Visual Impact
Assessment

Contents

15	SLVIA	8
15.1	Introduction	8
15.2	Regulatory background	9
15.3	Consultation	10
15.4	Methodology.....	13
	Study area	13
	Baseline data	15
	Data sources.....	15
	Assessment methodology	17
	Categories of effects	18
15.5	Assessment criteria	19
	Sensitivity of receptor criteria	19
	Magnitude of change criteria.....	20
	Defining the significance of effect	21
15.6	Receiving environment	24
	Array area.....	24
	The Offshore Export Cable Corridor.....	26
	Temporary Occupation Area	26
15.7	Defining the sensitivity of the baseline.....	26
	Seascape Character	27
	Baseline and sensitivity of seascape coastal character	28
	Landscape Character	31
	Baseline and sensitivity of landscape character	32
	Landscape Designations.....	38
	Baseline and sensitivity of landscape designations	40
	Visual receptors and views	42
	Principal Visual Receptors.....	62
	Future baseline	77
15.8	Uncertainties and technical difficulties encountered.....	78
	Zone of Theoretical Visibility.....	78
	Visualisations	79
15.9	Scope of the assessment.....	81

Scoped in	81
Scoped out from further evaluation in this EIAR	82
15.10 Key parameters for assessment	82
Maximum Design Option	82
15.11 Project Design Features and Avoidance and Preventative Measures	90
15.12 Environmental Assessment: Construction phase	91
Potential impacts during construction	91
Potential construction impacts on seascape / landscape character	93
Potential construction impacts on views and principal visual receptors	108
15.13 Environmental assessment: operational phase	148
Potential impacts during operation and maintenance	148
Potential impacts on seascape and landscape receptors	150
Potential impacts on views and visual receptors	164
15.14 Environmental assessment: decommissioning phase	202
15.15 Environmental assessment: cumulative effects	205
SLVIA cumulative assessment	205
Projects for cumulative assessment	209
Cumulative impacts on seascape / landscape character	211
Cumulative impacts on views and visual receptors	233
15.16 Interaction of environmental factors	297
Project lifetime effects	298
Receptor led effects	300
15.17 Whole-project assessment	300
Assessment of landfall whole project effects	301
Assessment of Onshore Substation whole project effects	303
15.18 Transboundary statement	306
15.19 Summary of effects	307
15.20 References	318

Appendices

Volume 4, Appendix 15.3.1 SLVIA Methodology

Volume 4, Appendix 15.3.2 Visual Assessment of Turbine Lighting

Annexes

Annex A: EPA definitions

Annex B: Seascape, Landscape and Visual Impact Assessment Policy

Figures

Volume 4, Appendix 15.3.3 SLVIA GIS Figures

Volume 4, Appendix 15.3.4 SLVIA Visualisations

Tables

Table 1 Summary of consultation relevant to SLVIA	11
Table 2 Data sources for SLVIA	15
Table 3 Illustrative impact significance matrix	22
Table 4 Design Options Assessed	88
Table 5 Cumulative Developments relevant to the SLVIA	207
Table 6 Projects for cumulative assessment.....	209
Table 7 Project lifetime effects assessment for potential inter-related effects on seascape, landscape and visual receptors.....	298
Table 8 Summary of Effects	312

Glossary

Term	Definition
Array area	The area within which the WTGs and OSP will be located.
Landfall	The location where the Offshore Export Cable Corridor comes ashore adjacent to the Shanganagh Waste Water Treatment Plant (WWTP).
Maximum Design Option (MDO)	The design option that is assessed for each impact and which will result in the greatest impact (e.g., largest footprint, longest exposure, or largest dimensions). Unless otherwise identified in the assessment it can be assumed that any other (lesser) scenario for that impact will result in no greater significance than that assessed and presented in the EIAR. The design information is based on the best available information and the parameters outlined in the project description chapters are realistic and considered estimations of future design parameters.
Offshore Infrastructure	Wind turbine generators, offshore substation platform, inter array cables offshore export cables and landfall works below MHWS.
Offshore Export cable corridor (ECC)	The Offshore Export Cable Corridor (north and south route) (one corridor and two routes)
Project Design Envelope	A description of the range of possible elements that make up the Project's design options under consideration, as set out in detail in the project description. This envelope is used to define the Project for Environmental Impact Assessment (EIA) purposes when the exact engineering parameters are not yet known.
The Applicant	The Applicant for Dublin Array is defined as Kish Offshore Wind Limited on behalf of Kish Offshore Wind Limited and Bray Offshore Wind Limited.
Wind turbine generators (WTG)	All the components of a wind turbine, including the tower, nacelle and rotor.

Acronyms

Term	Definition
ADO	Alternative Design Option
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
CAA	Civil Aviation Authority
CD	Candela
CEA	Cumulative Effects Assessment
DAHG	Department for Culture, Heritage and the Gaeltacht
DCCAE	Department of Communications, Climate Action and Environment
DHPLG	Department of Housing, Planning and Local Government
DTM	Digital Terrain Modelling
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
ELC	European Landscape Convention
EIAR	Environmental Impact Assessment Report
EPA	Environment Protection Agency
ES	Environmental Statement
FoV	Field of View
GCP	Grid Connection Point
GIS	Geographical Information System
GLVIA 3	Guidelines for Landscape and Visual Impact Assessment 3rd Edition
GPS	Geographical Positioning System
GW	Gigawatt
FoV	Field of View
HAZ	High Amenity Zone
HVAC	High Voltage Alternating Current
IALA	International Association of Lighthouse Authorities
LAT / mLAT	Lowest Astronomical Tide/ metres relative to Lowest Astronomical Tide
LCA	Landscape Character Area
LCT	Landscape Character Type
LI	Landscape Institute
LPA	Local Planning Authority

Term	Definition
LVIA	Landscape and Visual Impact Assessment
MDO	Maximum Design Option
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
MPDM	Marine Planning and Development Management
MSL	Mean Sea Level
MW	Megawatt
nm	Nautical Miles
NP	National Park
NPWS	National Parks and Wildlife Service
Offshore ECC	Offshore Export Cable Corridor
ORE	Offshore Renewable Energy
OSI	Ordnance Survey Ireland
OSP	Offshore Substation Platform
PVR	Principal Visual Receptor
ROI	Republic of Ireland
RSCA	Regional Seascape Character Area
RSL	Relative Sea Level
RWE	RWE Renewables Ireland Ltd (a wholly owned subsidiary of RWE AG)
SAAO	Special Area Amenity Order
SAR	Search and Rescue
SCT	Seascape Character Type
SEA	Strategic Environmental Assessment
SLVIA	Seascape, Landscape and Visual Impact Assessment
SNH	Scottish Natural Heritage (now known as NatureScot)
SPS	Significant Peripheral Structures
TCC	Temporary Construction Compound
TJB	Transition Joint Bay
UK	United Kingdom
VNS	Visual Nature Studio
VP	Viewpoint
WTG	Wind turbine generator
ZTV	Zone of Theoretical Visibility

15SLVIA

15.1 Introduction

- 15.1.1 This chapter presents the Seascape, Landscape and Visual Impact Assessment (SLVIA) for the proposed offshore infrastructure of Dublin Array Wind Farm (hereafter referred to as Dublin Array). The chapter provides an overview of the existing environment where the offshore infrastructure is proposed, followed by an assessment of the potential impacts and associated mitigation for the offshore infrastructure during the construction, operation and decommissioning phases.
- 15.1.2 The assessment has been undertaken by Optimised Environments Ltd (OPEN) on behalf of the Applicant. The author is Jo Phillips, a qualified landscape architect and Associate Member of the Landscape Institute, with 22 years' experience of landscape and visual impact assessment and six years' experience of working on Dublin Array.
- 15.1.3 This chapter is accompanied by the following Appendices in Volume 4:
- ▲ Volume 4, Appendix 3.15-1: SLVIA Methodology (hereafter referred to as SLVIA Methodology Appendix);
 - ▲ Volume 4, Appendix 3.15-2: Visual Assessment of Turbine Lighting (hereafter referred to as Visual Assessment of Turbine Lighting Appendix);
 - ▲ Volume 4, Appendix 3.15-3: SLVIA GIS Figures (hereafter referred to as SLVIA GIS Figures Appendix); and
 - ▲ Volume 4, Appendix 3.15-4: SLVIA Visualisations (hereafter referred to as SLVIA Visualisations Appendix).
- 15.1.4 The methodology followed in the SLVIA is outlined in sections 15.4 and 15.5 of this chapter and presented in detail in the SLVIA Methodology Appendix. The assessment presents both a baseline and cumulative assessment, considering the impacts of Dublin Array offshore infrastructure in respect of the baseline context of other operational projects, as well as the cumulative impacts of Dublin Array offshore infrastructure with other proposed projects.
- 15.1.5 The focus of the chapter is on seascape character, landscape character and visual receptors and the impacts on these receptors as a result of the Dublin Array offshore infrastructure during the construction, operational and decommissioning phases. The key components of the offshore infrastructure that are assessed include the offshore wind turbine generators (WTGs) and the offshore substation platform (OSP), which are collectively located within the array area. The scope of the assessment is presented in section 15.9.
- 15.1.6 A detailed description of the offshore infrastructure is presented in Volume 2, Chapter 6: Project Description (hereafter referred to as the Project Description Chapter) and a summary of the key parameters for assessment in respect of the SLVIA is presented in section 15.10.

15.1.7 This EIAR chapter considers the seascape, landscape and visual impacts for Dublin Array alone and cumulatively, and should be read in conjunction with the following chapters of the EIAR, due to the potential interactions between the technical aspects:

- ▲ Volume 3, Chapter 12: Aviation and Radar (hereafter referred to as the Aviation Chapter);
- ▲ Volume 5, Chapter 8: Archaeology Cultural Heritage (hereafter referred to as the Archaeology and Cultural Heritage Chapter); and
- ▲ Volume 3, Chapter 17: Offshore Socio-economic, Tourism, Recreation and Land Use (hereafter referred to as the Offshore Socio-economic, Tourism, Recreation and Land Chapter).

15.2 Regulatory background

15.2.1 The legislation, policy and guidance relevant to the whole planning application is set out in Volume 2, Chapter 2: Consents, Legislation, Policy & Guidance (hereafter referred to as the Policy Chapter). The principal legislation, policy and guidance relevant to this chapter is set out in Annex A.

15.2.2 Guidance on Environmental Impact Statement (EIS) and Natura Impact Statement (NIS) Preparation for Offshore Renewable Energy Projects prepared by the Department of Communications, Climate Action and Environment (DCCAE) 2017¹, provides sign posting to good practice in the preparation of EIAR, with the following extract providing guidance specific to SLVIA (Page 54 of the 2017 guidance).


“A useful definition of the seascape is “the visual and physical conjunction of land and sea which combines maritime, coastal and hinterland character” (Scottish Natural Heritage, 2012). Particular attention needs to be paid to effects on views from purpose-built tourism facilities, especially hotels, as well as touring routes and walking trails (Failte Ireland, 2011). It should be noted offshore wind farms may be viewed in a positive light reflecting a modern environmentally responsibility approach to fulfilling energy requirements. This SLVIA adopts standard landscape and visual assessment methodologies (e.g. character definition, alternatives, assessment), which are adapted to the marine and coastal environments. It consists primarily of an assessment of the effects upon the:

- *character of the seascape and landscape and its sensitivity (maritime, coastal edge, intertidal zones and hinterland); and*
- *particular views and visual amenities (from both land and sea).*

Various methods can be used that include identifying Zones of Theoretical Visibility (ZTV). This is the process for determining the visibility of an object in the surrounding landscape using computer modelling and digital terrain mapping. Importantly, interactions with other environmental considerations, (e.g. tourism and marine leisure) need to be an integral part of

¹Department of Communications, Climate Action and Environment (2017). Guidance on EIS and NIS Preparation for Offshore Renewable Energy Projects.

the assessment. Wind farms in particular, also have significant potential for cumulative and in-combination visual effects that needs to be considered.”

- 15.2.3 This chapter considers the effect of the offshore infrastructure on the character of the seascape and landscape, taking into account specific receptor sensitivities, as well as particular views and visual amenity from land, coast and sea. ZTVs have been used to identify potential seascape, landscape and visual receptors and the assessment covers potential cumulative effects. In terms of adopting ‘standard landscape and visual assessment methodologies’, the standard methodology adopted by all landscape professionals in the Republic of Ireland (Ireland) and the UK is ‘Guidelines for Landscape and Visual Impact Assessment’ Third Edition (GLVIA3)² and the accompanying ‘Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third Edition’³. GLVIA3 has been used as the basis of the SLVIA methodology, as described in the SLVIA Methodology  and was used to inform this SLVIA chapter and accompanying appendices.
- 15.2.4 Guidance on Environmental Impact Statement (EIS) and Natura Impact Statement (NIS) Preparation for Offshore Renewable Energy Projects (2017)⁴ require a comprehensive understanding of the receiving environment to allow for an assessment of the likely significant effects of the offshore infrastructure and, as such, this baseline establishes:
- ▲ The seascape character of the foreshore and coastal edge;
 - ▲ The landscape character of the hinterland and interior, including designated landscapes; and
 - ▲ The visual amenity of visual receptors at sea, along the coastal edge and within the hinterland and interior.
- 15.2.5 In addition to identifying relevant data sources, the guidance also identifies effective communication and consultation as a key element in designing and securing consent for marine renewable projects. It highlights the need for early consultation with competent authorities, key stakeholders and other users. This approach has been followed for Dublin Array with ongoing consultation with interested parties to ensure all relevant baseline data sources are captured. Further detail on consultation is provided in Table 1 in section 15.3 below.

15.3 Consultation

- 15.3.1 As part of the EIA for Dublin Array, non-statutory consultation has been undertaken with various statutory and non-statutory bodies. In accordance with recommendations outlined in the DCCAE guidance⁵, a Scoping report (RWE, 2020) was made publicly available and issued to statutory consultees on 9th October 2020. Table 1 provides a summary of the consultation undertaken for SLVIA to date for Dublin Array.

² <https://www.landscapeinstitute.org/technical/glvia3-panel/>

³ [Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment \(GLVIA3\) LITGN-2024-01 - Landscape Institute](#)

⁴ <https://www.gov.ie/en/publication/3d6efb-guidance-documents-for-offshore-renewable-energy-developers/>

⁵ Guidance on Environmental Impact Statement (EIS) and Natura Impact Statement (NIS) Preparation for Offshore Renewable Energy Projects (Environmental Working Group of the Offshore Renewable Energy Steering Group and the DCCAE, 2017)

Table 1 Summary of consultation relevant to SLVIA

Date	Consultation type	Consultee	Key issue(s) raised	Response and Section where addressed
Scoping Responses				
5 th August 2019	Scoping Opinion	Dublin City Council, Fingal County Council, Dún Laoghaire and Rathdown County Council and Wicklow County Council	An SLVIA project action plan (2019) was presented to consultees which set out the relevant guidance and policy, the proposed methodology for the SLVIA and the proposed scope of receptors to be assessed. Questions were posed in an attempt to prompt responses from the consultees. No responses were received.	N/A
19 th December 2020	Scoping Opinion	Dublin City Council	Request for an additional representative viewpoint to be included at Poolbeg Strategic Development Zone.	Viewpoint added with baseline description presented in section 15.7, and assessments in sections 15.12 and 15.13 of this chapter.
17 th December 2020	Scoping Opinion	Royal Irish Yacht Club.	Concerns expressed regarding the potential visual impacts of the offshore infrastructure.	An assessment of all potential effects during construction and operation are presented in sections 15.12 and 15.13 of this chapter.
Informal Consultation				
23 rd April 2019	Consultation Meeting	Dún Laoghaire and Rathdown County Council	County Development Plan 2017 DPHLG National Landscape Strategy use of NatureScot in absence of comprehensive Irish Guidance	N/A

Date	Consultation type	Consultee	Key issue(s) raised	Response and Section where addressed
18 th January 2024	Consultation Letter	Failte Ireland	Attention needs to be given to effects on views from existing purpose-built tourism facilities, as well as views from touring routes, walking trails, scenic viewing points and greenways. Also, consideration needed of scale and sighting of individual and cumulative developments, and effects on natural attractions.	Effects on visual receptors visiting tourist attractions are assessed in section 15.12 and 15.13. Cumulative effects are assessed in section 15.15. Effects on landscape character and landscape designations are assessed in section 15.12 and 15.13.
27 th February 2024	Consultation Meeting	Dublin County Council	DCC requested a viewpoint from within Poolbeg SDZ, with agreement this could be produced as a wireline.	This is included as Figure 3.15.78 in the SLVIA Visualisations Appendix.

15.4 Methodology

15.4.1 For a full description of the methodology as to how this EIAR was prepared, see Volume 2 Chapter 3, EIA Methodology (hereafter referred to as the EIA Methodology Chapter). The methodology that follows below is specific to this chapter.

Study area

15.4.2 IEMA Guidance (IEMA, 2015 and 2017) recommends a proportionate EIA focused on the significant effects and a proportionate ES topic chapter. An overly large SLVIA study area may be considered disproportionate if it makes an understanding of the key impacts of the offshore infrastructure of Dublin Array more difficult.

15.4.3 This is supported by LVIA Guidance produced by the Landscape Institute (GLVIA3) (Landscape Institute and IEMA, 2013) (para 3.16). This guidance recommends that *“The level of detail provided should be that which is reasonably required to assess the likely significant effects”*. Para 5.2 at p70 also states that *“The study area should include the site itself and the full extent of the wider landscape around it which the proposed development may influence in a significant manner”*.

15.4.4 Other wind farm specific guidance, such as NatureScot’s ‘Visual Representation of Wind Farms Guidance’ (NatureScot, 2017) recommends that ZTV distances are used for defining study area based on wind turbine height. This guidance recommends a 45km radius for wind turbine generators (WTGs) greater than 150 m to blade tip (para 48, p12), however due to the age of guidance it does not go beyond WTGs above 150m in height. The height of current offshore wind turbine models has now exceeded the heights covered in this guidance. The NatureScot guidance recognises that greater distances may need to be considered for larger WTGs used offshore, as is the case for the SLVIA study area for the Offshore Infrastructure of Dublin Array. Despite the absence of specific guidance, consultation with statutory consultees on other similar offshore wind farms in Ireland and the UK, has led to the study areas of SLVIAs for other offshore wind farms typically being set at 50km.

15.4.5 The boundaries of the study areas used in the SLVIA generally define a limit beyond which professional judgement considers it would be unlikely for significant seascape, landscape and visual impacts to arise. This judgement is based on previous working knowledge of similar scale offshore wind farms, for example Awel Y Mor off the north coast of Wales. This combines an understanding of the sensitivity of the seascape, landscape and visual receptors relevant to Dublin Array with the potential effects that may arise during the construction, operation and decommissioning of the offshore infrastructure.

- 15.4.6 Production of ZTV maps is usually one of the first steps of Visual Impact Assessment, helping to inform the selection of the Study Area within which impacts will be considered in more detail and the identification of sensitive vantage points (NatureScot (2017). Visual Representation of Windfarms, Guidance (Version 2.2). ZTV maps were generated to indicate the extent to which the Dublin Array offshore infrastructure will be theoretically visible from any point in the study area. The ZTVs are calculated based on the height of the landform relative to the height of the offshore infrastructure. The ZTVs do not take into account the screening effect of woodland or other vegetation, buildings or other local features. As a result, the ZTVs present a conservative worst-case assumption in respect of theoretical visibility.
- 15.4.7 ZTVs have been used to inform this process by highlighting extents and levels of theoretical visibility, with Figures 3.15.9a, 3.15.9b and 3.15.9c illustrating blade tip visibility, Figures 3.15.10a, 3.15.10b and 3.15.10c illustrating hub height visibility and Figure 3.15.11a and 3.15.11b illustrating the horizontal angle visibility (SLVIA GIS Figures Appendix).
- 15.4.8 The ZTVs show how theoretical visibility spreads continuously across the Irish Sea to the north, east and south of the array area and extending beyond the extent of the 50km study area. It also shows how theoretical visibility spreads continuously across the first 10km to the west, north-west and south-west, and almost continuously along those coastal edges within a range of between approximately 10 and 20km, but that beyond the coastal edge, the landform of the hinterland gradually reduces the levels and extents of theoretical visibility. This means that most patches of theoretical visibility are contained within the first 30km from the boundary of the array area.
- 15.4.9 The main exception occurs in the north-west sector of the study area (Figure 3.15.9b), where the lower-lying landform of Dublin City and its surrounds, means that theoretical visibility extends beyond 50km. The extent of urban development in this area will substantially reduce the extents of actual visibility by screening seaward views. The likelihood of significant effects occurring in respect of landscape and visual receptors in this north-west sector will be largely reduced by the presence and influence of the city and the large-scale developments in Dublin city centre and the Dublin Port. Site reconnaissance has supported this expert opinion through experiencing the very limited occurrence of open views from the city centre, the harbours and wider urban and rural parts of this sector towards the offshore infrastructure. Where open views do occur, the separation distance from the offshore infrastructure, combined with the influence of urban development, will limit the potential for significant effects to arise.
- 15.4.10 An initial search area of 50km radius around the offshore WTGs was used to carry out an initial assessment, and this highlighted the landscape and visual receptors with potential to be significantly affected occur within a 30km radius around the offshore WTGs. While the SLVIA focuses largely on the 30km radius area within which, seascape, landscape and visual receptors would be most susceptible to significant effects, for the purposes of the baseline data presented in the following section, a 50km study area has been considered.

Baseline data

- 15.4.11 The assessment has been initiated through a desk study of the 50km study area around the offshore WTGs. This study has identified aspects of the seascape, landscape and visual resource for consideration in the SLVIA, including coastal and landscape character typologies, landscape-related planning designations, settlements, and routes including roads, national cycle routes and long-distance walking routes. Cumulative developments have also formed an important consideration in the desk study by helping to identify those landscape and visual receptors with potential to undergo significant cumulative effects as set out at section 15.15.
- 15.4.12 ZTVs in Figures 3.15.9 to 3.15.25 in the SLVIA GIS Figures Appendix, and photomontages, in Figures 3.15.26 to 3.15.51 in the SLVIA Visualisations Appendix, have provided an indication as to which landscape and visual receptors are likely to be important in the assessment.
- 15.4.13 Field surveys have been carried out throughout the 50km study area, with the focus on those areas that are shown on ZTVs to gain theoretical visibility of the Dublin Array offshore infrastructure. The field survey identified relevant seascape, landscape and visual receptors and an assessment has been carried out regarding their sensitivity to the project. Representative viewpoints have also been identified and photography undertaken to present the baseline character of the receiving environment. These form the basis for the generation of the photomontages which include models of the Dublin Array offshore infrastructure.
- 15.4.14 Seascape receptor is a term used to describe areas of distinct coastal character, including the coastline and the inshore waters. Landscape receptors is a term used to describe areas of distinct landscape character and also include landscape designations. Visual receptor is a term used to describe the people experiencing views and includes residents, road-users, walkers and other recreational-users. And lastly, 'principal visual receptors' is a term used to describe, for example, settlements, roads, footpaths, ferry routes, which mark a concentration of visual receptors experiencing views. These definitions are set out in GLVIA3 and described in detail in the SLVIA Methodology Appendix. It should be noted that the term 'walkers' is used in the assessment to refer more generally to all people engaged in outdoor activities, such as joggers, horse riders and sight-seers.

Data sources

- 15.4.15 The data sources used to inform the assessment, and the confidence levels associated with each data source, are listed in Table 2 below. Note that relevant information on landscape character assessment may be contained in non-current local development plans.

Table 2 Data sources for SLVIA

Data sources	Year of Publication	Data Type	Confidence / Resolution	Comment
Ordnance Survey Ireland (OSI) 0.0+. 50,000 Raster from Client	2019	Mapping information	High	OSI is the national data base for mapping information
Ordnance Survey Ireland 210,000 Raster from Client	2019	Mapping information	High	Larger scale mapping information

Data sources	Year of Publication	Data Type	Confidence / Resolution	Comment
Ordnance Survey Ireland 10m DTM	2020	Digital Terrain Model	High	Detailed levels data
Ordnance Survey Ireland Administrative Boundaries	2019	Administrative Boundaries	High	Local government boundaries
Ordnance Survey Ireland Open Data	2019	Visual Receptors	High	Roads, Railway, Settlement, Ferry Routes
Dún Laoghaire Rathdown County Council - County Development Plan 2022-2028: Written Statement	2022	Landscape Character Assessment and Landscape Designations	High	Absence of national guidance on the assessment of landscape character
Fingal County Council - Fingal Development Plan 2023-2029.	2023	Landscape Character Assessment and Landscape Designations	High	Absence of national guidance on the assessment of landscape character
Kildare County Development Plan 2005 - 2011	2004	Landscape Character Assessment, Visual Receptors, Landscape Designations	High	Absence of national guidance on the assessment of landscape character
Meath County Development Plan 2013-2019	2013	Landscape Character Assessment	High	Absence of national guidance on the assessment of landscape character
South Dublin County Council Development Plan 2022-2028	2022	Landscape Character Assessment and Landscape Designations	Medium	Absence of national guidance on the assessment of landscape character
Wexford County Council Development Plan 2022-2028	2022	Landscape Character Assessment	High	Absence of national guidance on the assessment of landscape character
Wicklow County Council - Wicklow County Development Plan 2016-2022.	2016	Landscape Character Assessment and Landscape Designations	High	Absence of national guidance on the assessment of landscape character
The Marine Institute - Regional Seascape Character Assessment for Ireland 2020 Draft Consultation.	2020	Seascape Character Assessment	Medium	Initial draft without input from consultation review.
Heritage Council Ireland	2020	Pilgrim Paths	High	Data set covers the island of Ireland

Data sources	Year of Publication	Data Type	Confidence / Resolution	Comment
Department of Culture, Heritage and the Gaeltacht - National Inventory for Architectural Heritage of designed landscapes	2021	Designed Landscapes	High	Collection and recording of data follows best practice guidance
Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA3)	2013	Accepted guidance for the production of LVIA	High	Guidelines setting out methodology and approach for LVIA
Notes and Clarifications on Aspects of Landscape and Visual Impact Assessment Third Edition	2024	Accepted accompanying guidance for the production of LVIA	High	Notes and clarifications on methodology and approach for LVIA
Met Eireann - Daily data.	2015-2024	Recorded data on visibility from weather station at Phoenix Park in Dublin.	High	Collection and recording of data follows best practice guidance
Dublin Array Scoping Report and Consultation Comments	2020	Defining scope of Dublin Array SLVIA	High	Feedback provided by statutory and other consultees on scope of EIA Report

Assessment methodology

15.4.16 EIA Methodology Chapter describes the generic methodology used to undertake the EIA.

While the SLVIA methodology broadly accords with this generic methodology, it has been developed to reflect the specific requirements of assessing seascape, landscape and visual receptors and, therefore, presents a more specific methodology relevant to this topic. The SLVIA Methodology Appendix sets out the full methodology for the SLVIA, while a summary of the key approach is presented below.

15.4.17 As outlined in section 15.2, the assessment will be undertaken in accordance with GLVIA3, and other best practice guidance set out in SLVIA Methodology Appendix. The SLVIA assesses the potential impacts of the project on seascape, landscape and visual receptors within the study area. This includes the likely impacts of the offshore WTGs, OSP and other associated infrastructure including the vessels and plant required during construction and decommissioning.

Categories of effects

- 15.4.18 The SLVIA has been carried out using a methodology specifically devised by OPEN (appointed specialists) for the assessment of energy developments. While this generally aligns with GLVIA3 guidance, where it diverges from specific aspects of this guidance, reasoned professional justification for this is presented in SLVIA Methodology Appendix.
- 15.4.19 The potential impacts of the offshore infrastructure on seascape, landscape and visual receptors are grouped into three categories: Effects on seascape and landscape character, effects on views, and cumulative effects.
- 15.4.20 Effects on seascape and landscape character arise either through the introduction of new elements that physically alter the pattern of elements that makes up seascape character, or through visibility of the project, which may alter the way in which the pattern of elements of that seascape or landscape is perceived. The receptors in this case are seascape and landscape character receptors, which are seascape and landscape character types and designated landscapes.
- 15.4.21 The assessment of effects on views is an assessment of how the introduction of the project, in this case the proposed Dublin Array offshore infrastructure, would affect the views experienced by people throughout the study area. The assessment of effects on views is carried out in two parts:
- ▲ An assessment of the effects that the project would have on a series of viewpoints that have been selected to represent the views experienced by people, for example, residents, walkers, road-users and boat-users, throughout the study area; and
 - ▲ An assessment of the effects that the project would have on views from principal visual receptors, which are the notable settlements, routes, features and attractions found throughout the study area.
- 15.4.22 Cumulative effects arise where the study areas for two or more developments overlap such that multiple developments are experienced at proximity where they may have an incremental effect, or where developments may combine to have a sequential effect, irrespective of any overlap in visibility. Cumulative assessments typically include developments that are under construction and consented, and those for which planning applications or development consent applications have been submitted. The cumulative assessment is made against a baseline comprising all existing wind farms or other relevant developments, including infrastructure in the marine environment.
- 15.4.23 In respect of the cumulative environmental assessment (CEA) for Dublin Array, this considers the East Coast Phase 1 projects. These are the offshore wind farm projects awarded a Marine Area Consent (MAC) in 2022 and include Dublin Array, North Irish Sea Array (NISA), Oriel Offshore Wind Farm, Codling Wind Park (CWP) and Arklow Bank Phase 2.

15.5 Assessment criteria

15.5.1 Essentially, the seascape, landscape and visual effects, and their significance, is determined by an assessment of the 'sensitivity' of each receptor or group of receptors and the 'magnitude of change' that would arise owing to the introduction of the offshore infrastructure of Dublin Array. The evaluation of sensitivity takes account of the value and susceptibility of the receptor to the offshore infrastructure of Dublin Array. This is combined with an assessment of the magnitude of change which takes account of the size and scale of the proposed change, the geographical extent of that change, and the duration of that change. By combining assessments of sensitivity and magnitude of change, a level of seascape, landscape or visual effect can be evaluated and determined. The resulting effect is described in terms of whether it is significant or not significant, and the level of effect described as major, major-moderate, moderate, moderate-minor or minor. There will be no effect where there is no change. The type of effect is described as either direct or indirect; temporary or permanent (reversible); cumulative; and beneficial, neutral or adverse.

Sensitivity of receptor criteria

Sensitivity of seascape and landscape receptors

- 15.5.2 The sensitivity of a seascape or landscape character receptor is an expression of the combination of the judgements made about the susceptibility of the receptor to the type or nature of change proposed, and the value attributed to that receptor.
- 15.5.3 The value of a seascape or landscape character receptor is a reflection of the value that society attaches to that seascape or landscape. The assessment of the seascape or landscape value will be classified as high, medium-high, medium, medium-low or low, and the basis for this assessment will be made clear using evidence and professional judgement, based on a range of factors set out in Table 15.2 of the SLIVIA Methodology Appendix.
- 15.5.4 The susceptibility of a seascape or landscape character receptor to change is a reflection of its ability to accommodate the changes that will occur as a result of the type or nature of change proposed. This is without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies. Some landscape receptors are better able to accommodate development than others due to certain characteristics that are indicative of capacity to accommodate change. These characteristics may or may not also be special landscape qualities⁶ that underpin designated landscapes.

⁶ Special landscape qualities are defined in NatureScot guidance but not in Irish guidance. NatureScot defines Special Qualities as “the characteristics that, individually or combined, give rise to an area’s outstanding scenery” (see: <https://www.nature.scot/professional-advice/protected-areas-and-species/protected-areas/national-designations/national-scenic-areas/nsa-special-qualities>).

- 15.5.5 An overall sensitivity assessment of the seascape or landscape receptor is made by combining the assessment of the value of the seascape or landscape character area and its susceptibility to change. The evaluation of seascape or landscape sensitivity will be applied for each seascape or landscape receptor - high, medium-high, medium, medium-low and low. The basis for the assessments will be made clear using evidence and professional judgement in the evaluation of sensitivity for each receptor. Criteria that tend towards higher or lower sensitivity are set out in Table 15.2 of the SLVIA Methodology Appendix.

Sensitivity of visual receptors

- 15.5.6 The sensitivity of visual receptors will be determined by a combination of the value of the view and the susceptibility of the visual receptors to the type or nature of change proposed.
- 15.5.7 The value of a view or series of views reflects the recognition, and the importance attached either formally through identification on mapping as a viewpoint or being subject to planning designations, or informally through the value which society attaches to the view(s).
- 15.5.8 Susceptibility relates to the nature of the viewer experiencing the view and how susceptible the viewer is to the potential effects arising in respect of the experience of their views or visual amenity. An expert opinion to determine the level of susceptibility relates to the nature of the viewer, whether they be resident, road-user or walker, and their experience from that particular viewpoint or series of viewpoints, classified as high, medium-high, medium, medium-low or low.
- 15.5.9 An overall level of sensitivity will be applied for each visual receptor or view – high, medium-high, medium, medium-low or low – by combining individual assessments of the value of the view and the susceptibility of the visual receptor to change. Each visual receptor, meaning the particular person or group of people likely to be affected at a specific viewpoint, is assessed in terms of their sensitivity. The basis for the assessments will be made clear using evidence and professional opinion in the evaluation of each receptor. Criteria that tend towards higher or lower sensitivity are set out in Table 15.4 of the SLVIA Methodology Appendix.

Magnitude of change criteria

- 15.5.10 The magnitude of change is an expression of the scale of the change that will result from the offshore infrastructure of Dublin Array and is dependent on a number of variables regarding the size or scale of the change and the geographical extent over which the change will be experienced. A separate assessment will also be made of the duration and reversibility of seascape, landscape and visual effects.

Magnitude of change – seascape and landscape receptors

- 15.5.11 The magnitude of change affecting seascape and landscape receptors is an expression of the scale of the change that will result from the offshore infrastructure of Dublin Array and is dependent on a number of variables regarding the size or scale of the change and the geographical extent over which the change would be experienced.

15.5.12 The ‘magnitude’ or ‘degree of change’ resulting from the offshore infrastructure of Dublin Array is described as ‘High’, ‘High-medium’, ‘Medium’, ‘Medium-low’ ‘Low’ or ‘Negligible’. In assessing magnitude of change, the assessment will focus on the size or scale of change and its geographical extent. The duration and reversibility are stated separately in relation to the assessed effects (i.e. Short, medium or long-term and temporary or permanent). The basis for the assessment of magnitude for each receptor will be made clear using evidence and professional judgement. The levels of magnitude of change that can occur are defined in Table 15.3 of the SLVIA Methodology Appendix.

Magnitude of change – visual receptors

15.5.13 The visual magnitude of change is an expression of the scale of the change that will result from the offshore infrastructure of Dublin Array and is dependent on a number of variables regarding the size or scale of the change and the geographical extent over which the change will be experienced. A separate assessment will also be made of the duration and reversibility of visual effects.

15.5.14 The geographic extent over which the visual effects will be experienced will also be assessed, which is distinct from the size or scale of effect and is described in terms of the physical area or location over which it would be experienced (described as a linear or area measurement). The extent of the effects will vary according to the specific nature of the offshore infrastructure of Dublin Array and is principally assessed through ZTV, field survey and viewpoint analysis of the extent of visibility likely to be experienced by visual receptors.

15.5.15 The ‘magnitude’ or ‘degree of change’ resulting from the offshore infrastructure of Dublin Array is described as ‘High’, ‘High-medium’, ‘Medium’, ‘Medium-low’ ‘Low’ and ‘Negligible’ as defined in Table 15.5 of the SLVIA Methodology Appendix. In assessing the magnitude of change the assessment has focused on the size or scale of change and its geographical extent. The duration and reversibility are stated separately in relation to the assessed effects (i.e. as short / medium / long-term and temporary / permanent). The basis for the assessment of magnitude for each receptor will be made clear using evidence and professional judgement. Examples of criteria that tend towards higher or lower magnitude of change that can occur on views and visual receptors are set out in Table 15.5 of the SLVIA Methodology Appendix.

Defining the significance of effect

15.5.16 The matrix presented in Table 3 is used as a guide to illustrate the SLVIA process. In line with GLVIA3 and its emphasis upon the application of professional judgement, reliance upon a matrix is avoided through the presentation of clear and accessible narrative, describing the rational assessment made for each landscape and visual receptor. Such narrative assessments provide a level of detail over and above the outline assessment provided by use of the matrix alone.

15.5.17 The landscape and visual assessment involves a combination of quantitative and qualitative assessment and, where relevant cross references will be made to objective evidence, baseline figures and photomontage visualisations to support the assessment conclusions. Often a consensus of professional opinion has been sought through consultation, internal peer review, and the adoption of a systematic, impartial, and professional approach. Importantly each effect results from its own unique set of circumstances and each has been assessed on a case-by-case basis. The matrix, as presented in Table 3, should be considered as a guide and any deviation from this guide will be clearly explained in the assessment.

15.5.18 Significant seascape, landscape and visual effects are highlighted in bold and shaded dark grey in Table 3. They relate to all those effects that result in a 'Significant' effect at either a 'Major' or 'Major-moderate' level. In those boxes shaded light grey, effects are at a 'Moderate' level and can be either significant or not significant, with this decision relying on reasoned assessment and the professional judgement of the assessor. White or un-shaded boxes in Table 3.

15.5.19 indicate a not significant effect at a 'Moderate-minor', 'Minor', 'Minor-negligible' or 'Negligible' level. In those instances where there would be no effect, the magnitude will be recorded as 'no change' and the level of effect as 'no effect'.

15.5.20 The terminology presented in Table 3 and applied in the SLVIA differs from the terminology used in the other EIAR Chapters. This is because GLVIA3 is used as standard industry practice for the production of all SLVIA and LVIA in Ireland and the UK and the terminology used, therefore, aligns with the terminology presented in GLVIA3.

Table 3 Illustrative impact significance matrix

Sensitivity	Magnitude					
	High	Medium-high	Medium	Medium-low	Low	Negligible
High	Major (significant)	Major (significant)	Major-moderate (significant)	Moderate (Significant or Not Significant)	Moderate-Minor (Not Significant)	Minor (Not significant)
Medium-high	Major (Significant)	Major-moderate (Significant)	Moderate (Significant or Not Significant)	Moderate (Significant or Not Significant)	Moderate-minor (Not significant)	Minor (Not significant)
Medium	Major-moderate (Significant)	Moderate (Significant or Not Significant)	Moderate (Significant or Not Significant)	Moderate-minor (Not significant)	Minor (Not significant)	Minor-negligible (Not significant)
Medium-low	Moderate (Significant or Not Significant)	Moderate (Significant or Not Significant)	Moderate-minor (Not significant)	Minor (Not significant)	Minor-negligible (Not significant)	Negligible (Not significant)
Low	Moderate-minor (Not significant)	Moderate-minor (Not significant)	Minor (Not significant)	Minor-negligible (Not significant)	Negligible (Not significant)	Negligible (Not significant)

*In accordance with Section 3.34 of the Guidelines for Landscape and Visual Impact Assessment (GLVIA3), effects of 'Substantial' and above are considered to equate with 'significant' effects in EIA terms.

*Moderate levels of effect have the potential, subject to the assessor's professional judgement, to be significant. Moderate will be considered as significant or not significant in EIA terms, depending on the sensitivity and magnitude of change factors evaluated. These evaluations are explained as part of the assessment, where they occur.

Significance and non-significance of seascape and landscape effects

15.5.21 The level of seascape and landscape effect is evaluated through the combination of seascape and landscape sensitivity and magnitude of change. Once the level of effect has been assessed, a professional opinion and expert judgement is then made as to whether the level of effect is 'significant' or 'not significant'. This process is assisted by the matrix in Table 3 which is used to guide the assessment. The factors considered in the evaluation of the sensitivity and the magnitude of the change resulting from the offshore infrastructure of Dublin Array and their conclusion, will be presented in a comprehensive, clear and transparent manner. Further information is also provided about the nature of the effects and whether these would be direct or indirect; temporary, permanent or reversible; beneficial, neutral or adverse, or cumulative.

15.5.22 A significant effect would occur where the combination of the sensitivity and magnitude of change results in the offshore infrastructure of Dublin Array becoming a defining feature on the character of seascape or landscape receptor, or where changes of a lower magnitude affect a seascape or landscape receptor that is of particularly high sensitivity. A major loss or irreversible effect over an extensive area of seascape or landscape character, affecting landscape elements, characteristics and / or perceptual aspects that are key to a nationally valued landscape, are likely to be significant.

15.5.23 A not significant effect would occur where the effect of the offshore infrastructure of Dublin Array is not defining, and the seascape or landscape character of the receptor continues to be characterised principally by its baseline characteristics. Equally a small-scale change experienced by a receptor of high sensitivity may not significantly affect the special landscape quality or integrity of a designation. Reversible effects, on elements, characteristics and character that are of small-scale or affecting lower value receptors are unlikely to be significant.

Significance and non-significance of visual effects

15.5.24 The level of visual effect is evaluated through the combination of visual sensitivity and magnitude of change. Once the level of effect has been assessed, a judgement is then made as to whether the level of effect is 'significant' or 'not significant'. This process is assisted by the matrix in Table 3 which is used to guide the assessment. The factors considered in the evaluation of the sensitivity, the magnitude of the change resulting from the offshore infrastructure of Dublin Array, and the determination of the significant or not significant effect, will be presented in a comprehensive, clear and transparent manner. Further information is also provided about the nature of the effects, whether these would be direct or indirect; temporary, permanent or reversible; beneficial, neutral or adverse, or cumulative.

15.5.25 A significant effect is more likely to occur where a combination of the variables results in the offshore infrastructure of Dublin Array having a defining effect on the view or visual amenity, or where changes affect a visual receptor that is of high sensitivity.

15.5.26 A not significant effect is more likely to occur where a combination of the variables results in the offshore infrastructure of Dublin Array having a non-defining effect on the view or visual amenity, or where changes affect a visual receptor that is of low sensitivity.

15.6 Receiving environment

15.6.1 The study area for the SLVIA extends over a radius of 50km from the outer edge of the array area, as illustrated in Figure 3.15.2 of the SLVIA GIS Figures Appendix. Broadly, the SLVIA study area is defined by a western terrestrial area and an eastern maritime area. The terrestrial area extends from County Meath in the north to County Wexford in the south and from County Kildare in the east to the eastern seaboard, with County Wicklow and County Dublin making up the majority of the 50km study area. The maritime area extends approximately 60km from the eastern seaboard out across the Irish Sea.

15.6.2 While a wide range of seascape, landscape and visual receptors in the 50km study area will be influenced by the Dublin Array offshore infrastructure, significant effects on seascape character, landscape character or visual amenity are most likely to arise within the first 20km radius, with effects potentially extending to a 30km radius. It is, therefore, the seascape, landscape and visual receptors within this first 30km radius that are of greatest relevance to this SLVIA.

15.6.3 Baseline descriptions and sensitivity ratings of all seascape, landscape and visual receptors with potential to be significantly affected by the Dublin Array offshore infrastructure are presented in section 15.7. While these are largely concentrated along the eastern coastal edge between Howth Head and Wicklow, there are also landscape and visual receptors set within a 30km radius across the hinterland, albeit typically representative of more elevated and exposed locations from where the seascape still has an influence.

Array area

15.6.4 The array area will be located off the eastern coast of County Dublin and County Wicklow. It will be situated in the vicinity of the Kish and Bray Banks, at a minimum of approximately 10km off the nearest coastline at Greystones from where it will extend north. The location of the array area is shown in Figure 3.15.1 in the SLVIA GIS Figures Appendix. The array area will cover approximately 59km², in water depths ranging from 5 metres to 15 metres lowest astronomical tide (LAT).

15.6.5 As set out Volume 2, Chapter 6 Project Description of the EIAR, the offshore wind industry is driving rapid developments in advancing new wind turbine technology and innovation in wind farm design. A key component in any wind farm design is the type of WTG selected. Wind turbine technology is advancing fast with general trend towards larger rotors. The advancement is driven by the need to develop more efficient and economic turbines which deliver the lowest cost of energy to the consumer.

- 15.6.6 A number of anticipated wind turbines are consequently likely (but not certain) to be commercially available at the time the wind turbines for Dublin Array are procured. Until prototypes are constructed, installed, tested and certified, there is no certainty regarding the date of market entry or data on the relative efficiency, reliability and suitability of each option. Given the anticipated future changes in the design and availability of wind farm components, with the potential to deliver greater efficiency and reduce environmental impacts, it is not possible to determine the optimum final design configuration for Dublin Array at the current time.
- 15.6.7 An Bord Pleanála (ABP) issued an Opinion under section 287B(2) of the Planning and Development Act, 2000, as amended. (PDA) on 03 December 2024 (Opinion on Flexibility) and confirmed that, due to the specific circumstances of the development, it was satisfied that the proposed development permission application can be made before certain details of the application are confirmed. Amongst these details include the number of turbines and their rotor diameter.
- 15.6.8 Planning permission is being sought for between 39 number and 50 number (No.) WTGs and supporting tower structures depending on the model of turbine selected during the procurement process. The maximum blade tip height proposed is 309.6 m (LAT). The layouts presenting the 50 WTG layout (Option A), 45 WTG Layout (Option B) and 39 WTG layout (Option C) are included in the drawings listed below which have been submitted with the planning application (Part 2 Planning Drawings);
- 005059368-08 Site Layout Plans – Offshore Option A (236RD) (Sheet 1 of 4);
 - 005059368-08 Site Layout Plans – Offshore Option B (250RD) (Sheet 2 of 4)
 - 005059368-08 Site Layout Plans – Offshore Option C (278RD) (Sheet 3 of 4).
- 15.6.9 Component selection and the final layout of the proposed wind farm will be optimised within the constraints and limitations as set out in the planning application and assessed in the EIAR and any conditions which are attached to the development permission. The components, layout, design, and associated activities of the final development will be selected to ensure that the nature, magnitude, and duration of the environmental effects will not exceed, or be materially different from, those assessed and quantified in this EIAR.
- 15.6.10 To provide a robust assessment of the proposed development, three different design configurations have been assessed reflecting the variation in turbine numbers and rotor diameters under consideration and include
- Option A: 50 WTGs at a height of 267.6 m (LAT) to blade tip;
 - Option B: 45 WTGs at a height of 281.6 m (LAT) to blade tip; and
 - Option C: 39 WTGs at a height of 309.6 m (LAT) to blade tip.
- 15.6.11 The offshore infrastructure will also include an OSP and two Floating Lidar to record meteorological data.

The Offshore Export Cable Corridor

15.6.12 The offshore export cable corridor (Offshore ECC) will contain High Voltage Alternating Current (HVAC) subsea cables which transfer power from the OSP to the landfall. As the HVAC cables will be installed on or under the seabed, they will not be visible and, therefore, will have no effect on seascape or landscape character, and no effect on visual amenity. There is, however, the potential that during construction the additional presence and activity of maritime vessels and associated lighting during the hours of darkness will contribute to the overall effect on seascape and landscape character, as well as visual amenity, and this is factored into the assessment.

Temporary Occupation Area

15.6.13 The Temporary Occupation Area is a buffer area around the array area and offshore cable corridor, from which vessels involved in construction and decommissioning works will need to operate from time to time. Construction buoys will be present in this area and although these will be 6 m in diameter only approximately 2m will be visible above the surface with most of the buoy submerged under sea level. The low-lying location of these lights combined with the minimum distance of approximately 10km offshore, will mean that they will not form a readily visible feature during the hours of darkness and are therefore not assessed in detail in this assessment.

15.7 Defining the sensitivity of the baseline

15.7.1 The baseline section of the SLVIA records the existing conditions of the study area. Establishing a baseline provides an understanding of what makes the receiving environment distinctive, what its important infrastructure or characteristics are, and how it is currently changing prior to the introduction of the Dublin Array offshore infrastructure.

15.7.2 The baseline conditions are presented under the following headings:

- ▲ Seascape character;
- ▲ Landscape character;
- ▲ Landscape designations;
- ▲ Visual receptors and views;
- ▲ Cumulative developments; and
- ▲ Future receiving environment.

Seascape Character

- 15.7.3 Guidance on seascape characterisation is presented in Natural England's 'An Approach to Seascape Character Assessment' (2012). At page 8 this defines seascape as "an area of sea, coastline and land, as perceived by people, whose character results from the actions and interactions of land with sea, by natural and/or human factors." The methodology for Seascape Character Assessment presented in this document has been applied in the production of the 'Regional Seascape Character Assessment for Ireland 2020' (Marine Institute, December 2020).
- 15.7.4 This SLVIA considers the effects of the Dublin Array offshore infrastructure on seascape character. The seascape of Ireland's coastline is classified in the finalised version of 'Regional Seascape Character Assessment for Ireland 2020' (December 2020) produced by Minogue Associates on behalf of the Marine Institute. This report identifies Seascape Character Types (SCTs) which present a particular set of characteristics that define different types of seascape character. The report also subdivides the Irish coastline and seascape into Regional Seascape Character Areas (RSCA) and describes each one in terms of its key characteristics and features.
- 15.7.5 The four RSCAs which occur within the 50km study area are shown in Figure 3.15.4 (SLVIA GIS Figures Appendix) and listed below:
- ▲ RSCA13. South East Irish Sea;
 - ▲ RSCA14. Irish Sea, Sandbanks and Broad Bays;
 - ▲ RSCA16. Dublin Bay; and
 - ▲ RSCA16. Northeastern Irish Sea Islands and Beaches,
- 15.7.6 The six SCTs which occur in the 50km study area are shown in Figure 3.15.4 (SLVIA GIS Figures Appendix) and listed below:
- ▲ SCT6: High Granite, Sandstone Cliffs and Plateau;
 - ▲ SCT7: Broad Estuarine Bays and Complex Low Plateau and Cliff Coastline;
 - ▲ SCT8: Low lying and estuarine coastal plain with long, narrow sandy beaches;
 - ▲ SCT10: Modified Historic Urban Bay;
 - ▲ SCT11: Large islands; and
 - ▲ SCT12: Shallow offshore waters.
- 15.7.7 In this assessment RSCAs have been used as the basis of the seascape receptors rather than the SCTs as the 'Regional Seascape Character Assessment for Ireland 2020' presents more detailed descriptions of the RSCAs compared to the SCTs, including key characteristics as well as descriptions of the natural, cultural and social, and perceptual influences of each seascape.

- 15.7.8 The distribution and extent of the RSCAs and SCTs within the 50km study area are illustrated in Figure 3.15.4 and in conjunction with the ZTV in Figure 3.15.12a and 3.15.12b in the SLVIA GIS Figures Appendix. The ZTV shows that RSCA14: Irish Sea, Sandbanks and Broad Bays will be subject to theoretical visibility of the Dublin Array offshore infrastructure across the seascape and almost all of the coastline. While in respect of RSCA15: Dublin Bay, theoretical visibility will be more limited around the southern coast of Dublin Bay and screened from the northern coast of Howth Head. The almost continuous visibility across the seascape and around the northern coast of Dublin Bay will give rise to potentially significant effects. Both of these RSCAs are assessed in detail in this assessment.
- 15.7.9 The ZTV in Figure 3.15.12a and 3.15.12b in the SLVIA GIS Figures Appendix show that Howth Head to the north and Wicklow Head to the south form natural viewsheds beyond which theoretical visibility of the Dublin Array offshore infrastructure becomes screened or typically lower in level and, in both cases, more distant. The much more limited visibility that will occur along the coastlines to the north of Howth Head and south of Wicklow Head, combined with the greater separation distance means that there is not the potential for significant effects to arise as a result of Dublin Array offshore infrastructure. For these reasons RSCA13: South East Irish Sea and RSCA16: Northeastern Irish Sea Islands and Beaches have been scoped out of the detailed assessment.
- 15.7.10 The text below presents the baseline condition and sensitivity of RSCA 14 and RSCA 15 which have potential to undergo significant effects, while sections 15.12, 15.13 and 15.15 present the detailed assessments of these seascape receptors in respect of the construction, operational and cumulative effects. The potential to undergo significant effects relates to the baseline character and sensitivity of the RSCAs, as well as their proximity to the Dublin Array offshore infrastructure, their association with the array area, and the presence of other human influences that already form part of the baseline character.

Baseline and sensitivity of seascape coastal character

RSCA14: Irish Sea, Sandbanks and Broad Bays

15.7.11 The 'Key Characteristics' of RSCA 14 are presented in the 'Regional Seascape Character Assessment (SCA) for Ireland 2020' as follows;

- ▲ 'A busy and active SCA with long history and navigation and human settlement
- ▲ The busy towns of Wicklow, Greystones and Bray nowadays within the commuter zone to Dublin but retain a strong link to the sea with Wicklow the most significant fishing port in the SCA.
- ▲ Bray, well established seaside resort. The railway has afforded easy access to the town.
- ▲ The increasing presence of the Wicklow Mountains and rising topography creates a highly scenic landscape in parts with long views and panoramas afforded from Bray to Greystones and Wicklow Head Cliff Walks.

- The presence of the longest coastal wetlands at the Murrough created due to the construction of the shingle bar to facilitate the railway line.
- Increasingly urbanised towards the north, the hinterland comprises primarily agriculture and forestry.'

15.7.12 This RSCA covers a coastal stretch of approximately 27km from Killiney in the north, to Wicklow in the south. The coastal scenery is varied, with stretches of flat and sea flooded land and embayment's, occasionally backed by saltmarsh or wooded fringe, through which many small rivers flow. Where longshore drift has formed spits, these are sometimes capped with grassy sand dunes. In these lower-lying coastal areas, there are also sections of rocky shoreline and small coves. The more elevated coastal areas are made up of low to medium cliffs and rocky headlands, from where long views open out across the Irish Sea, and in which occasional small islands and sand banks can be seen. The three main settlements in this SCT; namely Bray, Greystones and Wicklow, have all evolved as harbour towns. The lower-lying sections of coast that are prone to flood risk and the more elevated sections that are steep and exposed, have remained largely undeveloped.

15.7.13 The **Medium-high** sensitivity of the RSCA is derived from the combination of its medium-high or medium value and its medium-high susceptibility to offshore infrastructure. The medium-high value relates to those sections of the RSCA which are covered by the county level designation of the Wicklow Coast AONB, while the medium value relates to the urban areas of Bray, Greystones and Wicklow, which are not covered by the AONB. The medium-high susceptibility relates to the open and exposed nature of this coast, its close association with the seascape and the relatively undeveloped nature of much of this RSCA.

RSCA 15: Dublin Bay

15.7.14 The 'Key Characteristics' of RSCA 15 are presented in the 'Regional Seascape Character Assessment for Ireland 2020' as follows;

- Distinctive and active bay framed by two resistant headlands that offer extensive views across the Bay, the Irish Sea and along the coast, north and southwards.
- Busy navigational area with commercial and recreational shipping and boats.
- Kish Lighthouse and Kish Bank a common sight for navigators in and out of the bay.
- Long and extensive coastal settlement and history has created a modified coastline and bay for much of this SCA.
- Both Howth Head and Killiney Hill, that frame the bay, are less developed and offer more tranquil space within this urbanised area. Recreational use of the coast and sea is popular.
- Significant ecological and biodiversity areas reflected in the UNESCO Biosphere and the importance of the estuarine and tidal habitats.

- ▲ The view across Dublin Bay is a much painted vista, and described in writing, songs and poetry.

15.7.15 The Dublin Bay RSCA comprises of a horse-shoe shaped coastline which encloses Dublin Bay and which is framed by Howth Head in the north and Dalkey Island in the south. This RSCA is extensively modified by urban development which extends around this coastline, with Poolbeg at Dublin Port and North Bull Island presenting notable human influences. There is a long history of settlement along this coast and the expansion of the Dublin city has led to coalescence with neighbouring coastal settlements. While the majority of the human influences occur on land, the flow of seaborne vessels in and out of Dublin Port and Dún Laoghaire spreads this influence seawards. In addition to these ports, human interventions along the coastal edge also include the DART rail line and coastal roads which have a strong influence on the coastal character. In terms of natural features, sand banks in the bay are visible during low tides and calm conditions, while the artificial North Bull Island has become a notable coastal feature and sanctuary for thousands of sea birds. The Dublin Bay Biosphere recognises the nature conservation value of this and the wider bay area.

15.7.16 This RSCA also includes the Howth Head peninsula, which sits at the northern end of the broad, crescent shaped Dublin Bay. It is connected to the mainland by a tombolo at the town of Sutton and the village of Howth and its harbour lies on the northern side of the peninsula. The key characteristic of this part of the RSCA is the steep sides of the hilly interior which fall towards the coastal edge, and which occur as steep cliffs on the north-eastern and eastern sides. There are also low and rocky coastal shelves and small sandy bays which occur intermittently in the indented sections of coastline. Development extends up to the coastal edge around the western side adjacent to Sutton, parts of the southern side around Doldrum Bay and the northern side where Howth extends along the coast. The prominent and exposed nature of Howth Head means that it is strongly influenced by the dynamics of the Irish Sea.

15.7.17 The **Medium** sensitivity of the Dublin part of the RSCA is derived from the combination of its medium value and its medium susceptibility 15.5 to offshore infrastructure. The medium value of this part of the RSCA reflects the absence of any landscape or seascape designations which would otherwise denote a special scenic value. The medium susceptibility relates to the extent of human influences along this section of coast and out into the inshore waters. While this is a highly modified coast, the absence of permanent structures in the seascape ensures that the susceptibility of this SCT to offshore infrastructure is medium.

15.7.18 The **Medium-high** sensitivity of the Howth Head part of the RSCA is derived from the combination of its medium-high value and its medium-high susceptibility to offshore infrastructure. The medium-high value of the RSCA relates to Fingal County Council's landscape designation of a Special Area Amenity Order and the Coast Highly Sensitive Landscape Area. The medium-high susceptibility of the RSCA relates to the close association between this exposed peninsula and the surrounding Irish Sea which has a notable influence on coastal character. The susceptibility is not rated high owing to the existing human influences present along the developed coast, especially the larger developments located at nearby Dublin Port.

Landscape Character

15.7.19 There is currently no national landscape characterisation of landscape character areas available in the RoI. A commitment to undertaking this assessment was set out in the Department of Arts, Heritage and the Gaeltacht's 'National Landscape Strategy for Ireland 2015-2025' (2015). Now the responsibility of the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media, this assessment is planned to be carried out at the national and county level, and with more local level landscape characterisation carried out by Planning Authorities. Most Planning Authorities have produced county level Landscape Character Assessments, along with descriptions and guidance, which, in most cases, is presented in the current Development Plans.

15.7.20 Wicklow County Council, Dún Laoghaire - Rathdown County Council, Fingal County Council and South Dublin County Council have produced county Landscape Character Assessments and these are presented in their respective adopted Development Plans, which are listed below. Dublin City have committed to producing a Landscape Character Assessment, but this has not yet been published.

- ▲ Wicklow County Council (2016), 'Wicklow County Development Plan 2016-2022 – Appendix 5: Landscape Assessment.'
https://www.wicklow.ie/Portals/0/Documents/Planning/Development-Plans-Strategies/Nat%20Reg%20County%20Plans/Wicklow%20County%20Dev%20Plan/CDP%202016%202022/v3/Volume_3_-_Appendix_5_-_Landscape_Assessment.pdf (accessed 4th November 2024);
- ▲ Dún Laoghaire - Rathdown County Council (2022), 'Dún Laoghaire – Rathdown County Development Plan 2022-2028 – Appendix 8: Landscape Assessment Study and Landscape/Seascape Character Areas.'
https://www.dlrcoco.ie/sites/default/files/atoms/files/appendices_1-13.pdf (accessed 4th November 2024);
- ▲ Fingal County Council (2017), 'Fingal Development Plan 2023-2029 – Section 9.6.14 Landscape.' [Fingal Development Plan 30.08.23 V4 WEB.pdf](#) (accessed 4th November 2024);
- ▲ South Dublin County Council (2022), 'South Dublin County Development Plan 2022-2028 Appendix 9 Landscape Character Assessment of South Dublin County'
<https://www.southdublindevplan.ie/sites/default/files/documents/Landscape%20Character%20Assessment%202016.pdf> (accessed 4th November 2024).

15.7.21 The distribution and extent of the LCAs within the 50km study area are illustrated in Figures 3.15.5a and 3.15.5b and in conjunction with the ZTV in Figures 3.15.13a and 3.15.13b in the SLVIA GIS Figures Appendix. The receptor descriptions below, presents the baseline condition and sensitivity of those LCAs which have potential to undergo significant effects and sections 15.12, 15.13 and 15.15 present the detailed assessments of the construction, operation and cumulative effects on the LCAs respectively. The potential to undergo significant effects relates to the baseline character and sensitivity of the LCAs, as well as their proximity to the Dublin Array offshore infrastructure, their association with the array area, and the presence of other human influences that already form part of the baseline character.

Baseline and sensitivity of landscape character

Wicklow: Coastal Area LCA

15.7.22 Viewpoint 2: Six Mile Point, Newcastle is located within the central part of this LCA.

15.7.23 The Coastal Area occurs in three parts; the low-lying coastal plain which lies between Wicklow in the north and Arklow in the south; the low-lying coastal plain which lies between Greystones in the north and Wicklow in the south; and the rising landform of the cliffs and hills to the north of Greystones. The Coastal Area extends over an approximate 45km distance from north to south, whilst its depth between the east coast and the western hinterland extends to approximately 2km. This LCA comprises a relatively straight coastal edge with a long and narrow ridge of shingle, with strips of dunes occupying the landward side of many of these beach areas. The coastal plain is low and flat and while agricultural practices form the primary land use, many of the natural eco-systems have been preserved. Sandy beaches are predominant features within the southern area, notable beaches include Brittas Bay and Clogga Bay and sand dunes form important ecological features at Maherabeg and Buckroneys-Brittas. Between Kilcoole and Newcastle in the northern area, an extensive area of salt marsh occurs, across which tidal rivers cross to reach the Irish Sea. To the north of Wicklow, the tidal waters of Broad Lough occupies the coastal plain, with surrounding salt marshes and reed beds providing an important habitat for wildlife. Roads and settlements are largely recessed within the hinterland where the land is drier and less prone to flooding. Intermittent minor roads extend east from the R761 coastal road to provide access to the coastal edge providing access for the many walkers who frequent the shoreline. In terms of coastal development, the one notable feature is the Irish Rail east coast rail line which has been mostly built along the shingle ridge, such that it sits tight along the coastal edge.

15.7.24 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the LCA and its medium-high susceptibility to offshore infrastructure. The medium-high value relates to the presence of the Coastal Area AONB which covers this LCA and denotes its county level value. The medium-high susceptibility relates to the open and exposed nature of much of this LCA, its close association with the seascape, and the limited influence of offshore infrastructure in the baseline.

Wicklow: Corridor Area East LCA

15.7.25 Viewpoint 3: N11 near Kilmullin is located in this LCA.

- 15.7.26 Corridor Area East LCA sits parallel to the Coastal Area (AONB) LCA, following the same north-south alignment, albeit inset approximately 2km from the eastern coast. The separating line between these two LCAs is marked by the old coastal road (R761) between Bray and Rathnew, with the area extending west to cover the N11, the national primary road between Dublin and Wexford. This LCA extends south past Wicklow and north past Greystones. This corridor landscape has been defined to reflect the influence of the national primary road on this rural area and, while the settlements are omitted from the LCA, their presence also has an influence on the character of the landscape. There is also an influence from the overhead transmission line which runs through this LCA. While the predominant alignment of the roads is north-south, minor roads connect west-east, many following the lower river valleys which are also aligned towards the coast. The nucleated settlements of Kilcoole, Newcastle and Rathnew sit on the flatter eastern fringe of this LCA while settlement in the hillier parts is typically dispersed along the minor roads.
- 15.7.27 In contrast to the flatness and openness of the adjacent coastal plain, the landform of the Corridor Area East LCA is undulating with small hills rising to approximately 80 to 90 m, which, together with mature tree cover and other dense vegetation, creates a sense of enclosure. In many parts, this establishes an introverted and well-defined rural character, which in turn, reduces the association with the eastern coast. Exceptions occur in the more elevated and open parts of this LCA, where the sea has an indirect influence on landscape character. The land mostly comprises of improved pasture for livestock farming, albeit with fields of arable on the lower and more fertile land.
- 15.7.28 The **Medium** sensitivity is derived from the combination of the medium value of the LCA and its medium susceptibility to offshore infrastructure. The medium value relates to the fact that no national or county level landscape designations cover this LCA. The medium susceptibility relates to a combination of the more enclosed nature of this LCA owing to both landform and tree cover, and its weaker association with the seascape owing to the greater separation distance and the more limited visibility of the seascape.

Wicklow: The Northern Hills LCA

- 15.7.29 Viewpoint 5: Sugar Loaf Mountain is located in this LCA.

- 15.7.30 The Northern Hills LCA comprise of Great Sugar Loaf Mountain, Little Sugar Loaf Mountain and Bray Head. These three upland areas connect the hinterland with the coast, forming a south-west to north-east band, the three hills separated by the north-south corridors of the N11 and the Greystones to Bray coastal road (R761). These areas are important locations for recreation amenity both locally and for visiting tourists, with Bray Head designated a 'Special Area Amenity Order' designation. Great Sugar Loaf Mountain marks the northern extent of the Wicklow Mountains. It is 501 m (AOD) and is characterised by its conical profile and the exposed quartzite rock around its summit giving the impression of sprinkled sugar. Little Sugar Loaf Mountain is set to the north-east and at 342 m (AOD) presents a scaled down version of the larger hill. The hills form notable landmark features from the N11 which passes between them and are made easily accessible by the minor road network and provision for parking. Set further north-east and on the eastern coastal edge, is Bray Head, which, although only 240 m (AOD), forms a prominent feature owing to its steep slopes rising up from the shoreline. This hilltop is also popular with locals and visitors and can be accessed from the Bray to Greystones Coastal Cliff path. These upland areas are used predominantly for hill sheep farming or forestry, and development is typically limited to minor roads and access tracks. While dispersed rural settlement occurs along the minor roads on the fringes of these hills, nucleated settlements lie outwith this LCA, although their presence within the wider context does have an influence on the character of the LCA. The elevated and open nature of these upland areas means that they are exposed to the wider influences of the surrounding townscapes, landscapes and seascapes. While the predominant influence is drawn from the surrounding rural landscape, there is also an influence from the urban developments of Dublin and the coast, and the broad expanse of the Irish Sea.
- 15.7.31 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the LCA and its medium-high susceptibility to offshore infrastructure. The medium-high value relates to the presence of The Northern Hills AONB which covers this LCA and Bray Head being covered by a Special Amenity Area Order both of which denote their county level value. The medium-high susceptibility relates to the open and exposed nature of much of this upland LCA and its close association with the seascape, especially close to the east coast but also in the hinterland owing to the elevated landform and openness of the seaboard aspect.

Wicklow: Glencree / Glencullen LCA

15.7.32 This area is situated along the northern edge of the Wicklow Mountains and is defined by the valleys of the Glencree, Glencullen and Dargle Rivers. This LCA is surrounded by hills to the north-west, west and south, with their run-off forming the Glencullen River and Glencree River, both of which follow a north-west to south-east alignment, and the Dargle River, which extends from the south to follow a north-east route, extending to its coastal outlet at Bray. The valley sides are typically steep and rise to form a few smaller hills around 350 m (AOD). Despite these elevated parts, the enclosure of the valley sides combined with the extent of coniferous forestry creates a largely enclosed landscape. In the lower-lying and more gently sloping valleys further east, enclosure is provided by a mix of coniferous and broad-leaved woodland. The network of minor roads and forest tracks ensure this area is accessible and adding to its popularity with walkers and cyclists. Development within this LCA is typically small in scale and rural in character and dispersed along the minor roads, albeit with the larger nucleated settlements of Enniskerry and Kilmacanogue present on the eastern edge of the LCA. The well-defined character of this LCA combined with the enclosure formed by the landform and woodland means that associations with surrounding landscapes are limited. Exceptions occur along Glencullen Road in the north, where agricultural land uses create a more open landscape.

15.7.33 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the LCA and its medium susceptibility to offshore infrastructure. The medium-high value relates to the presence of the Glencree/Glencullen AONB which covers this LCA and denotes its county level value. The medium susceptibility relates to the enclosure of landform and tree cover over lower parts and valleys of this LCA, which makes it largely introverted and moderates its associations with surrounding landscapes and the more distant seascape. The broad upland summits allow for panoramic views towards the Irish Sea; however, the developed coastline and distinctive hill summits of Great Sugar Loaf Mountain, Little Sugar Loaf Mountain and Bray Head intervene in the view to create a sense of separation and moderate the LCA's susceptibility.

Wicklow: North East Mountain Lowlands LCA

15.7.34 The North East Mountain Lowlands LCA forms the transitional landscape between the low hills of the Corridor Area East LCA to the east and the higher hills of the Mountain Uplands LCA to the west. This LCA comprises hill summits rising from approximately 300 to 360 m (AOD) along the eastern edge, which, together with the rising landform of the mountains to the west, encloses and defines the broad upland valley of the River Vartry. This is aligned from north to south, with the large Vartry Reservoir occupying the southern extent and the River Vartry continuing south-east towards its coastal outlet north of Wicklow. While the hills on the western edge are extensively afforested, the valley is largely open with hill sheep farming forming the principal land use. While the enclosure of the valley and the enclosure of the forestry reduces the association of this LCA with surrounding LCAs, the higher hills to the west form a notable influence on landscape character. The R755 is the main road through this LCA, following the north-south alignment of the river, and with other main and minor routes forming a network across the area. While residential redevelopment in this LCA is typically dispersed along the roads, there is a nucleated settlement at Roundwood.

15.7.35 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the LCA and its medium-high susceptibility to offshore infrastructure. This LCA is covered by the county level AONB designation, and this gives rise to a medium-high value. The Medium-high susceptibility relates to the fact that the defining influence in terms of landscape character comes from the immediate context of the mountain lowlands. It is in respect of this immediate context that the seascape appears as a background feature. The limited influence of large-scale development does, however, present a largely undeveloped character and ensures a medium-high susceptibility.

Wicklow: Mountain Uplands LCA

15.7.36 Viewpoint 22: Tonelagee and Viewpoint 23: Djouce Mountain are located within this LCA.

15.7.37 The Mountain Uplands LCA forms the core of the Wicklow Mountains, which are the highest hills in Ireland with 39 summits over 600m AOD and the highest peak at 925m AOD. The LCA extends from the county Dublin border in the north of the county at Kippure, towards Aughrim in the south, and from east of the Glen of Imaal in the west to as far as east of Roundwood Village. The key characteristic of this area is its mountainous landform with U-shaped valleys, lakes and other glacially formed features. This area generally relates to land immediately surrounding and above the 300 m contour line. While lower to middle slopes are often blanket covered in coniferous forestry, upper slopes and hill tops comprise open moorland. Some of the biggest hills include Djouce Mountain (725 m AOD), Tonelagee (817m AOD) and Lugnaquilla Mountain (925 m AOD), with all elevated and open areas connecting visually with the surrounding landscapes. In contrast, rivers and loughs occupy the lower-lying glens where forestry adds to the sense of enclosure. Main roads cut through this LCA, the main route being the R115 connecting Dublin with Rathdown and following the principal north-south alignment of river courses and hill groups. While a small settlement marks the cross-roads at Laragh, settlement is otherwise rural, dispersed and mostly concentrated in the glens, and there is little other built development present.

15.7.38 The **Medium-high** sensitivity is derived from the combination of the high value of the LCA and its medium-high susceptibility to offshore infrastructure. The high value relates to the presence of the Wicklow Mountain Uplands AONB which covers this LCA and Wicklow Mountains National Park which covers the central part of this LCA. These denote county level value and national value respectively. The medium-high susceptibility relates to the fact that the defining influence in terms of landscape character comes from the immediate context of the mountain uplands. It is in respect of this immediate context that the more distant seascape appears as more of a background feature.

Dún Laoghaire: Shanganagh LCA

15.7.39 Viewpoint 9: Shankill Beach is located in this LCA.

15.7.40 Shanganagh LCA is the undeveloped land between the urban areas of Shankill and Bray. It includes the cemetery at Shanganagh, Shanganagh Park and Woodbrook golf course, including the land to the west between the Dublin Road (R119) and the N11. The Dublin Road, from Shankill to Bray, traverses this area of open land, as does the DART line, albeit set closer to the coast. This area forms part of the coastal plain and is, therefore, predominantly flat and low-lying. While the land-uses preserve a sense of openness, mature tree cover creates localised enclosure, especially along the Dublin Road. In open parts closer to the coast, there is a clear association with the Irish Sea, but this diminishes across the inland portions of the LCA owing to the screening effect of landform, tree cover and built development. This area has been preserved, predominantly, as a recreational space and while development is limited, there are a number of traditional properties present as well as more recent developments to serve recreational functions.

15.7.41 The **Medium-high** sensitivity of this LCA is derived from the combination of its medium value and its medium-high susceptibility to offshore infrastructure. The medium value of the LCA is due to no scenic landscape designations in this LCA which would otherwise denote a special value. The medium-high susceptibility of the LCA to offshore infrastructure relates to the association between this coastal edge and the adjacent Irish Sea. The susceptibility is not rated high owing to the existing human influences present along the developed coast, and the enclosure from buildings and mature tree cover in parts.

Fingal: Coastal Howth Head LCA

15.7.42 Howth Head is a round-shaped peninsula, set at the northern end of the broad, crescent shaped Dublin Bay. It is connected to the mainland by a tombolo at the town of Sutton and is surrounded to the north, east and south by the Irish Sea. Ben of Howth (171 m AOD) forms the high point and with its steep-sided slopes, gives the Howth its distinctive profile. The elevation of the landform decreases more gently to the north-west, where Howth and Deer Park golf courses are situated, and to the north, where Howth Harbour and the village of Howth occupy the coastline, with more recent development extending along the coast and uphill slopes. Development from Sutton has also expanded across the tombolo and over the western side of the peninsula. The key characteristic of the LCA is the steep sides of the hilly interior which fall towards the coastal edge, and which occur as steep cliffs on the north-eastern and eastern sides. There are also low and rocky coastal shelves and small sandy bays which occur intermittently. The prominent and exposed nature of Howth Head means that it is strongly influenced by the surrounding presence of the Irish Sea.

15.7.43 The **Medium-high** sensitivity of this LCA is derived from the combination of its medium-high value and its medium-high susceptibility to offshore infrastructure. The medium-high value relates to Fingal County Council's landscape designation of a Special Area Amenity Order and the Coast Highly Sensitive Landscape Area. The medium-high susceptibility of the LCA to offshore infrastructure relates to the close association between this exposed peninsula and the surrounding Irish Sea. The susceptibility is not rated high owing to the existing human influences present along the developed coast, especially the large scale developments located along the adjacent coastline at Dublin Port.

Landscape Designations

15.7.44 A designated landscape is an area of landscape identified as being of importance at international, national or county level, either defined by statute or identified in development plans or other documents. The landscapes are designated in relation to their special qualities or features which warrant protection through the planning system. National and county level designations occur across the study area and are designated at a national level by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media and at a county level by the Planning Authority.

15.7.45 Landscape designations are used, alongside LCAs, in the assessment of effects on landscape character. Those landscape designations which occur in the study area include the national level Wicklow Mountains NP, and the county level AONBs, SAAOs and HAZs. Descriptions of landscape designations provide important information to help highlight the special qualities and sensitivities of the landscapes. Where this information is available it has been used to inform the assessment of potential impacts and where information is limited, this has been supplemented by information gained during site work conducted by the assessor. The array area is not subject to any international, national or county level seascape-related planning designations.

15.7.46 The location and extent of the designated landscapes are illustrated in Figure 3.15.6 and in conjunction with the ZTVs in Figures 3.15.14a and 3.15.14b of the SLVIA GIS Figures Appendix.

National Parks

15.7.47 Wicklow Mountains National Park (WMNP) is managed by the NPWS of the DHLGH in accordance with international criteria set down by the World Conservation Union (IUCN). The Park is included in the United Nations List of National Parks and Equivalent Reserves.

15.7.48 National Parks are areas that “exist to conserve natural plant and animal communities and scenic landscapes which are both extensive and of national importance and, under conditions compatible with that purpose, to enable the public to visit and appreciate them.” WMNP was established in 1991. It currently covers approximately 17,000 Ha and includes large expanses of blanket bog and heath of the Wicklow Uplands.

15.7.49 The WMNP has been designated primarily to protect and conserve the natural environment and is not especially focused on the scenic qualities of the landscape. Amongst the eight principal objectives set out in the Management Plan for WMNP 2005-2009, the one of relevance to SLVIA is “To maintain landscape, aesthetic and other qualities in the environs of WMNP, through liaison with neighbouring landowners and others concerned.”

AONBs

15.7.50 In respect of the protection of the AONBs against the potentially harmful effects of development, Landscape Objective NH50 of the Wicklow County Development Plan 2022-2028: Written Statement, states; “Any application for permission in the AONB which may have the potential to significantly adversely impact the landscape area shall be accompanied by a Landscape / Visual Impact Assessment, which shall include, inter alia, an evaluation of visibility and prominence of the proposed development in its immediate environs and in the wider landscape, a series of photos or photomontages of the site / development from clearly identified vantage points, an evaluation of impacts on any listed views / prospects and an assessment of vegetation / land cover type in the area (with particular regard to commercial forestry plantations which may be felled thus altering character / visibility). The Assessment shall demonstrate that landscape impacts have been anticipated and avoided to a level consistent with the sensitivity of the landscape and the nature of the designation” (WCDP 2022-2028, CPO 17.36 p.351).

15.7.51 While in the UK AONBs are used to attribute national importance to scenic landscape designations, in Ireland they have been used in Wicklow County as a county level designation and are not protected by statute.

Special Amenity Area Order / High Amenity Zone

15.7.52 In 2000 the Howth Special Amenity Area Order (HSAAO) was confirmed by the then Minister of the Environment and Local Government, with the aim of recognising the special natural, built and cultural heritage of the Howth Head peninsula. Objective NH44 in the Fingal Development Plan 2023-2029 states “Protect and enhance the special amenity value of Howth and the Liffey Valley, including its landscape, visual, recreational, ecological, geological, and built heritage value, as a key element of the County’s Green Infrastructure network and implement the provisions of the Howth and Liffey Valley Special Amenity Area Orders (SAAO)”.

15.7.53 While the HSAO covers the whole of the Howth Head peninsula, a High Amenity Zone has also been applied around the coastal areas to further denote their high landscape value. As stated in the Fingal Development Plan 2023-2029, “These are areas which consist of landscapes of special character in which inappropriate development would contribute to a significant diminution of landscape value in the County.” Of the criteria identified as being constituent to this recognised value, those of relevance to this assessment include: “afford expansive or interesting views of surrounding areas; are components in important views and prospects; and act as a backdrop to important coastal views.” Policy GINHP28 of the Fingal Development Plan 2023-2029 states: “Protect High Amenity areas from inappropriate development and reinforce their character, distinctiveness and sense of place.”

Baseline and sensitivity of landscape designations

Wicklow Mountains National Park

15.7.54 Viewpoint 22: Tonelagee and Viewpoint 23: Djouce Mountain are located in the WMNP.

15.7.55 The WMNP lies largely within the Wicklow Mountains AONB with the exception of the northern edge which extends beyond the northern boundary of the AONB. The NP has an irregular boundary which appears to be defined by the inclusion of the more scenic areas and the exclusion of the less scenic areas. The NP covers the larger hills at the core of the Wicklow Mountains, with Djouce Mountain (725 m AOD) and Kippure (757 m AOD) in the north, Mullaghcleevaun (849 m AOD) and Tonelagee (817 m AOD) in the centre and Benleagh (667 m AOD) in the south. The NP includes Glenmacnuss but excludes Glenmalur and the open hills to the north. The NP is located more towards the eastern side of the AONB, such that landscape features on the western side, including Pollaphuca Reservoir, are excluded. The NP includes the contrast between the open upland peaks and the enclosed lowland glens and loughs. While the extent of development in the NP is especially limited, the presence of roads, commercial forestry and hill sheep farming present human influences that detract from the predominantly rural character.

15.7.56 The **Medium-high** sensitivity is derived from the combination of the high value of the NP and its medium-high susceptibility to offshore infrastructure. The high value relates to the national designation of the NP which covers this area and denotes its national value. The high part of the medium-high susceptibility reflects the limited human influences which occur in the NP and in the seascape off the east coast, albeit with development evident along the coastline that lies between the NP and the seascape and as experienced from the more elevated parts of the NP. The medium part of the medium-high susceptibility relates to the fact that the NP is defined by the immediate context of the mountain uplands and lakes. It is in respect of this immediate context that the seascape appears as a background feature with a more limited influence on character.

Wicklow Mountains and Lakeshores AONB

15.7.57 Viewpoint 22: Tonelagee and 23: Djouce Mountain are located within the AONB and WMNP.

15.7.58 The extent of the Wicklow Mountain Uplands AONB coincides with the extent of the Wicklow Mountain Uplands LCA and, therefore, the description of the Mountain Uplands LCA presented at paragraph 15.7.37 also applies to the AONB as they essentially cover a similar area.

15.7.59 The **Medium-high** sensitivity is derived from the combination of the high value of the AONB and its medium-high susceptibility to offshore infrastructure. The medium-high value relates to the landscape designation of the AONB which covers this area and denotes its county level value. The high part of the medium-high susceptibility reflects the very limited human influences which occur in the AONB and in the seascape off the east coast, albeit with development evident along the coastlines from the more elevated parts of the AONB. The medium part of the medium-high susceptibility relates to the fact that the AONB is defined by the immediate context of the mountain uplands and lakes. It is in respect of this immediate context that the seascape appears as more of a background feature.

Wicklow Coast AONB

15.7.60 The extent of the Wicklow Coast AONB coincides with the extent of the Wicklow Northern Coast LCA and, therefore, the description of the Wicklow Coast LCA at paragraph 15.7.23 also applies to the AONB as they essentially cover a similar area.

15.7.61 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the AONB and its medium-high susceptibility to offshore infrastructure. The medium-high value relates to the presence of the Coastal Area AONB which covers this landscape and denotes its county level value. The medium-high susceptibility relates to the open and exposed nature of much of this AONB and its close association with the seascape, and the undeveloped character of the seascape albeit with intermittent settlements occurring along the coastal edge.

Wicklow Northern Hills AONB

15.7.62 The extent of the Wicklow Northern Hills AONB coincides with the extent of the Wicklow Northern Hills LCA and, therefore, the description of the Northern Hills LCA at paragraph 15.7.30 also applies to the AONB as they essentially cover a similar area.

15.7.63 The **Medium-high** sensitivity is derived from the combination of the high value of the AONB and its medium-high susceptibility to offshore infrastructure. The medium-high value relates to the presence of the Wicklow Mountains and Lakes AONB which covers this LCA and denotes its county level value. The medium-high susceptibility relates to the open and exposed nature of much of this upland AONB and its close association with the seascape, especially close to the east coast but also in the hinterland owing to the elevated landform and openness of the seaboard aspect.

Howth SAA / HAZ

15.7.64 Howth Highly Sensitive Landscape covers the southern and eastern parts of the Coastal Howth Head LCA and, therefore, parts of the LCA description at paragraph 15.7.42 also apply to the SAA / HAZ.

15.7.65 The **Medium-high** sensitivity of this SAA is derived from the combination of its medium-high value and its medium-high susceptibility to offshore infrastructure. The medium-high value relates to Fingal County Council's landscape designation of a Special Amenity Area. The medium-high susceptibility of the SAA relates to the close association between this exposed peninsula and the surrounding Irish Sea. The susceptibility is not rated high owing to the existing human influences present along the developed coast, especially the larger developments located along the adjacent coastline at Dublin Port.

Visual receptors and views

15.7.66 Visual receptors (see paragraph 15.4.14) include people living in settlements, travelling along roads, railways or paths, and visiting attractions in the study area. The views these people experience have been considered in the assessment as they may be affected by the offshore infrastructure of Dublin Array. It is not possible to consider every potential visual receptor in the study area due to the geographical extent that it covers. The assessment, therefore, concentrates on 'Principal Visual Receptors' (PVRs) (see paragraph 15.4.14) from which a concentration of people may gain visibility of the Dublin Array offshore infrastructure. PVRs are represented by the 26 SLVIA viewpoints. The viewpoints and principal visual receptors are shown in Figures 3.15.7 and 3.15.8 and in conjunction with the ZTV in Figures 3.15.15a and 3.15.15b in the SLVIA GIS Figures Appendix.

15.7.67 The central and eastern parts of the study area are occupied by sea, while the western part is occupied by land. Visual receptors in the central and eastern parts are limited to people on ferries and other water-borne craft. The relatively low volume of people at sea, the absence of development and the transitory nature of the views, presents a notable contrast with the high volume of people on the land, the extent of development and the static and transitory nature of the views. On land, static views will be experienced by residents, as well as transitory views by road-users, cyclists and walkers. The location of the offshore infrastructure in the sea and at a minimum distance of approximately 9km from the coast, will prevent close range views being experienced by the majority of visual receptors in the study area, with the exception of people at sea.

15.7.68 The visual effects of the offshore infrastructure will be most notable along the coast, largely owing to the close visual association between the coast and the sea, the exposed nature of much of this eastern coastline, its orientation eastwards towards Dublin Array offshore infrastructure, and the sensitivity of residents, road-users, walkers and other visual receptors along this coastline and the views they experience. The permeation of visual effects into the coastal hinterland will typically be limited. This will be due to the reduced visual association between visual receptors and the sea, the enclosure formed by intervening built form, landform and tree cover, and the increasingly greater influence from the more immediate landscapes of the surrounding hinterland. Exceptions will occur where elevated and exposed landform ensures an association with the wider landscape and seascape, and in these instances, visual receptors will experience visibility of the Dublin Array offshore infrastructure.

General Visibility

15.7.69 The ZTVs in Figures 3.15.9b and 3.15.9c in the SLVIA GIS Figures Appendix show a concentration of visibility along the eastern coastal edge. This pattern can be explained by the location of the WTGs in the open sea and the openness of much of the coastal edge towards the seascape, where there are few intervening islands along the east coast to screen visibility from the mainland. While the coastline comprises headlands interspersed with sandy bays and shingle beaches, it is relatively open with few deep-set indentations. This means theoretical visibility is shown to be almost continuous along the length of the coast between Howth to the north and Wicklow Head to the south. These locations form the main markers between which visibility of the Dublin Array offshore infrastructure has greatest potential to be significant. While visibility is shown to extend intermittently to the north of Howth, the greater distance from the Dublin Array offshore infrastructure combined with the partial screening from intervening landform will reduce the potential for significant effects to arise. Similarly, visibility to the south of Wicklow Head will be largely screened by the intervening landform of the headland.

15.7.70 In terms of how far visibility extends inland, this is largely determined by the scale of the landform behind the coastal edge. In the north of the study area, where the landform is generally low-lying, visibility is shown to extend 40 to 50km inland in places, for example to the west and north-west of Dublin City. Despite the extent of theoretical visibility in these parts, the absence of elevated landform combined with the presence of Dublin City's urban development and enclosed farmland around the fringes, means that actual visibility from western and north-western parts of the study area would be mostly screened by intervening built development or tree cover.

15.7.71 In the south, where the Wicklow Mountains form the backdrop to the coastal edge, theoretical visibility extends as far as the landform allows. This means no further than the coastal foothills in parts and then further into the glens and across the higher tops in other parts. Although the coastal foothills prevent the wider spread of theoretical visibility, the elevated vantage they provide so close to the coast makes them highly susceptible to the effects of the Dublin Array offshore infrastructure. While actual visibility will be evident from many of the exposed upland areas, across the wider area actual visibility will be reduced by the extent of commercial forestry and other tree cover.

Viewpoint Selection

15.7.72 While the original viewpoints mostly represent visual receptors associated with the coastal edge, with a small number set inland, suggested additions are mostly located inland to ensure that sensitive landscapes, such as the Wicklow Mountains are more fully represented.

15.7.73 The Dún Laoghaire - Rathdown County Development Plan 2022-2028, Fingal Development Plan 2023-2029, South Dublin County Development Plan 2022-2028, Wicklow County Development Plan 2016-2022 and Dublin City Development Plan 2022-2028 all make reference to Views and Prospects, which are visually sensitive points, or a series of points, that require special protection. Dún Laoghaire - Rathdown County, Fingal County, South Dublin County and Wicklow County present these Views / Prospects as part of the Development Plan, while Dublin City has not identified specific Views / Prospects. Where the Views / Prospects occur on the coast, they are typically covered by the original viewpoints, owing to their relative proximity. Most of the other Views are located inland and owing to the enclosure of landform and built form, would not be notably affected by Dublin Array offshore infrastructure.

15.7.74 The distribution and extent of the representative viewpoints within the 50km study area are illustrated in Figure 3.15.7 and in conjunction with the ZTV in Figures 3.15.15a and 3.15.15b in the SLVIA GIS Figures Appendix. The text below presents the baseline condition and sensitivity of these viewpoints, all of which have potential to undergo significant effects, and sections 15.12, 15.13 and 15.15 present the detailed assessments of these viewpoints in respect of construction, operational and cumulative effects.

Viewpoint 1: Scenic View Car Park, Wicklow

15.7.75 This viewpoint is located at the car park at the junction between Greenhill Road and Ballyguile Mor. From here scenic views extend across the southern side of the town of Wicklow, where the landform rises steeply up from the coastal edge. This creates a natural vantage point from where views are drawn north along the east coast and north-east across the Irish Sea. The coastal plain north of Wicklow is low-lying and flat. The coastal edge is smoothly rounded, with a narrow band of sands and shingle backed by loughs and salt marshes. Towards Greystones and Bray, a rise in the coastal landform is evident and, albeit distant, the coastal hills create a sense of enclosure to the onshore waters. The urban development of Wicklow has a notable influence on the character of the view, with built form extending from the viewpoint down to the coastline and out towards Broad Lough. While most of the development appears to be small in scale and traditional in character, there are also some larger scale modern buildings, especially visible on the northern edge of the town. Further up the coast, there is a notable absence of development. Although there is no visible development in the Irish Sea, there is the periodic and transitory movement of ferries and other watercraft. No existing WTGs are visible in this view.

15.7.76 The **High** sensitivity is derived from the combination of the high value of the viewpoint and medium-high susceptibility of viewers. The high value relates to the fact that this is a formal viewpoint people visit with the specific intention of enjoying elevated views along the coast and across the sea. While the viewpoint is not covered by any landscape designations, much of the coastal area is covered by the county level Wicklow Coast AONB. The medium-high susceptibility of viewers relates to their heightened awareness of their surroundings and their appreciation of the open and expansive view, albeit not rated high owing to the presence of coastal development.

Viewpoint 2: Six Mile Point, Newcastle

15.7.77 This viewpoint is located on the long and narrow shingle beach, at the waymarked Six Mile Point, which follows the north to south alignment of the coast between Greystones and Wicklow. It is situated close to the access road that extends east towards the coast from Newcastle and which terminates at a small car park adjacent to the DART line and the railway cottage. The hinterland to this coast is low-lying and relatively flat, with a grass-covered airfield situated west of the viewpoint. Landform surrounding the coastal plain rises to low hills in all westerly and northerly directions, while in easterly directions the open expanse of the Irish Sea characterises the view. The distant outline of the Sugar Loaf Mountains can be seen to the north, along with the enclosing headland of Sorrento Point, while to the south, Wicklow Head forms some degree of containment to the seascape view. No existing WTGs are visible in this view.

15.7.78 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the viewpoint and medium-high susceptibility of viewers. The medium-high value relates to the location of the viewpoint in the county designated Wicklow Coast AONB. The medium-high susceptibility of recreational users on the beach relates to their heightened awareness of their surroundings and their appreciation of the open views along the coast and over the sea, albeit with the influence of coastal development readily visible including the adjacent train line.

Viewpoint 3: N11 road north of Ashford

15.7.79 This viewpoint is located at the southbound layby on the N11, with Ashford as the closest town at less than 1km to the south west. The N11 the national primary road connecting Dublin with Wexford in the south east. It is located at one of the few open and elevated sections of the N11, from which visibility extends eastwards towards the Irish Sea. The view is representative of the views of transitory south-bound road-users on the N11 and north-bound road-users stopping at the layby on this side of the road.

15.7.80 The view is characterised by the surrounding landscape, with the seascape appearing as a relatively distant and small-scale component owing to the screening effect of closer range landform and vegetation. The landscape has been modified by arable farming on either side of the N11 and by forestry in the uplands to the west. Undulating landform coupled with mature tree cover, serves to enclose much of the landscape around the N11 and create a largely introverted character. Despite the limited extent to which the seascape is visible, occasional views do, nonetheless, make a connection with the coast and potentially draw the attention of road-users. Evidence of built development is limited to settlement close to the coast, dispersed rural properties, an overhead transmission line to the west of the N11 and pole mounted wires to the east. No existing WTGs are visible in this view.

15.7.81 The **Medium** sensitivity is derived from the combination of the medium value of the viewpoint and medium susceptibility of viewers. The layby on the N11, is not a formal viewpoint and is not covered by any landscape designations which would otherwise denote a special scenic value. The medium susceptibility of road-users on the N11 relates to the fact that the vast majority will experience this view whilst travelling at speeds of up to 120km/h on this section of motorway. The transitory nature of these views will limit the awareness road-users experience of their surroundings. Furthermore, the open views to the coast from this section of the N11 will be more readily apparent to north-bound road-users than south-bound road-users and only over limited sections owing to the enclosure of close and middle range tree cover.

Viewpoint 4: Greystones Harbour

15.7.82 This viewpoint is located on the harbour wall which encloses the recently redeveloped Greystones Harbour. The view is representative of the views of visitors to the harbour, as well as local residents along the sea front. Greystones is an attractive seaside town that is popular with visitors. The view is characterised by the contrasts of the seascape to the east and the landscape to the west. The open and expansive seascape presents a simple and featureless outlook, comprising only sea and sky, albeit with the presence and activity from recreational watercraft across inshore waters and distant ferry and freight traffic. In contrast, the extent of urban development along the coastal edge presents a complex and varied scene of buildings, with the recent developments around the harbour especially notable owing to their larger scale, the sense of enclosure they create and the presence of the cranes, albeit temporary in nature. No existing WTGs are visible in this view.

15.7.83 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the viewpoint and medium-high susceptibility of viewers. Although the view is not taken from a formal viewpoint, the medium-high value of the view relates to the fact that the coastal aspect is the principal defining feature in the town of Greystones. This heightens the susceptibility of residents along the sea front, where the principal outlook is east across the sea. Walkers around the harbour and along the sea front, will be aware of their surroundings and be experiencing open views typically drawn seawards. The susceptibility is not rated high owing to the baseline influence of coastal development visible around this viewpoint. While the susceptibility of road-users in this area is moderated by the transitory and short-term nature of their views, their medium susceptibility, when combined with the medium-high value will also give rise to a **Medium-high** sensitivity.

Viewpoint 5: Sugar Loaf Mountain

15.7.84 This viewpoint is located at the summit of Sugar Loaf Mountain from where an expansive and panoramic view can be experienced. The viewpoint is representative of the views walkers experience on this hill. The car park is located on the southern side of the hill, with the path leading up the southern flank, such that views eastwards of the sea can be experienced by walkers during the ascent and descent, albeit at an oblique angle. Despite its modest height of 501 m AOD, Sugar Loaf Mountain forms an iconic landmark feature owing to its prominence at the north-eastern end of the Wicklow Mountains and the exposed quartzite stone across the upper slopes, which is likened to a dusting of sugar. There is visual interest in every sector of this panoramic view. To the north, the view extends across Dublin City and Howth Head. To the west, the rising landform of the Wicklow Mountains contains the wider extent of the view, with Djouce Mountain (725 m AOD) and War Hill (686 m AOD) forming the more prominent hill tops. To the south, the view extends along the Vartry valley, enclosed by low hills covered by either forestry or improved pasture. The N11 is also visible, carving a route through the hills and forests. To the east, the Irish Sea can be seen set beyond the eastern coastline. The coastal towns of Bray and Greystones are readily visible from the viewpoint, separated in the view by the upland landform of Little Sugar Loaf Mountain and Bray Head, while the remainder of the coastline is relatively flat and low-lying.

15.7.85 The **High** sensitivity is derived from the combination of the high value of the viewpoint and medium-high susceptibility of viewers. The high value relates to the hilltop presenting a natural viewpoint and also relates to the inclusion of this area in the county level Northern Hills AONB. The susceptibility of walkers is assessed as medium-high. This relates principally to the awareness walkers have of their surroundings and their intention to enjoy an elevated and expansive view. The susceptibility is not rated high owing to the existing influence from development, especially along the coast and in the lower-lying landscapes to the north.

Viewpoint 6: Bray Head walkway

15.7.86 This viewpoint is located on the coastal path which links Bray Head in the north with Greystones in the south. It is representative of the views of walkers on this coastal path will experience, which is popular and well-used by both locals and visitors to this area. At present the route is closed to the public for maintenance works, however for the purpose of this assessment it is assumed that the route will be open to the public during the operational phase of the offshore infrastructure. The coastal path wraps around the rocky headland, set along the middle slopes of Bray Head. It is elevated above the DART railway line, which is set between the path and the coastal edge. The enclosure from the rising hill side contains the westerly aspect of the view, such that the attention of walkers is drawn north or south along the path, or eastwards out to sea. The path is broad with a substantial stone wall on the eastern side. While the coastal hills and open seascape present an undeveloped character to this coastal edge, the presence of the train line and the town of Bray to the north, denote the extent to which human influences occur along this coastline. While there is no development out at sea, occasional recreational watercraft can be seen as transitory features and distant ferry and freight traffic.

15.7.87 The **High** sensitivity is derived from the combination of the high value of the viewpoint and medium-high susceptibility of viewers. The high value relates to the coastal walkway presenting natural viewpoints and also relates to the inclusion of this area in the county designated Bray Head SAAO. The medium-high susceptibility relates to the heightened awareness that walkers on the Bray Head Walkway will have of their surroundings and their appreciation of the open views along the coast and over the sea. Their susceptibility is prevented from being rated high owing to the presence of existing coastal developments, most notably the adjacent railway line.

Viewpoint 7: Bray Promenade

15.7.88 This viewpoint is located on the seafront promenade in the town of Bray. While the origins of the settlement dates back to Norman times, it was the arrival of the railway line in the 19th Century that saw the town develop as a popular seaside destination and attracting tourists. Bray is characterised by the broad extent of the promenade and associated gardens, which extend north and south along the coast, and the large Victorian Villas which form the enclosing seafront on the western aspect. The viewpoint is representative of the views of locals and visitors along the promenade and on the beach, road-users on the coast road and residents in seafront and elevated properties, where they enjoy the view looking out over the sea. The seascape is contained to the south by the pronounced and close-range landform of Bray Head, and to the north by the lower and more distant ridgeline from Killiney Hill to Sorrento Point and Dalkey Island. There is no visible development at sea, only transitory watercraft periodically crossing the inshore waters and distant ferry and freight traffic.

15.7.89 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the viewpoint and medium-high susceptibility of viewers. Although there are no formal viewpoints and the viewpoint is not covered by a scenic landscape designation, the Bray Promenade has been designed to mark the close association between coast and sea and the importance of the openness of the seafront to the identity of the town. The medium-high susceptibility of walkers, visitors and residents on the promenade reflects their heightened awareness of their surroundings and appreciation of the open views along the coast and towards the sea. Their susceptibility is not rated high owing to the presence of existing coastal developments in the town. While the susceptibility of road-users is moderated by the transitory and short-term nature of their views, their medium susceptibility, when combined with the medium-high value will also give rise to a **Medium-high** sensitivity.

Viewpoint 8: Hill at Carrick Gollogan, near Shankill

15.7.90 This viewpoint is located at the summit of the low hill at Carrick Gollogan, 276 m AOD. The hill sits approximately 3km south-west of Shankill, on the eastern edge of the low foothills, with the landform gradually rising westwards to form the northern mass of the Wicklow Mountains. In the 19th Century, lead and silver mines were excavated into this hill, with a smelting plant on the northern side, marked by the landmark feature of the remnant chimney. Today, the hill is largely planted with commercial forestry, with farmland to the north and across the lower hillsides. Paths for walkers and mountain bikers loop across the hill and the Dublin Mountains Way follows these paths to pass through the area. In contrast to the enclosed views experienced along the forest paths, from the summit with opens views to the north and north-east, as commercial forestry encloses the view to the south-east and south. The key features are Dublin city to the north, Dalkey, Killiney and Shankill to the north-east. The Irish Sea is seen as a largely featureless expanse, with the exception of the periodic ferries and other water-borne vessels passing in and out of the ports at Dún Laoghaire and Dublin. Views to the west are dominated by the upland backdrop of the Wicklow Mountains which are screened in this view by a shrubby hedgerow.

15.7.91 The **Medium-high** sensitivity is derived from the combination of the medium value of the viewpoint and medium-high susceptibility of viewers. The medium value of the viewpoint relates to the fact that it is not a formal viewpoint and is not covered by any scenic landscape designations which would otherwise denote a special value. The medium-high susceptibility of walkers relates to their heightened awareness of their surroundings, and although much of Carrick Gollogan Hill is enclosed by commercial forestry, where openings occur, wider views across the surrounding landscape and more distant seascape are appreciated.

Viewpoint 9: Shankill Beach

15.7.92 This viewpoint is located on Shankill Beach and is representative of beach goers and walkers on the beach and along the adjacent coastline. The coastline north of Bray and south of Shankill is the last largely undeveloped section before reaching the more continuously developed coastline. The area is occupied by Shanganagh Park and Cemetery, and Woodbrook golf course. While there is vehicular access to the recreational facilities (i.e. the aforementioned park and golf course), this is restricted and most of the coastline can only be accessed by pedestrians. The coastline comprises low cliffs and a shingle beach with open grasslands of the golf course and park set behind on the landward side. There is an open aspect across the sea, with the view framed by Sorrento Point to the north and Bray Head to the south. While some development is visible on Killiney Hill, from this viewpoint the coast appears largely undeveloped. Development at Shanganagh is typically small in scale and dispersed within a landscape setting, with the exception being the DART line which cuts a north-south route through the middle of this area.

15.7.93 The **Medium-high** sensitivity is derived from the combination of the medium value of the viewpoint and medium-high susceptibility of viewers. The viewpoint is not a formal viewpoint, and the area is not covered by any landscape designations which would otherwise denote a special scenic value but nonetheless is of local value. The medium-high susceptibility of beach goers, walkers on the beach and other recreational users of the park and golf course relates to the heightened awareness they typically have of their surroundings and the natural draw of views towards the seaboard aspect. The susceptibility of visual receptors is not rated high owing to the influence of development and recreational land uses located along the surrounding coastline.

Viewpoint 10: Killiney Hill Obelisk

15.7.94 This viewpoint is located on Killiney Hill, which along with Dalkey Hill and Sorrento Point, marks the southern extent of Dublin Bay. It is situated adjacent to the hilltop Obelisk and, at a height of 153 m AOD, presents panoramic views north-west over Dublin, south-west over the Wicklow Mountains and south along the coast. It is representative of walkers on the hill, which forms part of Killiney Hill Park, a Victorian park made public in 1887 and popular with both locals and visitors to the area. Whilst the park occupies the natural landform of Killiney Hill, human interventions such as the obelisk, paths and managed planting, denote its modified state. The view is also characterised by natural features, including Dalkey Island, Sorrento Point and the wider eastern coast, the open expanse of the Irish Sea, and the distant outline of the Wicklow Mountains. While development along the coastline is readily evident, it appears as a feature within the wider landscape and seascape setting.

15.7.95 The **High** sensitivity is derived from the combination of the high value of the viewpoint and medium-high susceptibility of viewers. The high value relates to the recognition of this location as a formal viewpoint which people visit with the express intention of enjoying the open outlook. The medium-high susceptibility of walkers relates to their heightened awareness of their surroundings and their appreciation of expansive views over the coast and sea. Their susceptibility is prevented from being rated high owing to the existing influence of development located along the coastline.

Viewpoint 11: Vico Road seating area

15.7.96 This viewpoint is located at the seating area on Vico Road, which traverses the middle slopes of the coastal hill side. It is representative of the views experienced by visitors to the seating area, road-users on Vico Road and residents in this area. Vico Road follows the south-west to north-east alignment of the coastal headland leading out to Sorrento Point, with views from the seating area extending in a perpendicular south-easterly direction across Killiney Bay. While the rising landform of Killiney and Dalkey Hills contains views to the north, to the south they open up across the seascape, extending as far south as the prominent coastal landform of Wicklow Head. This is the principal outlook from this viewpoint and is characterised by an undeveloped seascape. While this viewpoint is located in an urban area, the low density of the residential properties combined with the presence of the coastal hills and associated vegetation, moderates the urban influence. The principal orientation of many of the properties is south-east towards the sea and the elevated position of properties on Vico Road enhance the open view. The popularity of this seating area relates to the scarcity of open space along this route, with most of the road enclosed by high walls, villas and mature vegetation.

15.7.97 The **High** sensitivity is derived from the combination of the high value of the viewpoint and medium-high susceptibility of viewers. The high value relates to the recognition of this location as a formal viewpoint which people visit with the express intention of enjoying the open outlook. The medium-high susceptibility of residents and visitors relates to their heightened awareness of their surroundings and their appreciation of expansive views over the coast and sea. Their susceptibility is prevented from being rated high owing to the existing influence of development along the coastline. While the susceptibility of road-users is moderated by the transitory and short-term nature of their views, their medium susceptibility, when combined with the high value, gives rise to a **Medium-high** sensitivity.

Viewpoint 12: Coliemore Harbour seating area

15.7.98 This viewpoint is located at the seating area adjacent to Coliemore Harbour. The view is representative of the views of residents along the seafront, as well as walkers and road-users on the coast road and in and around the harbour. Coliemore Harbour forms part of the developed coastline, set to the south-east of Dún Laoghaire and north-west of Sorrento Point, and on the northern edge of the urban area of Dalkey. The orientation of this coastline means that views are drawn in a perpendicular north-easterly direction, with the enclosure of built form containing the extents to the north-west and to the south-east. The view focuses on Dalkey Island with its Martello Tower set on the high point, while to the north, the distant outline of Howth Head defines the extent of Dublin Bay. The harbour is an old traditional harbour built with natural stone walls. It is set below the modern seating area, which has been carefully designed in response to the sensitivity of the location. The surrounding architecture comprises mostly large Victorian villas with an attractive prospect across the open sea. There is also more modern infill development, designed to be largely respectful of the relatively small scale and traditional character of this area. While watercraft are visible on the sea, there is no permanent development visible.

15.7.99 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the viewpoint and medium-high susceptibility of viewers. Although the viewpoint is not a formal viewpoint, its location adjacent to this historic harbour adds to its value, as it presents a local attraction and an open outlook seawards. The susceptibility of residents and walkers on the seafront is medium-high. Many of the properties are orientated seawards and residents experience an open outlook for potentially longer periods of time, although urban development is a baseline influence in these views which moderates the overall susceptibility. While the views of walkers are shorter in duration, their exposure to the coast means they also have a heightened awareness of the surroundings. The susceptibility and sensitivity of road-users will be **Medium** as their views are more transitory with often the focus remaining on the urban streets they are navigating.

Viewpoint 13: Dún Laoghaire Harbour East Pier

15.7.100 This viewpoint is located on the East Pier at Dún Laoghaire Harbour and is representative of the views of walkers and road-users in this coastal area, residents in seafront properties and passengers on the ferries. Views are naturally drawn seawards and framed by Howth Head to the north and Forty Foot promontory in Sandycove to the south. Urban development along the seafront contains views to the west and prevents visibility north-west into Dublin City. While there is no permanent development visible out at sea, the presence of the ferry terminal and harbour means that there is periodic and transitory movement of ferries and other watercraft. Coastal developments comprise a mix of traditional Victorian terraces and larger scale modern infill. Activity associated with the harbour and the town creates a busy atmosphere, with busy roads and walkways. There is also a more urban character compared to the coastal settlements to the south, with the engineered piers and harbour setting a larger scale appearance.

15.7.101 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the viewpoint and medium-high susceptibility of viewers. Although the viewpoint is not a formal viewpoint, its location adjacent to the east pier adds to its value, as it presents a local attraction and an open outlook seawards. The susceptibility of residents and walkers on the seafront and ferry passengers in onshore waters is medium-high owing to the baseline influence of coastal development. Many of the properties are orientated seawards and residents experience an open outlook for potentially longer periods of time, although with an influence from existing coastal development in these views. Ferry passengers when looking out of portholes or from the deck will be appreciating the sea views. While the views of walkers are shorter in duration, their exposure to the coast means they also have a heightened awareness of the surroundings. The susceptibility and sensitivity of road-users will be **Medium** as their views are more transitory with often the focus remaining on the urban streets they are navigating.

Viewpoint 14: R131 near Martello Tower, Sandymount, Dublin

15.7.102 This viewpoint is located on the promenade at Sandymount Strand and is representative of the views of walkers and road-users along this coastal route, bathers in the sea and residents in adjacent seafront properties. The promenade creates a long and narrow linear park which connects with the open space of the beach and the sea. The seafront terraces and villas are separated from the promenade by gardens and garden vegetation, as well as the busy R131 coast road and associated parking. For road-users, their views towards the sea are also interrupted by the parked cars on the seaward side, while pedestrians and cyclists on the promenade experience open and largely uninterrupted views. The natural draw of the view is east towards the sea, with Dublin Bay framed by Howth Head to the north and Dún Laoghaire and its harbour to the south. Beyond the low rocky sea defence and the broad shallow beach to the north, the key focus is Dublin Port owing to the large scale, light and bright coloured materials, and tall structures of the energy developments in this location. Despite their distance from the viewpoint of approximately 1.5 to 2km, their large scale compared to the small scale of this residential area, is apparent. While there are no developments visible out at sea, a disused concrete platform is visible close to shore.

15.7.103 The **Medium-high** sensitivity is derived from the combination of the medium value of the viewpoint and medium-high susceptibility of viewers. The viewpoint is not a formal viewpoint, although it is representative of the views experienced along this open seafront. Its value is moderated by the presence and influence of the larger scale developments located at Dublin Port. The susceptibility of residents and walkers on the seafront is medium-high. Many of the properties are orientated seawards and residents experience an open outlook for potentially longer periods of time, although with an influence from existing coastal development in these views. While the views of walkers are shorter in duration, their exposure to the coast means they also have a heightened awareness of the surroundings. The susceptibility and sensitivity of road-users will be **Medium** as their views are more transitory with often the focus remaining on the urban streets they are navigating.

Viewpoint 15: Promenade near Clontarf village

15.7.104 This viewpoint is located on the promenade at Clontarf close to 'The Baths' restaurant and bar and is representative of the views of walkers and road-users travelling along this coast, as well as residents in seafront properties. Clontarf is located on the northern side of Dublin Port and to the east of North Bull Island. It has a southerly aspect across the water with the focus being on the large-scale energy developments which occupy breakwaters either side of the port, but from this viewpoint appear as a mass of large-scale energy development and port infrastructure. The Great South Wall extends out into the sea ending at the red painted Poolbeg Lighthouse, with the view east-southeast looking across the open sea. The outline of the distant Wicklow Mountains can be seen in the background beyond Dublin Port. The promenade is set within a substantial band of open space, and the presence of mature trees creates more of a parkland appearance. The depth of this space, however, means that the seafront properties are well recessed from the shoreline and separated by the busy R105 main coastal road that connects Howth and the city centre. The low density of the predominantly 20th century properties along this strip presents a suburban character with a sense of openness and space.

15.7.105 The **Medium-high** sensitivity is derived from the combination of the medium value of the viewpoint and medium-high susceptibility of viewers. The viewpoint is not a formal viewpoint, although it is representative of the views experienced along this open seafront. Its value is moderated by the presence and influence of the larger scale developments located at Dublin Port. The susceptibility of residents and walkers on the seafront is medium-high. Many of the properties are orientated seawards and residents experience an open outlook for potentially longer periods of time, although with an influence from existing coastal development in these views. While the views of walkers are shorter in duration, their exposure to the coast means they also have a heightened awareness of their surroundings. The susceptibility and sensitivity of road-users will be **Medium** as their views are more transitory with often the focus remaining on the urban streets they are navigating.

Viewpoint 16: Near the Bull Wall, North Bull Island

15.7.106 This viewpoint is located on North Bull Wall, on the southern side of the island, and is representative of the views of walkers and road-users on the island. North Bull Island is a human intervention, although it continues to grow naturally. North Bull Wall was completed in 1825, and it was behind this wall that silt from the River Liffey collected to form an island, which is presently 5km in length and 800 m wide. It is colonised by grasses and inhabited by birds and has been designated as a national Nature Reserve. The island is a popular destination for both locals and visitors, as it offers a range of recreational pursuits from walking, running, cycling, sea-swimming and playing golf to spending time on the beach or enjoying food and drinks at the café. Cars cross from the R105 over the bridge and onto the island and parking is provided, albeit often very busy. The view looks south-east along the extent of Bull Wall to the lighthouse at the end of the promontory. The open horizon of the Irish Sea is framed by Howth Head to the north-east, and the Dalkey headland and Dalkey Island to the south-east. To the east the broad sandy beach stretches out towards the Irish Sea, while to the west Dublin Port is characterised by its large-scale energy developments and tall chimneys which break the skyline of the distant Wicklow Mountains.

15.7.107 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the viewpoint and medium-high susceptibility of viewers. Although the viewpoint is not a formal viewpoint and North Bull Island is not covered by any scenic landscape designations, its location on this largely undeveloped island adds to its value, as it presents a local attraction and an open outlook seaward. The medium-high susceptibility of walkers relates to their heightened awareness of their surroundings and appreciation of open views across the island and sea. Their susceptibility is not rated high owing to the baseline influence of visible coastal development including large scale developments at Dublin Port.

Viewpoint 17: R105, Sutton

15.7.108 This viewpoint is located on the promenade at Sutton, adjacent to the R105 and east of the junction with Baldoyle Road (R809). It is representative of the views of walkers, cyclists and road-users travelling along this coast, as well as residents in seafront properties. The promenade serves as a travel route rather an open space, owing to the narrow confines of the path. There is, however, a sense of connection, owing to the location of the path immediately adjacent to the shoreline, and a sense of space relating to the openness of the seascape. Travelling east-bound, Howth Head forms the focus on account of its pronounced landform and projection out into the sea. The eastern extent of North Bull Island stretches out to overlap to the fore of Howth Head, such that there is no visibility of the seascape horizon. More distant features include the outline of the Wicklow Mountains to the south-west and the energy developments at Dublin Port visible to the fore. Sutton seafront comprises large Victorian villas with a seaboard aspect, although the busy R105 and the absence of open space detracts from the quality of the environment. While the low intervening wall may partly screen the open views of road-users, it provides some separation for walkers and cyclists from the main road.

15.7.109 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the viewpoint and medium-high susceptibility of viewers. Although the viewpoint is not a formal viewpoint, it is located in the Coast Highly Sensitive Landscape Area (Fingal) which denotes its county level value. The medium-high susceptibility of walkers and cyclists along the seafront relates to their heightened awareness of their surroundings and appreciation of open views across the sea. Residents along the seafront are also of a medium-high susceptibility owing to the orientation of their properties towards the sea and the longer-term nature of their views, although with an influence from existing coastal development in these views. The susceptibility and sensitivity of road-users will be **Medium** as their views are more transitory with often the focus remaining on the urban streets they are navigating.

Viewpoint 18: Howth Head Scenic Viewpoint

15.7.110 This viewpoint is located at the Howth Head Scenic Viewpoint, at the Summit car park, which is situated in the south-east of the peninsula, at an elevated point overlooking the sea. There is a series of looped trails around Howth Head, many of which incorporate the cliff walk on the eastern and south-eastern side of the peninsula. The Summit car park forms the view to the west and north. The steep fall of the landform to the east and south, allows views to expand across the vast openness of the Irish Sea, seen beyond evergreen boundary vegetation surrounding a property to the southeast, visible as a roof and gable end chimney. To the south, the vegetation covering the hillside leading down to the cliffs form close range features, while the distant outline of the Wicklow Mountains forms a distant backdrop. Dublin City is screened from the viewpoint by the intervening upland landform; however, the tall chimneys of Dublin Port mark its location. The cliff path appears to be popular with both locals and visitors, and the openness of the seascape and sky presents a simple and tranquil character to the views.

15.7.111 The **High** sensitivity is derived from the combination of the high value of the viewpoint and medium-high susceptibility of viewers. The viewpoint is located at the Summit car park which provides access to the cliff walks and presents views facing out towards the sea. It is located within the Coast Highly Sensitive Landscape Area (Fingal) which denotes its county level value, and the eastern and southern parts of Howth are covered by a Special Amenity Area Order which denote the county level importance of this landscape. Furthermore, the viewpoint is recognised as a formal scenic viewpoint, such that it is a location people will visit with the express intention of enjoying the view. Walkers on the cliff path will have a heightened awareness of their surroundings and although human development is evident across most of the peninsula, it is largely screened from the eastern and south-eastern parts.

Viewpoint 19: Car park near Martello Tower, Portrane

15.7.112 This viewpoint is taken from the coastal car park, adjacent to the historic Martello Tower in Portrane. It is representative of walkers in this area, as well as road-users on the minor road and residents in nearby coastal properties. Portrane is a small coastal village to the north of Portmarnock and Howth Head. Its main attraction is the long sandy beach along the coast to the north of the settlement. The viewpoint is located on the southern side of the low and rocky coastal headland, from where there are open views to the south. From the car park, a path follows the coast south to Donabate Beach. The focus of views seaward is Lambay Island, which is the closest and most prominent offshore landmark. To the south, the Portmarnock peninsula is seen to extend south from the town, with Howth Head set to the east and the even more distant outline of the Wicklow Mountains set beyond. Development in this area is typically small in scale and mostly residential. While there are no large-scale developments readily visible either on land or at sea, passing ferries can be seen on the distant horizon.

15.7.113 The **Medium-high** or **Medium** sensitivity is derived from the combination of the medium-high value of the viewpoint and medium-high or medium susceptibility of viewers. Although the viewpoint is not a formal viewpoint, it is located within the Coast Highly Sensitive Landscape Area (Fingal) which denotes its county level value. The viewpoint is representative of walkers along this coast, whose susceptibility will be medium- high in respect of the awareness that they have of their surroundings and their exposure to the seaboard views, albeit with an existing influence from coastal development in these views. The susceptibility of residents will be medium as their views are typically not orientated south towards the array area but instead east across the sea. The susceptibility of road-users will be medium as the road does not continue along this coastal edge.

Viewpoint 20: Entrance to new housing estate, Rush

15.7.114 This viewpoint is located on the south-eastern side of the town of Rush, on the southern side of small peninsula, and to the north of Portrane. It is located approximately 26.4km north-northeast of the array area. This viewpoint has been selected to represent the views of residents in this coastal town, although it is only from the southern edge of the town that open views southwards are experienced. Tayleurs Point is a recent residential development situated on the headland to the northeast of sandy South Beach and Rush Golf Course. The road on which the viewpoint is located, namely Tower Street, runs east-north-east /west-south-west and faces out towards the sea to the south-southeast. Views towards the north are of the modern residential developments. The view south is of agriculture fields that slope down towards the coastal edge whose boundary planting along the shore and between fields obscures both the rocky shore itself, and views east-northeast along the coast. The headland of Howth Head is visible along the distant southern horizon. The main focus is Lambay Island which is set out in the Irish Sea at approximately 4km to the south-east, with the more distant Howth Head set at approximately 14km. The openness of the farmland that lies adjacent to the coastal edge, ensures an open view, albeit from an elevation close to sea level.

- 15.7.115 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the viewpoint and medium-high susceptibility of viewers. Although the viewpoint is not a formal viewpoint, it is located within the Coast Highly Sensitive Landscape Area (Fingal) which denotes its county level value. While typically residents are attributed a medium-high or high susceptibility, in this instance, the very distant location of the Dublin Array offshore infrastructure from the viewpoint limits the susceptibility of residents, despite their outlook being in this southerly direction.

Viewpoint 21: Dublin to Holyhead Ferry

- 15.7.116 This viewpoint is taken from the Dublin to Holyhead ferry at a point in the Irish Sea approximately 7km south-east of Howth Head. The view is representative of the views of ferry passengers as well as passengers on other watercraft in these inshore waters. Ferries cross the Irish Sea linking Dublin with Holyhead, Liverpool, and Cherbourg, France, these crossings taking between 3 and 18 hours. In the summer months, a ferry also runs to the Isle of Man. On approaching Dublin, the key landscape features are Howth Head to the north and the Wicklow Mountains to the south. Dublin is marked by the tall chimneys situated at the port and the tall city centre buildings set behind. Development can be seen around Dublin Bay and stretching along the east coast to the south, albeit more intermittently. While the operational WTGs at Arklow Bank Phase 1 are visible from further offshore, from this viewpoint, the intervening landform of Wicklow Head screens them. While there is no permanent development out at sea, Poolbeg Pier stretches out to just under 2km from the port, with the end marked by a lighthouse, adjacent to the North Bull Lighthouse beyond Bull Wall to the north. There is also periodic water-borne traffic passing in and out of Dublin Port.
- 15.7.117 The **Medium-high** sensitivity is derived from the combination of the medium value of the viewpoint and high susceptibility of viewers. The medium value relates to the fact that the ferry route is not covered by any scenic viewpoints or seascape designations, which would otherwise denote a special value. The high susceptibility of passengers, as well as crew on water-borne vessels, relates to the heightened awareness these people have of their surroundings and the enjoyment of expansive seascape views they will experience.

Viewpoint 22: Tonelagee

15.7.118 This viewpoint is located on the summit of Tonelagee (817 m AOD) and has been selected to represent the views of walkers in this southern part of the Wicklow Mountains. While there are a number of routes to the summit, the most popular is from Wicklow Gap to the south. This is a scenic viewpoint on the R756 between Laragh and Dunlavin, where there is parking and from which walkers get a 450 m elevation advantage. The hill is generally smooth and rounded with a steeper face on the north-east dropping down to Lough Ouler. The view from the summit is panoramic and characterised by the surrounding upland landscapes. The key feature is the lough to the north-east and this typically draws the attention of walkers in this direction. The roads and rural settlements are not readily visible owing to their location in the enclosed glens and, therefore, the main human influence comes from the extent of commercial forestry which is evident across the hills to the west and north, although Tonelagee itself is covered in open moorland. Although the east coast is 22km to the east, the gradual fall in landform means that it is visible from the summit, albeit seen as a distant background feature.

15.7.119 The **Medium-high** sensitivity is derived from the combination of the high value of the viewpoint and medium-high susceptibility of viewers. The viewpoint is located in the Wicklow Mountains AONB and in the Wicklow Mountains National Park. The AONB denotes a county level scenic value and the national park a national level scenic value, and therefore, the area is assessed to be high in terms of value. The susceptibility of walkers is assessed as medium-high. This relates principally to their awareness of their surroundings and their intention to enjoy an elevated and expansive view. The susceptibility is prevented from being rated high owing to the influence from commercial forestry, the separation of this upland area from the coast, and the stronger influence from the surrounding hills than the distant seascape.

Viewpoint 23: Djouce Mountain

15.7.120 This viewpoint is located on the summit of Djouce Mountain in the north-east part of the Wicklow Mountains. It is representative of the views of hill walkers in this area. Access onto Djouce Mountain is provided by the Wicklow Way with parking provision located on the eastern side of Lough Tay to the south-west of the hill. Beyond the initial track through forestry, a raised timber walkway provides access to just below the summit, thus making the hill readily accessible to a wide range of hill walkers. The view from the top is panoramic and expansive. It presents the contrast between the largely undeveloped and unmodified upland landscape to the west and the developed and modified landscape to the east. The Wicklow Mountains extend from the north-east round to the south and are characterised by the gently undulating ridgelines and moorland landcover, albeit with forestry across the lower hills. While forestry blocks extend into the lower hills towards the coast, it is fields of pasture and occasional arable which characterise the cultivated landscape. Development is typically small in scale and dispersed, with larger settlements seen to concentrate along the east coast. Dublin Port is visible to the north-east, with the light colour of the energy developments standing out. Great Sugar Loaf Mountain and Bray Head can be seen to the east, forming landmark features amidst an otherwise relatively low-lying coastal edge.

15.7.121 The **Medium-high** sensitivity is derived from the combination of the high value of the viewpoint and medium-high susceptibility of viewers. The viewpoint is located in the Wicklow Mountains AONB and in the Wicklow Mountains National Park. The AONB denotes a county level scenic value and the national park a country level scenic value, and the area is assessed to be high in terms of value. The susceptibility of walkers is assessed as medium-high. This relates principally to their awareness of their surroundings and their intention to enjoy an elevated and expansive view. The susceptibility is prevented from being rated high owing to the separation of this upland area from the coast and the stronger influence from the surrounding hills than the seascape where the Dublin Array offshore infrastructure will be located.

Viewpoint 24: Forty Foot bathing area

15.7.122 This viewpoint is located on Sandycove Point, set on the road above the iconic Forty Foot bathing area, which swimmers frequent all year round. The rocky headland encloses a small cove, into which steps enable swimmers to access the water. This headland forms the southern extent of Dublin Bay and with its orientation to the north, directs views towards the Howth Head headland. The high walls of the historic fort adjacent to the Forty Foot bathing area obscures views of the main part of Dún Laoghaire harbour, however the eastern pier of the harbour including lighthouse are visible jutting out into the bay. In the distance, the developed coastline of Dublin Bay forms the horizon leading to Howth Head. Wider views extend out east across the Irish Sea and south down the coast to Sorrento Point and Dalkey Island. Views inland are contained by the residential development of Dalkey.

15.7.123 The view is representative of the views of swimmers, as well as residents along this section of seafront, and walkers and road-users on the coast road. The surrounding architecture comprises mostly Victorian villas with an attractive prospect across the open sea. There is also more modern infill development, although mostly respectful of the relatively small scale and traditional character of this area. While watercraft are visible on the sea, there is no permanent development visible.

15.7.124 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the viewpoint and medium-high susceptibility of viewers. Although the viewpoint is not a formal viewpoint, its location adjacent to this historic bathing area adds to its value, as it presents a national attraction and an open outlook seaward. The susceptibility of swimmers, residents and walkers on the seafront is medium-high. Many of the properties are orientated seawards and residents experience an open outlook for potentially longer periods of time, although there is an existing influence from coastal development in these views. While the views of walkers are shorter in duration, their exposure to the coast means they also have a heightened awareness of the surroundings. The susceptibility and sensitivity of road-users will be **Medium** as their views are more transitory with often the focus remaining on the urban streets they are navigating.

Viewpoint 25: Ballyedmonduff Road

15.7.125 This viewpoint is located on Ballyedmonduff Road which lies to the south of Dublin City and the M50. The viewpoint is located on a rural section of road between the villages of Ballyedmonduff to the north and Glencullen to the south. It follows a north-south direction to traverse the lower eastern flank of Fairy Castle (536 m AOD) which lies to the west. While much of the road is enclosed by landform, tree cover or rural properties, there are some short open sections which allow views to open up towards the east, where the array area is located. In the section where the viewpoint is located, there is a cluster of rural properties set on the higher ground to the west of the Ballyedmonduff Road and from which open views occur. This viewpoint is representative of the views of the residents in these properties, as well as road-users on the road. The view extends over the rural farmland to the coastal edge marked by Dalkey Hill in the north and Bray Hill in the south, with the Irish Sea seen to extend beyond. Urban development is also visible with the southern side of Dublin City visible to the north and coastal towns visible to the east.

15.7.126 The **Medium-high** sensitivity is derived from the combination of the medium value of the viewpoint and medium-high susceptibility of residents and medium susceptibility of road-users. The viewpoint and is not covered by a scenic landscape designation, either of which would have otherwise raised its sensitivity. The susceptibility of residents in these properties is medium-high as they are orientated seaward and residents experience an open outlook for potentially longer periods of time, although with an existing influence from onshore development in these views. In contrast, the views of road-users are shorter in duration and their views are more transitory and typically channelled either north or south by the alignment of the road, rather than east towards the array area. The susceptibility and sensitivity of road-users is **Medium**.

Viewpoint 26: Poolbeg Pier

15.7.127 This viewpoint is located on the Great South Wall that forms Poolbeg Pier, the southern breakwater of Dublin Port which extends a total of 3km into Dublin Bay. The viewpoint is located a third of the way along such that on three sides the view is across wide expanses of water. the view east is along the pier and out across the Irish Sea framed by Howth Head to the northeast and Dalkey headland and Dalkey Island to the southeast. The southern conurbation of Dublin lines the bay in views south and southwest with the Wicklow Mountains forming the skyline. The view west is back towards Dublin Port with its energy and port infrastructure including several tall chimneys. The view northeast is towards North Bull Island and Sutton, with the Statue of Our Lady, Star of the Sea forming a notable landmark. While there are no developments visible out at sea, watercraft including ferries, freight vessels and sailing boats are common features. The pier is popular with walkers and there is a swimming and water polo club located halfway along the pier.

15.7.128 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the viewpoint and medium-high susceptibility of viewers. Although the viewpoint is not a formal viewpoint and Poolbeg Pier is not covered by any scenic landscape designations, it is a local attraction and has an open outlook seaward. The medium-high susceptibility of walkers and swimmers relates to their heightened awareness of their surroundings and appreciation of open views across the island and sea. The susceptibility is prevented from being rated high owing to the influence from surrounding development, especially at Dublin Port.

Principal Visual Receptors

15.7.129 In addition to the representative viewpoints, this assessment also considers the potential effects on the wider principal visual receptors. This is to ensure that the full extents of potential significant effects are being assessed. Those principal visual receptors with potential to be significantly affected, largely comprise settlements along the eastern coast between Howth and Wicklow. This is largely owing to the openness of the coast and the seaboard aspect of the settlements. The DART Rail Line, N11 and the coastal road between Bray and Rathnew (R761) are also included in the detailed assessment, along with the long-distance Wicklow Way walking route, Bray to Greystones cliff walk and Howth Head loop.

15.7.130 The distribution and extent of the PVRs within the 50km study area are illustrated in Figure 3.15.8 and in conjunction with the ZTVs in Figures 3.15.15a and 3.15.15b in the SLVIA GIS Figures Appendix. The text below, presents the baseline condition and sensitivity of those PVRs that have potential to undergo significant effects and sections 15.12, 15.13 and 15.15 present the detailed assessments of these PVRs. Note that the sensitivity ratings for PVRs can differ from the sensitivity ratings for the associated viewpoint, as the PVRs are representing a much wider extent and, therefore, variable values and susceptibilities associated with a range of visual receptors.

PVR 1: DART / Irish Rail Southeastern Commuter Train

15.7.131 A number of viewpoints are located in close proximity to the Dublin Area Rapid Transport (DART) system such that they represent views from the DART or views from the surrounding area. These include:

- ▲ Viewpoint 2 Six Mile Point, Newcastle – viewpoint is located adjacent to the train tracks.
- ▲ Viewpoint 4: Greystones Harbour – viewpoint is located at the harbour, and although the railway line runs through the urban development which blocks views towards the coast, it sits close to the coast on either side of the town. As such the viewpoint is indicative of the views from the wider coastal sections.
- ▲ Viewpoint 6: Bray Head walkway – viewpoint is located on the walkway elevated above the DART railway line, which is set between the path and the coastal edge.

- ▲ Viewpoint 11: Vico Road seating area – viewpoint is located at a seating area that sits on elevated ground above the railway line that runs lower down the steep headland along the coast. The higher elevation of the viewpoint comparative to the railway line results in a fuller view towards the array area than would be seen from railway carriages.
- ▲ Between Viewpoint 13: Dún Laoghaire Harbour and Viewpoint 14: R131 near Martello Tower, Sandymount, the railway line hugs the coast for a stretch before turning inland and into urban development which blocks views seaward. As these two viewpoints are located to the south and north of this stretch respectively, and are located on the coastal edge, they provide an indication of likely views towards the array area.

15.7.132 The DART system is an electrified train network connecting Dublin and the surrounding coastal towns. It extends from Malahide or Howth in the north, to Greystones in the south. The sections of the line connecting Malahide and Howth with Dublin City are inset from the coastal edge, such that surrounding urban development contains the extent of views. Between Sydney Parade and Dún Laoghaire, the train line emerges from the surrounding city to occupy a position very close to the coastal edge, such that views across Dublin Bay open up. Between Dalkey and Glasthule, the train line is routed through the urban area and reemerges on the coast at Sorrento Point, from where it follows the coast of Killiney Bay, offering intermittent seaward views, where buildings and cuttings do not intervene.

15.7.133 Through Shankill, the route is contained by urban development, while through Shanganagh it is set within open space, albeit inset from the coastal edge. While within the towns of Bray and Greystones, the train line is largely screened from the coast by intervening urban development, open views occur around Bray Head where the line sits especially close to the coastal edge, before entering a tunnel on the approach into Greystones. The DART system finishes at Greystones; however, the Southeastern Commuter Train continues to Wexford and Rosslare Europort, which are located approximately 100km south of Dublin and outside the study area. Between Greystones and Wicklow, the train line sits close to the low-lying and exposed coastline with open views occurring along much of this section. After Wicklow station the railway line heads west away from the coast. When in full operation, DART carries approximately 20 million passengers a year, according to the DART Expansion – National Development Plan (2018–2027).

15.7.134 The sensitivity of passengers on the DART / Irish Rail east coastline varies depending on the different contextual influences experienced along its length. In those sections contained by urban development, the **Medium** sensitivity is derived from a combination of the medium value of the views and the medium susceptibility of viewers. In those sections set along the coastline, the **Medium-high** sensitivity is derived from the combination of the medium-high value of the views and medium-high susceptibility of passengers. This variation reflects the increase in visual amenity experienced along the coastal sections.

PVR2: N11

15.7.135 This PVR is represented by viewpoint 3 located on the N11 near Kilmullin.

15.7.136 The N11 is a national primary road covering 129km to connect Dublin in the north with Wexford in the south. While the N11 is routed down the eastern side of the country it is well inset from the coastal edge, such that it lies to the west of the coastal towns of Bray, Greystones and Wicklow. The N11 starts at Mount Merrion on the southern part of Dublin, where it forms a continuation of the R138, which extends south from the city centre. The northern section of the N11 is contained by the urban development of the southern districts of Dublin and at Shankill it merges with the M50 city bypass. Having skirted around the western side of Bray and the eastern side of Kilmacanoge, the N11 enters into a more rural undulating landscape characterised by a mix of farming and forestry, with tree cover and landform often keeping views contained, for example in the section through the Glen of the Downs. The location of the N11, inset typically 4 to 5km from the coastal edge, combined with the enclosure of tree cover and landform, means that road-users experience only brief views of the coast from the more elevated and exposed sections.

15.7.137 The sensitivity of road-users on the N11 varies depending on the different contextual influences experienced along its length. In those sections contained by urban development, landform or tree cover, the **Medium-low** sensitivity is derived from a combination of the medium value of the views and the medium-low susceptibility of road-users. In those sections set in the more open and exposed landscapes, the **Medium** sensitivity is derived from the combination of the medium value of the views and medium susceptibility of road-users. This variation reflects the increase in the susceptibility of road-users where their views open up to enable an appreciation of the surrounding landscape and wider seascape. There are no formal viewpoints along the N11 and the majority of the route is not covered by any scenic landscape designations.

PVR 3: Bray to Rathnew coastal road (R761)

15.7.138 The R761 is the coastal road which connects the east coast towns of Bray and Rathnew, via Greystones, Kilcoole and Newcastle. Although this road provides access to the eastern coast, it is typically inset between 1.5 and 2km from the coastal edge. Where the road passes through the settlements, views are largely contained by urban development. While more open aspects occur across the surrounding farmland in the rural sections, the low-lying landform combined with the extent of hedgerows and mature tree cover within this coastal plain often prevents visibility from extending to the coastal edge. Between Rathnew and Newcastle, there is very little visibility of the sea, and it is only north of Newcastle, where the R761 traverses the slightly elevated landform of Leabeg that views of the sea open up. Urban development becomes much more extensive in the northern part of this route with views contained by the settlements of Bray, Greystones and Delgany. While Bray Head screens visibility of the sea between Bray and Windgate, to the south of this section, the elevated landform and open seaboard aspect, ensures south-bound road-users experience clear views towards the array area.

15.7.139 The sensitivity of road-users on the R761 varies depending on the different contextual influences experienced along its length. In those sections contained by urban development, landform or tree cover, the **Medium** sensitivity is derived from a combination of the medium value of the views and the medium susceptibility of road-users. In those more elevated and exposed sections, the **Medium-high** sensitivity is derived from the combination of the medium value of the views and medium-high susceptibility of road-users. This variation reflects the increase in the susceptibility of road-users where their views open up to enable an appreciation of the surrounding landscape and wider seascape. There are no formal viewpoints along the R761, and the majority of the route is not covered by any scenic landscape designations.

PVR 4: Bray to Greystones Cliff Walk

15.7.140 Viewpoint 6 Bray Head Walkway is located on the Bray to Greystones Cliff Walk and is representative of this PVR.

15.7.141 The Bray to Greystones coastal path connects the centres of these two towns via a 7km coastal walking route. The route can be divided into two distinct characters; the northern part is characterised by the steep and pronounced landform of Bray Head which forms a promontory relative to the shallow bays on either side. From Bray, the path climbs steeply up onto the lower to middle slopes of the hill, from where it traverses around the headland, with open and expansive views drawn out to the sea. The route follows a man-made path with a low stone wall on the seaward aspect and the DART line set into the lower slopes below. In the southern section, the coastline changes from a convex to concave profile, with the path set above the low cliffs and shingle beach that lies to the south of Bray Head.

15.7.142 The **Medium-high** sensitivity is derived from the combination of the high value of the route and medium-high susceptibility of walkers. The high value relates to the location of the coast in the county designated Wicklow Coastal AONB and Bray Head Special Amenity Area Order. The medium-high susceptibility relates to the heightened awareness that walkers on the Bray Head Walkway will have of their surroundings and their appreciation of the open views along the coast and over the sea. Their susceptibility is prevented from being rated high owing to the presence of existing coastal developments, most notably the adjacent railway line and the towns of Bray and Greystone.

PVR 5: Howth Head Loop

15.7.143 Viewpoint 18 is located at the Summit car park and is representative of views from eastern and southern walking routes with open views out across the Irish Sea.

15.7.144 On Howth Head there are a series of looped walking routes, all of which are a variation on a theme. They all start at the DART station in the village of Howth and the routes of most relevance to this assessment incorporate the paths along the eastern and southern coasts of the peninsula, and over the eastern or southern slopes of Ben of Howth. From the DART station, the path follows the northern coast from where views extend north to Ireland's Eye. Rounding Nose of Howth, views open up even more across the Irish Sea and as the route passes southwards along the cliff-tops the array area is readily visible. The route then descends towards the lower-lying and more developed southern coast, wrapping around Doldrum Bay and then hugging the rocky shoreline that is orientated south-west back across Dublin Bay. While the path cuts behind the Ben of Howth, such that seaward views become more obscured, it does also loop onto the summit from where open views of the array area are experienced.

15.7.145 The **Medium-high** sensitivity is derived from the combination of the high value of the landscape through which the path passes and the medium-high susceptibility of walkers. The high value relates to the location of the coast in the Coast Highly Sensitive Landscape Area (Fingal) which denotes its county level value, and the eastern and southern parts of Howth are covered by a Special Amenity Area Order which denote the county level importance of this landscape. The medium-high susceptibility relates to the heightened awareness that walkers on the Howth Head Loop will have of their surroundings and their appreciation of the open views along the coast and over the sea. Their susceptibility is prevented from being rated high owing to the presence of existing coastal developments, most notably housing along the northern and southern coastlines.

PVR 6: The Wicklow Way

15.7.146 Viewpoint 23: Djouce Mountain is located on the Wicklow Way and is representative of views from elevated parts of the way where there is theoretical visibility of the array area.

15.7.147 The Wicklow Way is a 131km long distance walking trail that follows a north to south route through the Wicklow Mountains. It starts in Marlay Park in the southern suburbs of Dublin and extends to the village of Clonegal in County Carlow. The Wicklow Way passes through a range of different landscapes including wooded glens, open moorland and rural farmland. While views along much of the route are contained by enclosing forestry and landform, there are sections that traverse the slopes of the open uplands from where much more expansive views are experienced, often extending out across the wider upland extents and to the eastern seaboard. From its start point in Marlay Park, the Wicklow Way winds its way through the low foothills and although commercial forestry is extensive, open sections occur around Fairy Castle and Glencullen Road. The section through Glencree is largely afforested and then followed by an open section over the upper eastern flank of Djouce Mountain (725 m AOD) from where views to the eastern coast are experienced and where viewpoint 23 is located. The route passes mostly through forestry between Lough Tay and Lough Dan and although more open sections occur beyond this, the route is mostly contained on lower slopes, lough-sides and in glens, such that views are characterised by the surrounding hills and seldom extend as far as the eastern coast.

15.7.148 The sensitivity of walkers on the Wicklow Way varies depending on the different contextual influences experienced along its length. In those sections contained by commercial forestry, the **Medium** sensitivity is derived from a combination of the medium value of the views and the medium susceptibility of viewers. In those sections that occur in the open uplands, the **Medium-high** sensitivity is derived from the combination of the medium-high value of the views and medium-high susceptibility of walkers. This variation reflects the increase in visual amenity experienced from the more open sections.

PVR7: Wicklow

15.7.149 Viewpoint 1 is located in southern Wicklow at the Golden Gates Scenic Viewpoint car park, an elevated point above the town providing open views across the town and northeast across the Irish Sea towards the array area.

15.7.150 The town of Wicklow marks the southern extent of the long and low coastal plain that lies between Bray Head and Wicklow Head. Its origins relate to the natural harbour formed by the coastline, which was used by Viking settlers in the mid-9th century. The historic core of the town occupies the low-lying land around the harbour, while subsequent expansions have encroached onto the lower to middle slopes of the rising hills to the south of the town. To the west, development has extended to coalescence with the neighbouring settlement of Rathnew. Seaward views are, therefore, experienced from seafront properties, as well as those in the more elevated and exposed parts of the settlement. The orientation of the rising landform is south and south-east, such that many of the properties set on this landform follow this orientation with views north along the east coast and out over the Irish Sea. The coastal plain north of Wicklow is low-lying and flat. The coastal edge is smoothly rounded, with a narrow band of sands and shingle backed by loughs and salt marshes. Towards Greystones and Bray, a rise in the coastal landform is evident and, albeit distant, the coastal hills create a sense of enclosure to the onshore waters. The built form stretches from Broad Lough in the north to residential developments that extend piecemeal out from the town into agricultural land inland from Brides Head in the south. While most of the development appears to be small in scale and traditional in character, there are also some larger scale modern buildings, especially on the northern edge of the town. Further up the coast, there is a notable absence of development. Although there is no visible development in the Irish Sea, there is the periodic and transitory movement of ferries and other watercraft.

15.7.151 The **Medium-high** sensitivity is derived from the combination of the medium value of the views from the town and medium-high susceptibility of viewers. The medium value relates to the fact that although there is one elevated formal viewpoint in the town, views are otherwise incidental, and the town is not covered by any landscape designations which would otherwise denote a special scenic value. The medium-high susceptibility of viewers relates to their heightened awareness of their surroundings and their appreciation of the open and expansive views. The medium-high susceptibility relates to residents and walkers, who will potentially experience views for a longer than transitory road-users, whose susceptibility will be medium. The **Medium** susceptibility and sensitivity of road-users relates to the more transitory nature of their views, the typical enclosure from surrounding built form and the focus on navigating urban streets.

PVR8: Greystones

15.7.152 Viewpoint 4 is located at Greystones Harbour and is representative of the fullest extent views from the town towards the array area.

15.7.153 Greystones is a harbour town, set on the eastern coast, 3.5km south of Bray and 21km north of Wicklow. But unlike Wicklow, the origin of Greystones is more recent. While a small fishing settlement occupied this coastal area by the late 18th century, it wasn't until the arrival of the east coast rail line in 1855 that Greystones became established as an attractive coastal town and resort. The harbour lies on the northern side of the town, beyond which low cliffs and a stoney beach extend north to the landmark feature of Bray Head. The harbour has been recently redeveloped with modern apartments presenting a contrast with the Victorian villas which typify the town's seafront area. To the south of the town, there is a 1km sandy beach which is popular with visitors. Views of the open and expansive seascape are experienced by residents along the seafront, while views from properties set behind the seafront are typically screened and although there is some rise to the landform, there is typically not enough elevation to enable views to open up over roof tops. For walkers, seaward views can be experienced from the seafront and the beaches, as well as from other parts of the town where streets align seawards, or more elevated and open aspects occur. Similarly, the views of road-users along the seafront will be open across the sea, but not so readily apparent from the streets in other parts of the town.

15.7.154 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the views and medium-high susceptibility of viewers. The medium-high value of the view relates to the visual amenity associated with the seafront area and beaches and the fact that this coastal aspect is the defining feature of the town. This heightens the susceptibility of residents along the seafront, where the principal outlook is east across the sea. Walkers around the harbour and along the seafront will be aware of their surroundings and be experiencing open views typically drawn seawards. The **Medium** susceptibility and sensitivity of road-users relates to the more transitory nature of their views, the typical enclosure from surrounding built form and the focus on navigating urban streets.

PVR9: Bray

15.7.155 Viewpoint 7 is located on Bray Promenade and represents fullest extent views from the town towards the array area.

15.7.156 While the origins of the settlement of Bray dates back to Norman times, it was the arrival of the railway line in the 19th century that saw the town develop as a popular seaside resort. Bray is characterised by the broad sweep of the promenade and associated gardens, which extend north to south along the coast, and also the large Victorian villas which enclose the seafront on the western aspect. The PVR is representative of the views of locals and visitors along the promenade and on the beach, road-users on the coast road and residents in seafront and elevated properties, where they enjoy an outlook over the sea. The seascape is contained to the south by the pronounced and close-range landform of Bray Head, and to the north by the lower and more distant ridgeline from Killiney Hill to Sorrento Point and Dalkey Island. There is no visible development out at sea, only transitory watercraft periodically crossing the inshore waters. The town of Bray lies in the relatively flat valley of the lower reaches of the River Dargle. While there is a slight rise in the landform to the west of the coast, this is insufficient for views over roof tops to occur. This means that inland views of the sea are limited to glimpsed views for walkers and road-users from more elevated and exposed areas and streets that align seawards. To the south of the town, properties set on the lower slopes of Bray Head, do gain more open views, although these are typically orientated north along the coast, with Bray Head screening views of the wider seascape.

15.7.157 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the views and medium-high susceptibility of viewers. The medium-high value of the view relates to the visual amenity associated with the seafront area and beaches and the fact that this coastal aspect is the defining feature of the town. This heightens the susceptibility of residents along the sea front, where the principal outlook is east across the sea. Walkers around the harbour and along the sea front, will be aware of their surroundings and be experiencing open views typically drawn seawards. The **Medium** susceptibility and sensitivity of road-users relates to the more transitory nature of their views, the typical enclosure from surrounding built form and the focus on navigating urban streets.

PVR10: Shanganagh

15.7.158 Viewpoint 9 is located on the beach east of Shanganagh and represents the fullest extent views from this area.

15.7.159 The coastline north of Bray and south of Shankill is the last largely undeveloped section before reaching the conglomeration of Dublin City. The area is occupied by Shanganagh Park and Cemetery, as well as Woodbrook golf course. While there is vehicular access to the recreational facilities, this is restricted and most of the coastline can only be accessed by pedestrians. The coastline comprises low cliffs and a shingle beach and is backed by the open grasslands of the golf course and park. There is an open aspect across the sea, with the view framed by Sorrento Point to the north and Bray Head to the south. While some development is visible on Killiney Hill, from this viewpoint, the coast appears largely undeveloped. Development at Shanganagh is typically small in scale and dispersed within a landscape setting, with the exception being the DART line which cuts a north-south route through the middle of this area.

15.7.160 The **Medium-high** sensitivity is derived from the combination of the medium value of the views and medium-high susceptibility of viewers. There are no formal viewpoints, and the area is not covered by any landscape designations which would otherwise denote a special scenic value. The medium-high susceptibility of walkers on the beach and other recreational users of the park and golf course relates to the heightened awareness of their surroundings and the natural draw of views towards the seaboard aspect. The **Medium** susceptibility and sensitivity of road-users relates to the more transitory nature of their views, the typical enclosure from surrounding built form and the focus on navigating urban streets.

PVR11: Shankill / Ballybrack

15.7.161 Viewpoint 9 is located on the beach east of Shanganagh and represents the fullest extent views from this area.

15.7.162 In both these residential suburbs on the southern side of Dublin, it is only from the eastern coastal edge that views towards the sea occur. In Shankill, a relatively modern residential area comprising detached and semi-detached properties, occupies the coastal edge, albeit recessed from the low cliffs with typically an area of grassed open space forming the separation. The properties on the eastern edge mostly face seawards, while the openness of the coastal edge means that the views of residents, walkers and road-users are all fairly expansive. In Ballybrack, the DART rail line separates most of the urban area from the coast. The exception occurs where Strand Road is set to the east of the rail line and, despite dense tree cover along the street, the series of large Victorian villas set along the cliff top command expansive seaward views.

15.7.163 The **Medium-high** sensitivity is derived from the combination of the medium value of the views and medium-high susceptibility of viewers. There are no formal viewpoints, and the area is not covered by any landscape designations which would otherwise denote a special scenic value. The medium-high susceptibility of residents relates to the openness of their coastal views and the long period over which they will be experienced. Walkers will also experience a medium-high susceptibility, especially in the Shankill area where the open space allows expansive views. The **Medium** susceptibility and sensitivity of road-users relates to the more transitory nature of their views, the typical enclosure from surrounding built form and the focus on navigating urban streets.

PVR12: Killiney

15.7.164 This PVR is represented by Viewpoint 10: Killiney Hill Obelisk and Viewpoint 11: Vico Road seating area, which are representative of the fullest extent views from the town.

15.7.165 The origins of Killiney relate to a monastic site dating back to the 6th century. The growth and popularity of this area only came about in Victorian times, with the development of attractive Victorian villas, the arrival of the train line and the creation of Victoria Park on Killiney Hill. The elevated landform of the low coastal hills meant that properties could be orientated to take advantage of attractive coastal and seaward views and as such, Killiney developed as an affluent area comprising high end real estate. The combination of high stone walls, large villas and mature tree cover means that seaward views of walkers and road-users in this area are seldom open or expansive. Exceptions occur along Station Road, at the seating area on Vico Road and from the summits of Killiney and Dalkey Hills. For residents, views are often more open and expansive owing to the prime location of their properties and their seaward orientation. While the rising landform of Killiney and Dalkey Hills contains views to the north, to the south they open up across the seascape, extending as far south as the prominent coastal landform of Wicklow Head. This is the principal outlook from this area and is characterised by an undeveloped seascape. While this viewpoint is located in an urban area, the low density of the residential properties combined with the presence of the coastal hills and associated vegetation, moderates the urban influence. The DART railway line follows the coastline from Killiney Beach to Sorrento Point.

15.7.166 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the views and medium-high susceptibility of viewers. The medium-high value relates to the importance of the views from the key prospects within this area but is offset by the absence of any landscape designation covering this area which would otherwise denote a special scenic value. The medium-high susceptibility of residents and walkers relates to their heightened awareness of their surroundings and their appreciation of expansive views over the coast and sea. Their susceptibility is prevented from being rated high owing to the existing influence of development along the coastline. The susceptibility and sensitivity of road-users is rated **Medium** owing to the relatively enclosed experience which the high walls, villas and tree cover create, thus limiting the occurrence of open coastal views.

PVR13: Dalkey

15.7.167 Viewpoint 12: Coliemore Harbour seat area - where the location of the viewpoint on the coast of Dalkey is representative of the fullest extent views towards the array area from the suburb.

15.7.168 Dalkey is a wealthy suburb of Dublin, set to the south-east of Dún Laoghaire and north of Killiney. It was founded as a Viking settlement and developed into a busy port during the Middle Ages. Dalkey is set on the headland which marks the southern extent of Dublin Bay. While the 'town centre' is set inland and enclosed by built development, such that seaward views are limited, the rising landform of the coastal edge between Sorrento Point and Sandycove ensures that seaward views extend inland beyond the seafront properties. The location of properties along much of the coastal edge and on the rising landform above this, ensures that many residents experience open and expansive views of the sea. The enclosure formed by high walls and built development, limits the fullness of views experienced by walkers and road-users, although coastal open spaces such as Sorrento Park, Coliemore Harbour and Bullock Harbour increase the extent of visibility for walkers. The north-east orientation of this coastline means that views are drawn towards Dublin Bay and the Irish Sea, with Dalkey Island forming a closer range feature. While ferries and other watercraft are visible on the sea, there is no permanent offshore development visible. The surrounding architecture comprises mostly large Victorian villas with an attractive prospect across the open sea. There is also more modern infill development, although mostly respectful of the relatively small scale and traditional character of this area.

15.7.169 The **Medium-high** sensitivity is derived from the combination of the medium-high value of the views and medium-high susceptibility of viewers. There are few formal viewpoints and an absence of any landscape related planning designations which would otherwise denote a special scenic value. This area is, however, important in terms of visual amenity, relating to the attractive aspect of the coastline. The susceptibility of residents and walkers is medium-high. Many of the properties are orientated seawards and residents experience an open outlook for potentially longer periods of time. While the views of walkers are often partly or fully screened by intervening walls and properties, where open areas occur their attention is typically drawn seawards. The **Medium** susceptibility and sensitivity of road-users relates to the more transitory nature of their views, the typical enclosure from surrounding built form and the focus on navigating urban streets.

PVR14: Dún Laoghaire

15.7.170 Viewpoint 13: Dún Laoghaire Harbour East Pier is representative of the fullest extent views of the array area from this area.

15.7.171 Dún Laoghaire marks a transition from the more suburban coastal areas of Killiney and Dalkey to the more urban areas which characterise the coast of Dublin Bay. The key feature in this area is the harbour, with its long west and east piers and the ferry terminal set within the enclosed waters. The seafront area is dominated by the busy N31 road and DART rail line, both of which connect Dublin to the harbour. While the more traditional Victorian villas typify the coast around Sandycove and Scotsman's Bay, there are also larger modern developments closer to the harbour. Seafront development is set well back from the coastal edge to allow space for the tree-lined boulevard and railway, as well as intermittent open spaces. Views are naturally drawn seawards and framed by Howth Head to the north and Dalkey Island to the south. While there is no permanent development visible out at sea, the presence of the ferry terminal and harbour means that there is periodic and transitory movement of ferries and other watercraft.

15.7.172 The **Medium-high** sensitivity is derived from the combination of the medium value of the views and medium-high susceptibility of viewers. There are no formal viewpoints, and the area is not covered by any landscape designations which would otherwise denote a special scenic value. Furthermore, the presence of the harbour, the busy roads and train line detract from the visual amenity of this area, although attractive seaward views do still occur. The susceptibility of residents and walkers on the seafront is medium-high. Many of the properties are orientated seawards and residents experience an open outlook for potentially longer periods of time. While the views of walkers are shorter in duration, their exposure to the coast means they also have a heightened awareness of the surroundings. The **Medium** susceptibility and sensitivity of road-users relates to the more transitory nature of their views, the typical enclosure from surrounding built form and the focus on navigating urban streets.

PVR 15: Monkstown / Blackrock

15.7.173 The relatively flat and low-lying landform of this coastal edge means that visibility of the sea is largely confined to the extent of the seafront, apart from where open spaces or streets aligned to the coast occur. The DART train line sits close to the coastal edge, such that rail passengers experience especially open and expansive seaward views. The rail line also severs both physical and visual connections between some residential areas and the coastal edge. Exceptions occur in Monkstown, where Seapoint Beach, the promenade and some residential streets are all well connected to the coastal edge. While much of Blackrock is detached from the coast owing to the train line and other intervening developments, the strip of open space between Blackrock Beach and Booterstown Nature Reserve presents walkers and other recreational users with open views out to the sea. While residents and road-users on Rock Road will experience some seaward views, the separation from the coast, the busyness of the six-lane road and the presence of intermittent developments, weakens the association.

15.7.174 The **Medium-high** sensitivity is derived from the medium value of the views and the medium-high sensitivity of viewers. In terms of value, there are no formal viewpoints, and the area is not covered by any landscape designations which would otherwise denote a special scenic value. There is, however, an informal value relating to the visual amenity of the open spaces and residential properties which front onto the coastal edge. In terms of susceptibility, those residents and walkers who experience open seaward views, have a medium-high susceptibility. This relates to the heightened awareness walkers have of their surroundings and the long duration over which residents will experience these views. The **Medium** susceptibility and sensitivity of road-users relates to the more transitory nature of their views, the typical enclosure from surrounding built form and the focus on navigating urban streets.

PVR16: Sandymount

15.7.175 Viewpoint 14: R131 near Martello Tower, Sandymount is located on the promenade providing open views towards the array area and as such represents the fullest extent views towards of the array area from this suburb.

15.7.176 Sandymount lies to the north-west of Blackrock and the south of Dublin Port. At the intersection of the R131 and the R118, the R131 crosses the DART rail line, which leaves its coastal position and heads inland towards Dublin city centre. The R131 switches onto the coastal edge for the full stretch of Sandymount Strand, until it reaches the outer reaches of Dublin Port. For much of its length it is lined by a narrow strip of open space which is mostly parkland albeit with a promenade and some areas set out for parking. The seafront terraces and villas are separated from the promenade by gardens and garden vegetation, as well as the busy R131 coast road and associated parking. For road-users, their views towards the sea are also interrupted by the parked cars on the seaward side, while pedestrians and cyclists on the prom experience open and largely uninterrupted views. The natural draw of the view is east towards the sea, with Dublin Bay framed by Howth Head to the north and Dalkey Island to the south. Beyond the low rocky sea defence and the broad shallow beach, the key focus is Dublin Port owing to the large scale, light and bright coloured materials, and tall structures of the energy developments in this location. Despite their distance, their large scale compared to the small scale of this residential area, is apparent. While there are no developments visible out at sea, a disused concrete platform is visible close to shore. Ferries, freight traffic and recreational watercraft are common features within the Bay.

15.7.177 The **Medium-high** sensitivity is derived from the combination of the medium value of the views and medium-high susceptibility of viewers. There are no formal viewpoints, and the value of the views from this area is moderated by the presence and influence of the larger scale developments located at Dublin Port. The susceptibility of residents and walkers on the seafront is medium-high. Many of the properties are orientated seawards and residents experience an open outlook for potentially longer periods of time. While the views of walkers are shorter in duration, their exposure to the coast means they also have a heightened awareness of the surroundings. The **Medium** susceptibility and sensitivity of road-users relates to the more transitory nature of their views, the typical enclosure from surrounding built form and the focus on navigating urban streets.

PVR 17: Dublin Port

15.7.178 Viewpoint 26 is located on Poolbeg Pier that extends east out from Dublin Port and is representative of views of recreational users who walk along the pier and swimmers at the swimming club located on the pier. Being located further east from the port which provides more open views to the southeast in the direction of the array area it represents the fullest extent views from the port.

15.7.179 Dublin Port is located on made land to the north and south of the mouth of the River Liffey. With an area of 510 acres to the north and 130 acres to the south, the harbour occupies a substantial area of land and forms the defining feature in Dublin Bay. This is the busiest port in the ROI, with freight handling and ferry traffic the two main activities. There is also a series of large-scale developments comprising of tall chimneys and industrial scale buildings. These include a gas-fired power station and oil terminals. The roads in this area are typically busy and often dominated by heavy goods vehicles. While residential properties and other commercial and retail uses occupy the eastern edge of the city centre adjacent to Dublin Port, their views are typically dominated by the port. Workers at Dublin Port will therefore be the group of visual receptors most notably affected by the Dublin Array offshore infrastructure.

15.7.180 The **Medium** sensitivity is derived from the medium-low value of the views and the medium susceptibility of viewers. There are no formal viewpoints in this area and there are no landscape designations which would otherwise denote a special scenic value. The visual amenity of this area is moderated by the presence and influence of large-scale development associated with Dublin Port as well as the heavy traffic on roads in this area. The susceptibility of residents, road-users and walkers in this area is medium owing to their visual association with the open seascape despite there being parts from which seaward views are screened by intervening developments, large scale vessels and heavy traffic.

PVR 18: Clontarf

15.7.181 Viewpoint 15: Promenade near Clontarf village is located on the waterfront to the south of Clontarf with open views towards the array area, it is representative of the fullest extent views from this suburb.

15.7.182 Clontarf is an inner suburb of Dublin City, occupying the northern shore of Dublin Bay between Alfie Byrne Road and St. Anne's Park. A promenade runs the length of the seafront, backed by a substantial strip of public open space and with the busy Clontarf Road (R105) routed along the northern edge. Set on the northern side of the road is mostly residential development, with some retail and other commercial uses at the local centres. Clontarf has a southerly aspect across the water with the focus being on the large-scale energy developments which occupy the promontories either side of the harbour. The outline of the distant Wicklow Mountains can be seen in the background. The promenade is set within a substantial band of open space, and the inclusion of mature trees presents more of a parkland appearance than other waterfront promenades along Dublin Bay. The depth of this space, however, means that the seafront properties are well recessed from the shoreline and separated by the busy R105 main coastal road between Howth and the city centre. The low density of the predominantly 20th century properties along this strip presents a suburban character and there is generally a sense of openness and space.

15.7.183 The **Medium-high** sensitivity is derived from the combination of the medium value of the views and medium-high susceptibility of viewers. There are no formal viewpoints in this area and no landscape designations which would otherwise denote a special scenic value. The susceptibility of residents and walkers on the seafront is medium-high. Many of the properties are orientated seawards and residents experience an open outlook for potentially longer periods of time. While the views of walkers are shorter in duration, their exposure to the coast means they also have a heightened awareness of the surroundings. The **Medium** susceptibility and sensitivity of road-users relates to the more transitory nature of their views, the typical enclosure from surrounding built form and the focus on navigating urban streets.

PVR 19: Raheny / Kilbarrack / Sutton

15.7.184 Viewpoint 17: R105, Sutton, is located on the cycle path that sits adjacent to the shore at Sutton. The open views southeast towards the array area represent the fullest extent of the offshore infrastructure potentially visible from these residential areas.

15.7.185 Raheny, Kilbarrack and Sutton are the residential areas on the northern side of Dublin Bay, set between Clontarf to the south-west and Howth to the east. While these areas have a shoreline, it is separated from Dublin Bay by the presence of North Bull Island, which forms a characterising feature in seaward views. The character of the Kilbarrack seafront has a planted bank on the northern side of the road, which separates the residential properties and prevents a positive frontage from being created. Furthermore, the open space along the seafront is reduced to a narrow strip and open seaward views are contained by North Bull Island. From Kilbarrack onto Sutton, residential properties front the road, although often recessed well back from the road within private gardens. The mix of properties comprises of detached and semi-detached properties mostly built in the 20th century and more modern detached and multi-storey apartment complexes built in the 21st century. While the promenade continues all the way to Howth, there is no associated open space, and the walkway / cycleway is only separated from the main road by a low wall.

15.7.186 The **Medium-high** sensitivity is derived from the combination of the medium value of the viewpoint and medium-high susceptibility of viewers. The viewpoint is not a formal viewpoint and is not covered by any landscape designations which would otherwise denote a special scenic value. The medium-high susceptibility of walkers along the seafront relates to their heightened awareness of their surroundings and appreciation of open views across North Bull Island. Residents along the seafront are also of a medium-high susceptibility owing to the orientation of their properties towards the sea and the longer-term nature of their views. The **Medium** susceptibility and sensitivity of road-users relates to the more transitory nature of their views, the typical enclosure from surrounding built form and the focus on navigating urban streets.

PVR 20: Howth Head

15.7.187 Viewpoint 18: Howth Head Scenic Viewpoint is located at the Summit Car Park with wide, open views to the east and south across the Irish Sea. It's open views in the direction of the array area means that it represents the fullest extent views from Howth Head in the direction of Dublin Array offshore infrastructure.

15.7.188 Howth village is located on the northern side of the peninsula, with its origins linked to the natural harbour this coastline presents. While the historic core of the town is concentrated around the harbour and along the northern coastline, more recent residential developments have extended along the route of the R105 as it extends south over the rising landform and then parallel to the southern coast. Those properties in the more elevated and exposed locations offer their residents open and expansive views out across the surrounding sea, while the views from most are contained by surrounding properties, landform or tree cover. Similarly, for road-users, views are largely contained apart from the open sections, which occur along the north-eastern and southern coasts. It is the provision of access to walkers along the southern coastline and more exposed upland areas that ensures they experience visibility of the surrounding seascape from the most extensive areas.

15.7.189 The **Medium-high** sensitivity is derived from a combination of the high value of the views and the medium-high susceptibility of the viewers. The high value relates to the Special Amenity Area Order which covers a substantial part of the peninsula and the Coast Highly Sensitive Landscape Area (Fingal) which covers the entirety of the peninsula. The medium-high susceptibility relates to those walkers and residents in and around Howth who, from the more elevated and exposed parts, experience open and expansive seaward views. The **Medium** susceptibility and sensitivity of road-users relates to the more transitory nature of their views, the typical enclosure from surrounding built form and the focus on navigating urban streets.

Future baseline

15.7.190 The baseline character of the landscape in the study area is likely to change in the future as a result of the effects of climate change, land use policy, environmental improvements and development pressures, regardless of whether the proposed Dublin Array project progresses to construction or not.

- 15.7.191 A range of policies impact on the management of the landscape, ranging from European Directive, national policy and regulation, through to community strategies and development frameworks, as set out in Annex B: Seascape, Landscape and Visual Impact Assessment Policy. Landscape planning policies covering the coastal landscape within the study area, such as the AONB, generally seek to conserve and enhance the natural beauty of the area, while recognising the need to adapt to inevitable change over time, particularly in such a dynamic coastal landscape shaped by coastal processes, and the need to respond to development pressures that reflect the changing needs of society.
- 15.7.192 There is overwhelming evidence that global climate change, influenced by the human use of fossil fuels, raw materials and intensive agriculture, is occurring (IPCC 2023). Any notable change in climate is likely to present potential changes to the coastline of the study area in a variety of ways. The legislative framework already exists to ensure that no net loss of internationally important habitat occurs, but there remains a need to increase understanding of the potential effects of climate change on the characteristic landscapes of the study area and to develop longer term strategies that will mitigate any adverse effects of climate change.
- 15.7.193 Further development pressures which may change the baseline conditions, include suburbanisation and increased tourist development influences, particularly around the coastal landscapes and established coastal towns within the study area, which have potential to increase the developed influence and reduce perceived naturalness of the coastline.

15.8 Uncertainties and technical difficulties encountered

Zone of Theoretical Visibility

- 15.8.1 ZTVs have been generated using GIS software (ESRI ArcGIS Version 10.5) to demonstrate the extent to which the Dublin Array offshore infrastructure will be theoretically visible from any point in the study area. The blade tip ZTVs are shown in Figures 3.15.9a, 3.15.9b and 3.15.9c, while the hub height ZTVs are shown in Figures 3.15.10a, 3.15.10b and 3.15.10c – all presented in the SLVIA GIS Figures Appendix.
- 15.8.2 A 3D computer model of the existing landscape and key reference has been generated using the following digital terrain data; 30m Copernicus DTM data and Ordnance Survey Ireland 10m DTM. The zones of theoretical visibility are calculated based on the height of the landform relative to the height of the offshore infrastructure. The ZTVs do not take into account the screening effect of woodland or other vegetation, buildings or other local features because of the complexity and cost of the data that would be required to cover the 50km study area. As a result, the ZTVs present a conservative worst-case assumption in respect of theoretical visibility, and this is highlighted in the limitations set out below.
- The ZTVs are based on theoretical visibility from 2 m above ground level.
 - The Blade Tip ZTV does not indicate the decrease in visibility that occurs with increased distance from the array area. The nature of what is visible from 3km away will differ markedly from what is visible from 10km away, although both are indicated on the Blade Tip ZTV as having the same level of visibility.

- ▲ There is a wide range of variation within the visibility shown on the ZTV, for example, an area shown on the blade tip ZTV as having visibility of 40 WTGs may gain views of the smallest extremity of blade tips, or of 40 full WTGs. This can make a considerable difference in the effects of the Dublin Array offshore infrastructure on that area. The hub height ZTV has been used in conjunction with the blade tip ZTV to provide an indication of the degree to which the WTGs are visible.

15.8.3 These limitations mean that while the ZTV is used as a starting point in the assessment, providing an indication of where the Dublin Array offshore infrastructure will be theoretically visible and tending to present a worst-case or over-estimate the actual visibility. The information drawn from the ZTV has been checked by field survey observation.

Visualisations

15.8.4 Photomontages have been produced in accordance with NatureScot Visual Representation of Windfarms Guidance (NatureScot, 2017) and Landscape Institute (2019) Technical Guidance Note (TGN) 06/19 Visual Representation of Development Proposals.

15.8.5 The EIA Methodology Chapter explains how the EIA considers three layouts;

- ▲ 39 WTGs at a height of 309.6 m (LAT) to blade tip;
- ▲ 45 WTGs at a height of 281.6 m (LAT) to blade tip; and
- ▲ 50 WTGs at a height of 267.6 m (LAT) to blade tip.

15.8.6 These three layouts present a robust range for the assessment of the proposed Dublin Array offshore infrastructure in terms of the number and height of the WTGs. For the purposes of the SLVIA, the assessment focuses on the layout comprising 39 WTGs at a height of 309.6 m (LAT) to blade tip as this presents the Maximum Design Option (MDO) as explained at paragraph 15.9.10 and is used in the production of the photomontages for all 26 SLVIA viewpoints presented in Figures 3.15.26 to 3.15.51 SLVIA Visualisations Appendix. Comparative wirelines illustrate two other layouts for all 26 SLVIA viewpoints and these are presented in Figures 3.15.52 to 3.15.77 of the SLVIA Visualisations Appendix.

15.8.7 Visualisations of offshore infrastructure have a number of limitations which occur when using them to form a judgement on the effects of this type of development. These include:

- ▲ A visualisation can never show exactly what the offshore infrastructure will look like in reality due to factors such as the resolution of the image and different lighting, weather and seasonal conditions which vary over time;
- ▲ The images give a reasonable impression of the scale of the offshore infrastructure and the distance from the viewpoint and, whilst they have been produced to accord with best practice guidance, can never be 100% accurate;
- ▲ The viewpoints illustrated are representative of views in the area, but cannot represent visibility at all locations;

- ▲ To form the best impression of the impacts of the offshore infrastructure these images are best viewed in the field at the viewpoint location shown; and
- ▲ The visualisations must be printed at the right size to be viewed properly (A1 width) and viewed at a comfortable viewing distance.

15.8.8 The photographs used to produce the photomontages have been taken using Canon EOS 5D and 6D Digital SLR cameras, with a fixed lens and a full-frame (35 mm negative size) CMOS sensor. The photographs are taken on a tripod with a pano-head at a height of approximately 1.5 m above ground.

15.8.9 To create the baseline panorama, the frames are individually cylindrically projected and then digitally joined to create a fully cylindrically projected panorama using Adobe Photoshop or PTGui software. This process avoids the wide-angle effect that would result should these frames be arranged in a perspective projection, whereby the image is not faceted to allow for the cylindrical nature of the full 360-degree view but appears essentially as a flat plane. The visualisations should be viewed flat at a comfortable arm's length.

15.8.10 53.5-degree field of view frames have been used to assist interpretation of the likely effects of the project. They show an enlarged image of the development, which is considered authentic in conveying the likely actual scale that would be experienced on site. For some viewpoints two or three 53.5-degree frames have been included to illustrate the full extent of the project. A 90-degree baseline photograph frame has also been included to illustrate the wider context of the views experienced from each viewpoint.

15.8.11 These images are each printed on paper 841 x 297 mm (half A1), which provides for a relatively large-scale image. Tonal alterations are made using Adobe software to create an even range of tones across the photographs once joined.

15.8.12 3D model views that illustrate the offshore infrastructure are used in the assessment to present an indicative appearance of the project. These are produced with Visual Nature Studio software and are based on the Ordnance Survey Ireland (OSI) 10 m Digital Terrain Model (DTM) with a 10 m data grid. There are limitations in the accuracy of DTM data so that finer elements of landform may not be picked up precisely and may result in parts of the offshore infrastructure, being more or less visible than is shown, however, the use of OSI 10 m DTM minimises these limitations. Where descriptions within the assessment identify the extent of offshore infrastructure visible, this refers to the illustrations generated and, therefore, the reality may differ to a degree from these impressions.

15.8.13 Photomontages have been produced for all the representative viewpoints, using Adobe Photoshop software, to provide a realistic image of the appearance of the offshore infrastructure. All these photomontages include the introduction of the offshore WTGs, as these are the elements that will create the greatest change in views and are likely to be most visible from the surrounding area. The OSP and multi-leg foundations are also included in all photomontages for viewpoints out to 20km from the offshore infrastructure, as these also form notable structures which will contribute to the overall impact.

15.8.14 The location and scale of the computer-generated offshore infrastructure has been verified using markers such as landform features and built structures on the coastal edge.

15.8.15 The photographs and photomontages used in this assessment are for illustrative purposes only and, whilst useful tools in the assessment, are not considered to be completely representative of what will be apparent to the human eye. The assessments are carried out from observations in the wider field and, therefore, may include elements that are not visible in the photographs, for example a train line or road located in a nearby cutting.

15.8.16 GPS readings and accurate aerial photography have been used to verify viewpoint locations and markers within the OSI terrain model, which is referenced to the TM65 co-ordinate system.

Public access

15.8.17 The assessment has been carried out from publicly accessible areas. In instances where areas around viewpoints have been inaccessible, other sources of information have been used, such as aerial photography, and this has helped develop an understanding of the surrounding context. Professional judgement has been applied in the interpretation of these sources.

15.9 Scope of the assessment

Scoped in

15.9.1 The following impacts will be assessed:

- ▲ Construction:

 - Presence and activity of construction vessels and associated plant;
 - Presence of emerging offshore WTGs and OSP; and
 - Presence of lighting on construction vessels and associated plant.
- ▲ Operation and maintenance:

 - Presence of offshore WTGs and OSP and movement of WTG blades;
 - Presence and activity of operational vessels and helicopters used to service offshore infrastructure; and
 - Presence of aviation and marine navigation lighting on offshore WTGs and OSP.
- ▲ Decommissioning:

 - Presence and activity of decommissioning vessels and associated plant; and
 - Presence of partially deconstructed offshore WTGs and, OSP ; and
 - Presence of lighting on decommissioning vessels and associated plant.

15.9.2 While the location of the subsea Offshore Export Cable Corridor (ECC) along the seabed means that the construction, operation, maintenance and decommissioning will have no effect on seascape, landscape and visual receptors, the effect of the construction vessels and plant associated with their installation and decommissioning will have an influence and these effects are incorporated into the overall assessment during these phases.

Scoped out from further evaluation in this EIAR

15.9.3 The effects of the Offshore ECC during the operational phase have been scoped out of this assessment as it will be located along the seabed and therefore will not have a presence that would otherwise potentially affect landscape and visual receptors.

15.10 Key parameters for assessment

Maximum Design Option

15.10.1 As set out in the Application for Opinion under Section 287B of the Planning and Development Act 2000, flexibility is being sought where details or groups of details may not be confirmed at the time of the application. In summary, and as subsequently set out in the ABP Opinion on Flexibility (the EIA Methodology Chapter) the flexibility being sought relates to those details or groups of details associated with the following components (in summary - see further detail in see the Project Description Chapter):

- ▲ WTG (model – dimensions and number);
- ▲ OSP (dimensions);
- ▲ Array layout;
- ▲ Foundation type (WTG and OSP; types and dimensions and scour protection techniques); and
- ▲ Offshore cables (IAC and ECC; length and layout).

15.10.2 To ensure a robust, coherent, and transparent assessment of the proposed Dublin Array project for which development consent is being sought under section 291 of the Planning Act, the Applicant has identified and defined a Maximum Design Option (MDO) and Alternative Design Option(s) (ADO) for each environmental topic/receptor. The MDO and ADO have been assessed in the EIAR to determine the full range and magnitude of effects, providing certainty that any option within the specified parameters will not give rise to environmental effects more significant than that which could occur from those associated with the MDO. The extent of significant effects is therefore defined and certain, notwithstanding that not all details of the proposed development are confirmed in the application.

- 15.10.3 The range of parameters relating to the infrastructure and technology design allow for a range of options in terms of construction methods and practices, which are fully assessed in the EIAR. These options are described in the project description and are detailed in the MDO and ADO tables within each offshore chapter of the EIAR. This ensures that all aspects of the proposed Dublin Array project are appropriately identified, described and comprehensively environmentally assessed.
- 15.10.4 In addition to the details or groups of details associated with the components listed above (where flexibility is being sought), the confirmed design details and the range of normal construction practises are also assessed within the EIAR (see the Project Description Chapter). Whilst flexibility is not being sought for these elements (for which plans and particulars are not required under the Planning Regulations), the relevant parameters are also incorporated into the MDO and alternative option(s) table herein (Table 4) to ensure that all elements of the project details are fully considered and assessed.
- 15.10.5 With respect to project design features where flexibility is not being sought, such as trenchless cable installation methodology at the landfall, the MDO and alternative design option(s) are the same (as there is no alternative). With respect to the range of normal construction practises that are intrinsic to installation of the development, such as the nature and extent of protection for offshore cables and the design of cable crossings, but which cannot be finally determined until after consent has been secured and detailed design is completed, the parameters relevant to the receptor being assessed are quantified, assigned and assessed as a maximum and alternative, as informed by the potential for impact upon that receptor. In the event of a favourable decision on the application they will be agreed prior to the commencement of the relevant part of the development by way of compliance with a standard 'matters of detail' planning condition (see the Policy Chapter). Throughout, an explanation and justification are provided for the MDO and alternative(s) within the relevant tables, as it relates the details or groups of details where statutory design flexibility is being sought, and wider construction practises where flexibility is provided by way of planning compliance condition.

Array Area

- 15.10.6 The 'array area', describes the area within which all offshore infrastructure will be contained with the exception of the offshore export cables, which will connect the array area with the landfall, albeit with no visible presence owing to their location under the seabed. The key components that will be contained in the array area include the WTGs and the OSP as shown on Figure 13.15.1.
- 15.10.7 The array area is situated approximately 10km from the east coast and aligns as a parallel extent from Dún Laoghaire to Greystones. It comprises of a northern and southern rectangular area, both of which align with long sides north to south and with the northern rectangle inset towards the coast. The array area measures as 59km² and the WTGs will be spaced across this area, with WTGs located around the outer limits, and specifically along the western side closest to the eastern coastline, to ensure the MDO is represented.

WTGs

15.10.8 In accordance with the opinion issued by An Bord Pleanála under section 287A of the Planning and Development Act, 2000, as amended, the final WTG selection will be made post-consent and prior to construction and will be selected in accordance with the parameters set out in the MDO. The WTGs will comprise a tower and hub, with three blades, set on a multi-leg jacket foundation. The three potential layouts considered as part of the assessment include;

- ▲ 39 WTGs at a height of 309.6 m (LAT) to blade tip;
- ▲ 45 WTGs at a height of 281.6 m (LAT) to blade tip; and
- ▲ 50 WTGs at a height of 267.6 m (LAT) to blade tip.

15.10.9 These three WTG layouts have been considered in order to establish the MDO. The WTGs in all three layouts would be spaced out to maximise the array area such that there will be little difference in terms of the horizontal extent that the WTGs would occupy when seen from surrounding receptors. While 50 WTGs at a height of 267.6 m (LAT) to blade tip present a slightly denser appearance, the more notable vertical elevation would be the greater height of the 39 WTGs at a height of 309.6 m (LAT) to blade tip, which would be 42 m taller and overall would present the MDO owing to the broader extents of visibility that would arise across the study area and the greater visibility of the WTGs in views.

15.10.10 The layout comprising 39 WTGs each with a blade tip height of 309.6 m has, therefore, been used as the MDO in the SLVIA and is used in the photomontages in Figures 3.15.26 to 3.15.51 (SLVIA Visualisations Appendix). The MDO uses the location for the OSP that is approximately central to the array area. The comparative effects of the other two layouts are also considered in a comparative assessment in sections 15.12, 15.13 and 15.150 with this assessment supported by comparative wirelines in Figures 3.15.52 to 3.15.77 (SLVIA Visualisations Appendix).

WTG Foundation Structures

15.10.11 The type of WTG foundation to be installed will be determined from the results of geotechnical investigations, existing environmental sensitivities and the final WTG selection based on latest technology. The worst case for the SLVIA assumes that the foundation substructure will comprise a 4-legged jacket foundation substructure. Experience of SLVIA including extensive field work, indicates that jacket foundations present the worst-case scenario in terms of visual impacts. Jacket foundations are shown in the majority of the photomontage visualisations.

15.10.12 On a conservative basis for the assessment, the foundation substructures are assumed to have a working platform and tower interface, where the tower connects with the jacket foundation structure. The height of the platform level is assumed to be 15 m above LAT. The jacket foundations are assumed to have four sides and four legs, supported by cross braces. The foundation substructures will be painted yellow for navigational marking. The effects of the WTG jacket foundations are assessed in the SLVIA and are shown in photomontages of viewpoints that occur within 20km of the array area.

Offshore Substation Platforms

15.10.13 In the MDO there will be one OSP required within the array area, the Indicative location of which is in the centre of the array area, as shown in Figure 3.15.1 (SLVIA GIS Figures Appendix). The MDO confirms that the OSP will have a topside structure of maximum size 45 m x 45 m and a maximum height (excluding telecommunications mast and other ancillary structures) of 45 m above LAT. The maximum height including telecommunications mast and other ancillary structures will be 55 m above LAT.

15.10.14 The foundation type for the construction operation and maintenance platform is assumed to be jacket foundations, supported with cross braces and painted yellow for navigational marking. The effects of the OSP are assessed in the SLVIA and are shown in photomontages of viewpoints that occur within 20km of the array area.

Meteorological Device

15.10.15 There will be no meteorological masts as part of the Dublin Array offshore infrastructure. Meteorological data will be collected using up to two floating Lidar units, the maximum height of which will be 6 m above LAT. They will be located within the array area, which at a minimum of 9km from the closest coastal edge will mean that these structures will appear small in scale. Furthermore, their location adjacent to the WTGs at 309.6 m and the OSP at 45 m will further diminish the perceived scale of the floating Lidar units.

WTG Lighting

15.10.16 The WTGs and OSP will be lit in order to fulfil safety requirements relating to aviation and marine navigation. The current Irish Aviation Authority (IAA) guidance for the lighting of offshore WTGs is ASAM No. 018 (January 2015). As this is currently under review with the prospect that it may become more closely aligned with the International Association of Lighthouse Authorities (IALA) standards and Civil Aviation Authority (CAA) requirements, the requirements of both authorities have been assessed. Specific requirements for aviation and navigational lighting associated with Dublin Array Offshore Wind Farm will be agreed with the relevant stakeholders post-consent and prior to construction.

15.10.17 Dublin Array Offshore Wind Farm will potentially be visible at night from the eastern coastline of the study area owing to the visual effects of aviation lighting. The description of proposed lighting is found within the Project Description Chapter, the Aviation Chapter and the Shipping and Navigation Chapter. Based on this description, the assessment considers two turbine lighting scenarios – a 2,000 cd Red Aviation Warning Light Scenario and 2,000 cd White Aviation Warning Light Scenario. Both scenarios also contain marine navigation lighting, and the following assumptions and maximum parameters are applied to both scenarios:

- ✦ Aviation warning lights (2,000cd red or white) will be located on top of the hub (170.6 m above LAT) of all 30 peripheral WTGs as shown in Figure 3.15.28.
- ✦ Aviation warning lights will flash simultaneously with a Morse W flash pattern and be able to be switched on and off by means of twilight switches.

- ▲ Aviation warning lights will have reduced intensity above and below the horizontal.
- ▲ Marine navigational lights will be fitted at the platform level (15 m above LAT) of 14 WTGs.
- ▲ Search and rescue (SAR) lighting will be located on each of the WTGs. These low intensity lights are not assessed or shown in the night-time photomontages, as they will not be switched on during normal operations and only during SAR operations.
- ▲ Infra-red lighting will also be located on each of the turbine hubs. The infra-red lighting is not visible to the human eye and so are not considered in this assessment. Details of the infra-red lighting will be agreed with the MoD.

15.10.18 The effect of the visible lights is dependent on a range of factors, including the intensity of lights used, clarity of atmospheric visibility and the degree of negative/ positive vertical angle of view from the light to the receptor. In compliance with Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, the likely significant effects of a ‘worst-case’ scenario for turbine lighting are assessed and illustrated in this visual assessment.

15.10.19 The night-time visual effects of the Dublin Array offshore infrastructure have been assessed in the Visual Assessment of Turbine Lighting Appendix and have been informed by the night-time photomontage visualisations produced from three representative viewpoints: Viewpoint 4 – Greystones; Viewpoint 11 – Vico Road; and Viewpoint 18 – Howth Head as presented in Figure 3.15.29, Figure 3.15.36 and Figure 3.15.43 (SLVIA Visualisations Appendix).

Comparative assessment

15.10.20 Consistent with the opinion issued by An Bord Pleanála under section 287A of the Planning and Development Act, 2000, as amended,, the Dublin Array offshore infrastructure presents a range of three potential layouts. For the purposes of the SLVIA it has been possible to identify one of these layouts as presenting the MDO which will give rise to the greatest potential impacts and this has been used as the basis of the assessment presented in sections 15.12, 15.13 and 15.15.

15.10.21 In order to evidence the selection of the layout comprising 39 WTGs at a height of 309.6 m (LAT) as the MDO, this section presents a high-level comparative assessment of the potential impacts of the other two layouts against the selected MDO. This comparative assessment is supported by comparative wirelines presented in Figure 15.52 to 15.77 (SLVIA Visualisations Appendix), which illustrate the two alternative layouts comprising 45 WTGs at a height of 281.6 m (LAT); or 50 WTGs at a height of 267.6 m (LAT).

- 15.10.22 The effects assessed in respect of the 39 WTGs at a height of 309.6 m in sections 15.12, 15.13 and 15.15, relate principally to the introduction of a large scale offshore wind farm in an undeveloped seascape and this is why, in respect of most landscape and visual receptors, the effects are assessed as significant. This is also why the occurrence of significant effects will be the same for the other two layouts – because essentially, they will also introduce a large-scale offshore wind farm into an undeveloped seascape and because the differences in terms of the number and size of the WTGs are marginal.
- 15.10.23 All three layouts occupy the same extent of the array area so there will be no notable change in the horizontal extent of the three layouts, which is one of the key factors in assessing effects and cumulative effects in an undeveloped seascape. The differences will be the number of turbines and the size of the turbines. The 39 WTG layout is 6 WTGs fewer than the 45 WTG layout and 11 WTGs fewer than the 50 WTG layout, such that it will be less dense but with differences not being readily apparent owing to the distribution of these WTGs spread over a 59km² array area.
- 15.10.24 In terms of the differences in size, the 39 WTG layout is 28 m taller than the 45 WTG layout and 42 m taller than the 50 WTG layout assessed – differences which may be discernible especially when considering the larger rotors rather than just the overall larger height.
- 15.10.25 While these differences have led to the 39 WTG layout being identified as the MDO for the purposes of the SLVIA, the above analysis also highlights how the differences are marginal and that all three layouts will essentially lead to the same or a slightly lesser effect.

Table 4 Design Options Assessed

Maximum design option	Alternative design options	Justification
Construction		
Impact 1: Presence and activity of construction vessels		
<p>Construction vessels will comprise of installation vessels and smaller support vessels. Installation vessels include those for foundation, WTG and OSP installation and cable lay vessels. The foundation, WTG and OSP installation vessels will include cranes, which when fully extended will be 220m in height.</p> <p>Up to three large installation vessels and associated support craft operating simultaneously with a total of 66 vessels on site at any time</p> <p>Use of helicopter for crew transfer to 3 installation vessels, with 2 flights occurring to each vessel every two weeks.</p> <p>Construction taking place over 30 months.</p>	<p>Construction vessels will comprise of installation vessels and smaller support vessels. Installation vessels include those for foundation, WTG and OSP installation and cable lay vessels. The foundation, WTG and OSP installation vessels will include cranes, which when fully extended will be 200m in height.</p> <p>Up to three large installation vessels and associated support craft operating simultaneously with a total of 51 vessels on site at any time;</p> <p>All crew transfers undertaken by vessel.</p> <p>Construction taking place over 18 months.</p>	<p>The maximum design option represents the larger number of project vessels and helicopters that may be visible on site at any one time. These will have a greater influence during the day owing to the presence and influence of the greater number of vessels on views of the open seascape and during the night owing to the presence and influence of the greater number of lights on the vessels.</p>
Impact 2: Presence of emerging Offshore Infrastructure		
<p>Option C: 39 WTGs</p> <p>Sequential installation of WTGs at a height of 309.6 m LAT.</p> <p>1 x Offshore Substation Platform (OSP)</p> <p>Construction period: 30 months</p> <p>The closest structures (WTG) located a minimum distance of approximately 9 km from the closest mainland coastal edge.</p>	<p>Option A: 50 WTGs</p> <p>Sequential installation with a blade tip height of 267.6 mLAT</p> <p>Option B: 45 WTGs</p> <p>or</p> <p>Sequential installation with a blade tip height of 281.6 mLAT</p> <p>1 x OSP</p> <p>Construction period: 18 months</p> <p>The closest structures (WTG) located a minimum distance of approximately 9 km from the closest mainland coastal edge.</p>	
Impact 3: Presence of lighting on construction vessels		
<p>16 vessels present on site will display navigation lights and work lighting during hours of darkness during 30 month construction period.</p>	<p>8 - 10 vessels will display navigation lights and work lighting during hours of darkness during 18 month construction period.</p>	<p>The maximum design option captures the larger number of vessels displaying lights over a longer period of time.</p>
Operation and Maintenance		
Impact 4: Presence of Offshore Infrastructure		
<p>Option C: 39 WTGs</p> <p>Blade tip height of 309.6 m LAT;</p> <p>1 x OSP</p> <p>The closest structures (WTG) located a minimum distance of approximately 9 km from the closest mainland coastal edge.</p> <p>Operational lifetime: 35 years</p>	<p>Option A: 50 WTGs</p> <p>Blade tip height of 267.6 mLAT</p> <p>or</p> <p>Option B: 45 WTGs</p> <p>Blade tip height of 281.6 mLAT</p> <p>1 x OSP</p> <p>The closest structures (WTGs) located a minimum distance of approximately 9 km from the closest mainland coastal edge.</p> <p>Operational lifetime: 35 years</p>	<p>Despite the smaller number of larger WTGs, they occupy a similar horizontal extent as the larger number of smaller WTGs and their larger size will be notable. The range comprising the other two layouts is also considered in the assessment.</p>

Maximum design option	Alternative design options	Justification
Impact 5: Presence and activity of operational vessels		
<p>Three daily CTV trips with the addition of up to 100 vessel trips to support scheduled routine and non-routine maintenance per year.</p> <p>Peak activities may occur 2 times in any year and last for a duration of 8 weeks.</p> <p>Outside of peak times a single Service Operational Vessel (SOV) and 2 crew transfer vessels will be operational in the field.</p> <p>35 year operational life.</p>	<p>2 daily CTV trips with the addition of up to 75 vessels trips to support scheduled routine and non-routine maintenance</p> <p>Peak activities may occur 2 times in any year and last for a duration of 12 weeks.</p> <p>Outside of peak times 4 crew transfer vessels will be operational in the field at any one time. No SOV present.</p> <p>35 year operational life.</p>	<p>The maximum design option represents the larger number of project vessels that may be visible on site at any one time.</p>
Impact 6: Presence of aviation and navigation lighting on Offshore Infrastructure		
<p>Option C: Lighting of 39 WTGs at a height of 309.6 m LAT. Lighting will comprise aviation warning lights on all peripheral WTGs in the array area and navigational lights at platform level on significant peripheral structures, the latter no greater than 3nm apart.</p>	<p>Option B: Lighting of 45 WTGs with a blade tip height of 281.6 m LAT or Option A: 50 WTGs with a blade tip height of 267.6 m LAT . Lighting will comprise aviation warning lights on all peripheral WTGs in the array area and navigational lights at platform level on significant peripheral structures, the latter no greater than 3nm apart.</p>	<p>Despite the smaller number of larger WTGs, they occupy a similar horizontal extent as the larger number of smaller WTGs and therefore the associated layout includes 3 fewer peripheral WTGs than the alternative layouts, however the aviation lighting will be at a greater height above LAT and therefore visible over a greater distance.</p>
Decommissioning		
Impact 7: Presence and activity of decommissioning vessels / plant		
<p>Up to three large installation vessels and associated support craft operating simultaneously with a total of 51 vessels on site at any time</p> <p>Up to 813 round trips to port from decommissioning vessels and an additional 1,825 round trips from small vessels such as CTVs during decommissioning</p> <p>Use of helicopter for crew transfer to 3 installation vessels, with 2 flights occurring to each vessel every two weeks.</p> <p>Decommissioning taking place over 36 months.</p>	<p>Up to three large installation vessels and associated support craft operating simultaneously with a total of 51 vessels on site at any time;</p> <p>Up to 774 round trips to port from decommissioning vessels and an additional 538 round trips from small vessels such as CTVs during decommissioning</p> <p>All crew transfers undertaken by vessel.</p> <p>Decommissioning taking place over 24 months.</p>	<p>The maximum design option represents the larger number of project vessels and helicopters that may be visible on site at any one time.</p>
Impact 8: Presence of offshore infrastructure in the process of being decommissioned.		
<p>Option C: 39 WTGs</p> <p>Sequential removal of WTGs at a height of 309.6 m LAT.</p> <p>1 x Offshore Substation Platform (OSP)</p> <p>Decommissioning period: 36 months</p> <p>The closest structures (WTG) located a minimum distance of approximately 9 km from the closest mainland coastal edge.</p>	<p>Option A: 50 WTGs</p> <p>Sequential removal with a blade tip height of 267.6 mLAT</p> <p>Option B: 45 WTGs</p> <p>or</p> <p>Sequential removal with a blade tip height of 281.6 mLAT</p> <p>1 x OSP</p> <p>Decommissioning period: 24 months</p> <p>The closest structures (WTG) located a minimum distance of approximately 9 km from the closest mainland coastal edge.</p>	<p>Despite the smaller number of larger WTGs, they occupy a similar horizontal extent as the larger number of smaller WTGs and their larger size will be notable. The range comprising the other two layouts is also considered in the assessment.</p>
Impact 9: Presence of lighting on decommissioning vessels / plant		
<p>16 vessels will display navigation lights and work lighting during hours of darkness during 36 month decommissioning period.</p>	<p>8 - 10 vessels will display navigation lights and work lighting during hours of darkness during 24 month decommissioning period.</p>	<p>The maximum design option captures the larger number of vessels displaying lights over a longer period of time.</p>

15.11 Project Design Features and Avoidance and Preventative Measures

15.11.1 As outlined within the Methodology Chapter and in accordance with the EPA Guidelines (2022), this EIAR describes the following:

- ▲ Project Design Features: These are features of the Dublin Array project that were selected as part of the iterative design process, which are demonstrated to avoid and prevent significant adverse effects on the environment in relation to SLVIA.
- ▲ Other Avoidance and Preventative Measures: These are measures that were identified throughout the early development phase of the Dublin Array project, also to avoid and prevent likely significant effects, which go beyond design features. These measures were incorporated in as constituent elements of the project, they are referenced in the project description chapter of this EIAR and they form part of the project for which development consent is being sought. These measures are distinct from design features and are found within our suite of management plans.
- ▲ Additional Mitigation: These are measures that were introduced to the Dublin Array project after a likely significant effect was identified during the EIA assessment process. These measures either mitigate against the identified significant adverse effect or reduce the significance of the residual effect on the environment. The assessment of impacts is presented in Sections 15.12, 15.13 and 15.14 of this EIAR chapter.

15.11.2 All measures are secured within Volume 8, Chapter 2: Schedule of Commitments.

15.11.3 Project Design Features and Avoidance and Preventative Measures relevant to the SLVIA relates to site selection and the iterative design of the layout. The offshore WTGs of Dublin Array will be located a minimum distance of approximately 9km off the eastern coast of County Dublin and County Wicklow. The location has been largely determined by the presence of sand banks and shallow waters in this location which present a major technical advantage in terms of the construction of the offshore infrastructure, as set out in Volume 2, Chapter 5 Consideration of Alternatives.

15.11.4 There is very limited opportunity to mitigate landscape and visual effects out with standard mitigation measures undertaken in the iterative design process. There is, therefore, no additional mitigation to be considered in the SLVIA.

15.11.5 Residual effects are those effects which remain after mitigation. The residual effects that the Dublin Array offshore infrastructure will have on seascape, landscape and visual receptors are assessed in sections 15.12, 15.13 and 15.15, presented below. These are categorised into effects on seascape and landscape character, effects on views and visual receptors, and cumulative effects, and are considered during the construction phase and operation and maintenance phase, with the effects of the decommissioning phase considered to be similar or less than the construction phase.

15.12 Environmental Assessment: Construction phase

15.12.1 The assessment firstly considers the potential impact of the Dublin Array offshore infrastructure during the construction phase. Table 4 in section 15.10 sets out the maximum design parameters of the project description including for the construction phase. In respect of the Dublin Array offshore infrastructure, an assessment of their potential impact on seascape, landscape and visual receptors during the construction phase is summarised below and presented in detail in this section.

Potential impacts during construction

15.12.2 The Dublin Array offshore infrastructure will be located in the vicinity of the Kish and Bray Banks. The Kish and Bray Banks are located, approximately 10km off the east coast, immediately south-east of Dublin city and off the coast of counties Dublin and Wicklow. The location of the array area is shown in Figure 3.15.2 in the SLVIA GIS Figures Appendix. The offshore infrastructure will be located within an area of approximately 59km², in water depths ranging from 15 m to 40 m above the lowest astronomical tide (LAT).

15.12.3 Planning permission is being sought for between 39 number and 50 number (No.) WTGs and supporting tower structures depending on the model of turbine selected during the procurement process. The maximum blade tip height proposed is 309.6 m (LAT). The layouts presenting the 50 WTG layout (Option A), 45 WTG Layout (Option B) and 39 WTG layout (Option C) are included in the drawings listed below which have been submitted with the planning application (Part 2 Planning Drawings);

- 005059368-08 Site Layout Plans – Offshore Option A (236RD) (Sheet 1 of 4);
- 005059368-08 Site Layout Plans – Offshore Option B (250RD) (Sheet 2 of 4)
- 005059368-08 Site Layout Plans – Offshore Option C (278RD) (Sheet 3 of 4).

15.12.4 To provide a robust assessment of the proposed development, three different design configurations have been assessed reflecting the variation in turbine numbers and rotor diameters under consideration and include

- ▲ Option A: 50 WTGs at a height of 267.6 m (LAT) to blade tip;
- ▲ Option B: 45 WTGs at a height of 281.6 m (LAT) to blade tip; and
- ▲ Option C: 39 WTGs at a height of 309.6 m (LAT) to blade tip.

15.12.5 The offshore infrastructure will also include an OSP.

15.12.6 The impact of the offshore infrastructure during the construction phase will relate principally to the following features of the construction process:

- ▲ The effect on seascape / landscape character and visual amenity owing to the presence and activity of the construction vessels.

- ▲ The effect on seascape / landscape character and visual amenity owing to the presence of the emerging offshore infrastructure, comprising offshore WTGs and OSP.
- ▲ The effect on seascape / landscape character and visual amenity owing to use of artificial lighting to enable construction works during the hours of darkness, taking into account baseline lighting from sea-borne vessels, lighthouses and coastal developments.

15.12.7 The duration of a maximum 30 month period for the construction of all Dublin Array offshore infrastructure.

15.12.8 In respect of the potential impacts of the construction phase of the Dublin Array offshore infrastructure, set out below are the detailed assessments for each seascape and landscape receptor, and each visual receptor and principal visual receptor.

15.12.9 In summary, the construction of the Dublin Array offshore infrastructure will give rise to significant effects across both of the seascape character areas assessed, with RSCA 14: Irish Seas Sandbanks and Broad Bays wholly affected and RSCA 15: Dublin Bay only partly affected, owing to the screening effect of intervening landform and the baseline influence from industrial and urban development in Dublin Bay.

15.12.10 In respect of landscape character, the assessment found that significant effects will arise during the construction phase in parts of the following six of the eight LCAs assessed.

- ▲ Wicklow Coastal Area LCA – northern part;
- ▲ Wicklow: Corridor Area East LCA – localised east facing slopes;
- ▲ Wicklow: The Northern Hills LCA - east facing slopes of the coastal hills to the north, west and south of Delgany, and the rising landform to the west of Kilcoole and south-west of Kilpedder;
- ▲ Wicklow: Glencree / Glencullen LCA – localised east facing slopes of the hills;
- ▲ Dún Laoghaire: Shanganagh LCA – along coastal edge extending inland where open and/or elevated areas occur; and
- ▲ Fingal: Coastal Howth Head LCA – southern and eastern parts.

15.12.11 These significant effects will extend out to a radius of approximately 12km to the west, 15km to the north-west, and 18km to the south-east, and will relate principally to the close association between the coastal headlands, hills and bays to the seascape where the construction of the Dublin Array offshore infrastructure will occur. The effect of the Dublin Array offshore infrastructure on all other LCAs during the construction phases will be not significant.

15.12.12 The Dublin Array offshore infrastructure would also have a significant effect on the corresponding parts of the following designated landscapes;

- ▲ Wicklow Coast AONB;
- ▲ Wicklow Northern Hills AONB; and

▲ Howth Special Amenity Area / High Amenity Zone.

15.12.13 In respect of landscape designations, there will be a significant effect on the entire of the Wicklow Coast AONB, and on parts of the Northern Hills AONB and the Howth SAAO / HAZ, chiefly in relation to the proximity of these designated landscapes to the Dublin Array offshore infrastructure construction works, and the strong association between these designated landscapes and the adjacent seascape. The effect on the Wicklow Mountains NP and AONB will be not significant. This finding relates to the greater separation between these designated landscapes and offshore construction works, the weaker association between these designated landscapes and the east coast seascape, the stronger association with the surrounding uplands, and the limited visibility across the NP and AONB as a whole. The Wicklow Mountains are principally defined by the intrinsic character of the immediate and surrounding upland landscapes, albeit with the east coast seascape presenting an important aspect of the wider context.

15.12.14 In respect of viewpoints and visual receptors, there will be a significant effect on 21 of the 26 representative viewpoints, and 16 of the 20 principal visual receptors, although only one of the PVRs affected wholly with the remaining 15 affected only partly. This finding indicates that visual effects will extend out to approximately 21km from the closest edge of the Dublin Array offshore infrastructure construction. The majority of the significant effects will arise from the combination of the medium-high or medium sensitivity of walkers, residents and road-users along the coast, with the medium-high or high magnitude of change that will result from the introduction of construction works into a previously undeveloped seascape. The seaward outlook forms the principal view for visual receptors along this east coast and the introduction of the offshore construction works will redefine the character of many of the views experienced by residents, road and rail-users, walkers and other people spending time on this eastern coast.

Potential construction impacts on seascape / landscape character

15.12.15 The detailed assessment for each seascape and landscape receptor in respect of the construction phase of the Dublin Array offshore infrastructure is presented in this section 15.12 - 15.14. The baseline description and assessment of sensitivity for each seascape and landscape receptor is presented in section 15.7, the detailed assessment in respect of the operational phase is presented in section 15.13, and the cumulative assessment presented in section 15.15.

Regional Seascape Character Areas

RSCA 14: Irish Sea Sandbanks and Broad Bays

15.12.16 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be Medium-high or Medium. The ZTVs in Figures 3.15.12a and 3.15.12b (SLVIA GIS Figures Appendix) show theoretical visibility to be practically continuous along this coastline and the adjacent seascape, the openness of which means that actual visibility will be broadly similar throughout, apart from where settlements along the coast reduce the inland extent of visibility.

15.12.17 The construction of the offshore infrastructure will be seen at a minimum distance of 9km from the northern section of this RSCA, between Killiney and Greystones, and also set directly eastwards to match the principal orientation of the coastline. The influence on the RSCA will be derived from the presence and activity associated with the construction vessels, the emergence of the WTGs and OSP, and the use of artificial lighting to enable construction during the hours of darkness. These components will appear at variance with the baseline character of the open and undeveloped seascape and the magnitude of change will be **Medium-high**, prevented from being rated high owing to the separation distance and the existing influence of development along this coastline.

15.12.18 In the southern section of the RSCA, between Greystones and Wicklow, the minimum separation distance increases from 9km to 22km and the close association gradually weakens as the array area is situated to the north-east and the coastline is orientated to the east. While the array area will not occupy the majority of the seaward view, as it will from the northern section, it will, nonetheless, occupy a notable extent, such that the construction works, described above, will have a notable influence on coastal character, especially in the context of this largely undeveloped section of coastline. Here, the magnitude of change will be **Medium**.

15.12.19 The effect of the Dublin Array offshore infrastructure MDO on RSCA 14 during the construction phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the RSCA and the **Medium-high** or **Medium** magnitude of change. The effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.20 The effect of the ADOs on RSCA 14 during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

RSCA 15: Dublin Bay

15.12.21 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high**, **Medium**, **Medium-low** or **No change**.

15.12.22 The ZTV in Figure 3.15.12a (SLVIA GIS Figures Appendix) shows theoretical visibility to be continuous around the bay. The density of seafront development around the bay, combined with the absence of rising landform in the hinterland, means that visibility will be largely contained within the immediate seafront area. The full extent of the construction works will not, however, be visible from all sections of this coastline, owing to a combination of the location of the array area to the south-east of Dublin Bay and the screening effect of the intervening headland at Dalkey, especially for the section between Dalkey and Sandymount. Furthermore, the large-scale developments at Dublin Port will reduce the full extent of visibility along parts of the city centre and Clontarf coastline and this will reduce the magnitude of change to **Medium-low**. From the northern section of the RSCA, the coastline is orientated south-east back towards the array area.

15.12.23 The key components that will have an influence on coastal character, include the construction of the offshore WTGs, OSP, and the presence and activity of the construction vessels and the use of artificial lighting during the hours of darkness. The magnitude of change on most of this RSCA will be **Medium**. Those factors which will moderate the change include the minimum separation distance of 10km to 20km between the viewpoint and the offshore infrastructure, the presence of almost continuous development along this coast, the presence of large-scale industrial development at Dublin Port and the traffic of ferries and freight vessels passing in and out of the harbour. Those factors which will enhance the change include the introduction of emerging structures into a seascape area where previously there were no permanent structures, the notable horizontal and vertical extent of the emerging structures and the additional movement and activity of construction vessels.

15.12.24 In respect of Howth Head, the ZTV in Figure 3.15.12a (SLVIA GIS Figures Appendix) shows theoretical visibility to be continuous around the southern and eastern coastlines, while there will be no theoretical visibility around the north-eastern and northern coastlines. The Howth peninsula is situated a minimum distance of approximately 10km to the north-west of the Dublin Array offshore infrastructure. The upland landform at the centre of the peninsula effectively screens the northern coastline from visibility of the array area and, therefore, there will be **No change**.

15.12.25 On the southern and eastern coastline of Howth Head, the magnitude of change will be **Medium-high**. The baseline context of an undeveloped seascape will be altered by the introduction of emerging offshore infrastructure, including large offshore WTGs and OSP, as well as the presence and activity of the construction vessels and their use of artificial lighting during working hours in darkness. The openness of the southern coastline and its alignment broadly in the direction of the array area means the construction works will form a readily visible and notable change. While the orientation of the eastern coastline is more oblique to the location of the array area, the elevation of the cliffs means that there is still a strong association with the wider seascape.

- 15.12.26 The effect of Dublin Array offshore infrastructure on the Dublin Bay part of this RSCA during the construction phase will be significant at a **Moderate** level. This will result from the combination of the **Medium** sensitivity of the RSCA and the **Medium** magnitude of change. The effect on the sections of this RSCA around Dublin Port and Clontarf will be not significant at a **Moderate-minor** level, owing to the influence from existing large-scale developments. The effect will be adverse, short-term and reversible.
- 15.12.27 The effect of the Dublin Array offshore infrastructure MDO on the southern and eastern parts of Howth Head during the construction phase will be significant at a **Major-moderate** level. This will result from the combination of the **Medium-high** sensitivity of the RSCA and the **Medium-high** magnitude of change. There will be **No effect** on the northern parts of this RSCA during the construction phase as there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.28 The effect of the ADOs on RSCA 15 during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Landscape Character Areas

Wicklow: Coastal Area LCA

15.12.29 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** in the northern most area and **Medium** or **Medium-low** in the central area and **Low** or **No change** in the southern part.

15.12.30 The ZTV in Figures 3.15.13b (SLVIA GIS Figures Appendix) shows theoretical visibility to be almost continuous across the two northern parts of the LCA, and furthermore, it shows high levels of visibility in which 36 to 39 WTGs are visible. Within the southern part of the LCA nearly the entire area shows no theoretical visibility due to the screening provided by Wicklow Head, however there are small patches of theoretical visibility on the summits and north-facing upper slopes at Ballynacarrig, Ardanary and the southern part of Wicklow Head. Actual visibility along the coast, will largely correlate with theoretical visibility, owing to the openness of this landscape, and typically visibility will dissipate within the hinterland, owing to the increasing enclosure of the tree cover with distance from the coast.

15.12.31 The construction works that will have an indirect influence on the character of this LCA include the emergence of the offshore WTGs and OSP, as well as the presence and activity of the construction vessels and their use of artificial lighting during working in hours of darkness.

15.12.32 In those parts of the LCA to the north and south of Greystones, the magnitude of change will be **Medium-high** along the coast and **Medium** further inland. This reflects the location of the construction works at a minimum distance of approximately 10km from the LCA and the variance to the baseline character of an undeveloped seascape that the construction works will give rise to. The magnitude of change is prevented from being rated high owing to the separation distance and the existing presence of development along this coastline.

15.12.33 The magnitude of change along the coast to the south of Kilcoole will be **Medium**. This relates to a combination of factors including an increase in the minimum separation distance of approximately 10 to 20km, the oblique angle at which the array area sits relative to the orientation of the LCA and, as a result, the smaller proportion of the seaward aspect that the array area will occupy. The presence of tree cover inland will further reduce visibility and therefore also the influence of the construction works, such that the magnitude of change will reduce to **Medium-low**.

- 15.12.34 The magnitude of change within the southern part of the LCA south of Wicklow will be **Low** or **No change** owing to the very limited or no visibility of the construction works due to the screening provided by Wicklow Head. Where visibility does occur the moderating factors include the minimum separation distance of 20 to 30km, the oblique angle at which the array area sits relative to the orientation of the LCA and, as a result, the smaller proportion of the seaward aspect that the array area will occupy.
- 15.12.35 The effect of the Dublin Array offshore infrastructure MDO on the northern and central parts of this LCA during the construction phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-high, Medium** or **Medium-low** magnitude of change. The effect of the Dublin Array offshore infrastructure on the southern part of this LCA during the construction phase will be not significant at a **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Low** magnitude of change, or **No effect** where no change occurs. The effects will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.36 The effect of the ADOs on the Coastal Area LCA during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: Corridor Area East LCA

- 15.12.37 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium** in those localised parts where relatively full actual visibility arises, **Medium-low** where limited actual visibility arises and with **No change** where there is no actual visibility.
- 15.12.38 The ZTV in Figure 3.15.13b (SLVIA GIS Figures Appendix) shows that theoretical visibility is largely continuous and typically high in levels, albeit with patches of no visibility where low coastal hills create screening of seaward views north of Wicklow. Actual visibility will be greatly reduced by the presence of coniferous forestry and deciduous woodland as well as the tree cover which provides enclosure across the farmed landscape. South of Wicklow theoretical visibility reduces to no visibility with one interlinked patch of higher visibility associated with a ridge of inland hills extending northwest from Ballynacarrig.
- 15.12.39 The most visible aspect of the construction works will be the emergence of the offshore WTGs and associated plant, as these will be the largest and most prominent features. Where fuller visibility occurs, the presence and activity of the construction vessels and associated lighting, as well as the emergence of the OSP will also have an indirect influence on the LCA.

- 15.12.40 Those localised parts which will undergo a **Medium** magnitude of change as a result of the construction works include the east facing slopes of the coastal hills to the north, west and south of Delgany, and the rising landform to the west of Kilcoole and south-west of Kilpedder. The assessment takes into account the minimum separation distance of approximately 11 to 16km of these areas and also the baseline influence of the nearby settlements and N11.
- 15.12.41 A **Medium-low** or **Low** magnitude of change will occur in those localised areas of actual visibility from 16km out to 28km, owing not only to the greater separation distance from the construction works but also the greater influence from the surrounding landscapes which form the defining context to this LCA.
- 15.12.42 The effect of the Dublin Array offshore infrastructure MDO during the construction phase will be significant at a **Moderate** level, on those localised parts of the LCA within 11 to 16km from where actual visibility occurs. This will result from the combination of the **Medium** sensitivity of the LCA and the **Medium** magnitude of change. In those parts of the LCA beyond 16km from where actual visibility occurs, the effect will be **Not significant** at a **Moderate-minor** level. This will result from the combination of the **Medium** sensitivity of the LCA and the **Medium-low** magnitude of change. Where there is **No change**, there will be **No effect**. The effects will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.43 The effect of the ADOs on the Corridor Area East LCA during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: The Northern Hills LCA

- 15.12.44 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** or **Medium** in those parts where actual visibility occurs and with **No change** in all remaining parts where there is no visibility.
- 15.12.45 The ZTV in Figure 3.15.13b (SLVIA GIS Figures Appendix) shows that theoretical visibility is patchy across this LCA. The hills are broadly oval shaped with the longer eastern flank facing towards the southern extent of the array area. The ZTV shows visibility extending across these east facing slopes and onto the summits, but with no visibility on the west facing slopes owing to the screening effect of the hills themselves. The elevated nature of these hills means that they will be readily exposed to the indirect influences of the construction works, albeit seen as a component part of a much wider context.

- 15.12.46 The key features will be the emerging offshore WTGs and OSP, along with the presence and activity of the construction vessels and associated plant, including the use of artificial lighting when working in the hours of darkness. The **Medium-high** or **Medium** magnitude of change on landscape character will arise owing to the location of the construction works at a minimum distance of between approximately 10 and 15km, and the alteration of a seascape previously without development, into a seascape with development.
- 15.12.47 The magnitude of change is prevented from being rated high owing to the existing presence of development along the coastal edge and the much wider context which influences the character of this LCA. In those areas screened by the intervening landform, there will be no visibility of the construction works and, therefore, there will be **No change**.
- 15.12.48 The effect of the Dublin Array offshore infrastructure MDO on this LCA during the construction phase will be significant at a **Major-moderate** or **Moderate** level across the east facing slopes and summits of the hills. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-high** or **Medium** magnitude of change. In those parts of the LCA where there will be no visibility, there will be **No change** and **No effect**. The effect will be adverse, short-term and reversible.

Alternative Design Scenarios

- 15.12.49 The effect of the ADOs on The Northern Hills LCA during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: Glencree / Glencullen LCA

- 15.12.50 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-Low** in those localised parts where visibility occurs, **Low** where visibility is limited and with **No change** in those parts where there is no visibility.
- 15.12.51 The ZTV in Figure 3.15.13a (SLVIA GIS Figures Appendix) shows theoretical visibility to be concentrated in the eastern part of the LCA with limited visibility occurring in the remaining parts. The patch of visibility covers the low hills which surround the village of Enniskerry. While commercial forestry and other tree cover will notably reduce the extent of actual visibility in this area, there are also open upland areas of farmland from where the construction works will be visible, most notably on the north-western side of the village.

- 15.12.52 At a minimum separation distance of approximately 14 to 19km, the magnitude of change will be **Medium-low** across the east facing slopes of these hills, from where the emergence of the offshore WTGs and other infrastructure will be visible, alongside the construction vessels, their associated plant and construction lighting during hours of darkness. The separation distance will mean that the construction works will occupy only a small proportion of the wider context to this LCA but will, nonetheless, appear at variance with both the rural character of the LCA and the undeveloped character of the seascape in which the array area is located.
- 15.12.53 Further west, into Glencree, there is mostly no visibility with a few small patches of low-level visibility, such that there will either be **No change** or a **Low** magnitude of change.
- 15.12.54 The effect of the Dublin Array offshore infrastructure MDO on this LCA during the construction phase will be significant at a **Moderate** level in those localised parts where visibility will occur. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-low** magnitude of change. In the remaining parts there will either be **No effect** owing to no visibility, or a not significant effect at a **Moderate-minor** level owing to limited visibility and a **Low** magnitude of change. The effects will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.55 The effect of the ADOs on the Glencree / Glencullen LCA during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: North East Mountain Lowlands LCA

- 15.12.56 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-low** or **Low** in localised parts where actual visibility will occur and with **No change** where no visibility occurs.
- 15.12.57 The ZTV in Figure 3.15.13b (SLVIA GIS Figures Appendix) shows the very limited extent of theoretical visibility in respect of this extensive LCA. This is due to the LCA being largely contained in the valley of the Vartry River, with the band of upland hills to the east forming enclosure and screening the eastern coast. In those large parts of the LCA where there will be no visibility, there will be **No change**.
- 15.12.58 While patches of theoretical visibility occur along the eastern hills included in the LCA, extensive forestry will reduce the extents of theoretical visibility. Where localised patches of actual visibility occur over the east facing slopes, the construction works will be visible from minimum distances of approximately 16 to 19km. The magnitude of change will be **Medium-low** reflecting the notable separation distance which will mean that the construction works will be seen as a relatively distant feature and will occupy only a small proportion of the wider charactering context.

15.12.59 The key features of the construction works that will be visible from this range include the emergence of the offshore WTGs, the presence and activity of the construction vessels and associated plant and the use of artificial lighting during hours of darkness. While other patches of visibility occur on the upper western slopes of the LCA, to the west of Great Sugar Loaf Mountain and north-east of Roundwood, these show low levels of visibility indicating that the full extent of the construction works will be largely screened by the surrounding hills and as they will be located from 16 to 23km away, will give rise to either **Medium-low** or **Low** magnitudes of change.

15.12.60 The effect of the Dublin Array offshore infrastructure MDO on this LCA during the construction phase will be not significant at a **Moderate** or **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-low** or **Low** magnitude of change in those localised parts where actual visibility will occur. Across the majority of the LCA there will be no visibility, and, therefore, there will be **No change** and **No effect**. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.61 The effect of the ADOs on the North East Mountain Lowlands LCA during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: Mountain Uplands LCA

15.12.62 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-low** or **Low**, where actual visibility occurs, and with **No change**, where no visibility occurs.

15.12.63 The ZTV in Figure 3.15.13b (SLVIA GIS Figures Appendix) shows that the majority of this LCA will not be affected by visibility of the Dublin Array offshore infrastructure, largely owing to the screening effect of other hills on the eastern side of the Mountain Uplands. There is, however, a localised area in the north-east of the LCA, where theoretical visibility is shown to occur and includes Djouce Mountain (725 m AOD), War Hill (686 m AOD), Torduff (642 m AOD) and Kippure (757 m AOD). The ZTV shows theoretical visibility to extend across the middle to upper, east-facing slopes of these hills.

15.12.64 The magnitude of change on the character of this north-eastern part of the LCA will be **Medium-low** for the following reasons. Firstly, the minimum separation distance will be between 18 and 27km such that the construction works will appear as a relatively distant feature. Secondly, the construction works will occupy only a small proportion of a much wider context, in which the surrounding uplands will provide the characterising feature. Thirdly, development extends along the east coast, northwards towards the city of Dublin making development an established part of the baseline context.

- 15.12.65 The construction works will, nonetheless, have some indirect influence on the character of the LCA owing to the presence and activity of the construction vessels, the emergence of the offshore infrastructure and the use of artificial lighting during hours of darkness, in a previously undeveloped seascape.
- 15.12.66 Actual visibility across other parts of the LCA will be limited to the tops and upper slopes of the highest hills and their more distant position relative to the array area means the magnitude of change will be reduced to **Low**.
- 15.12.67 The effect of the Dublin Array offshore infrastructure MDO on this LCA during the construction phase will be not significant at a **Moderate** or **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-low** or **Low** magnitude of change. Where there will be no visibility, there will be **No change** and **No effect**. The effects will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.68 The effect of the ADOs on the Mountain Uplands LCA during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Dún Laoghaire: Shanganagh LCA

- 15.12.69 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** or **Medium**, with **No change** occurring where there will be no visibility.
- 15.12.70 The ZTVs in Figures 3.15.13a and 3.15.13b (SLVIA GIS Figures Appendix) show theoretical visibility to be almost continuous across this LCA. The openness of the coastline means that theoretical visibility will match actual visibility and here the magnitude of change will be Medium-high.
- 15.12.71 During the construction phase, the emergence of the offshore WTGs and OSP will be readily visible, along with the presence and activity of the construction vessels and their associated plant. There will also be an effect when the hours of work coincide with the hours of darkness and artificial light is required for the construction works. These components will be seen at a minimum separation distance of 10km and in direct alignment with the eastern orientation of the coastline.
- 15.12.72 Further inland, while the extent of mature tree cover will reduce the extent to which the construction works are readily visible, they will still have a notable effect on character, especially in the winter months when the screening effect of the tree cover is reduced. The magnitude of change will be **Medium** in those areas where visibility occurs and **No change** where there is no visibility.

15.12.73 The effect of the Dublin Array offshore infrastructure MDO on this LCA during the construction phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-high** or **Medium** magnitude of change. Where there will be no visibility, there will be **No change** and **No effect**. The effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.74 The effect of the ADOs on the Shanganagh LCA during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Fingal: Coastal Howth Head LCA

15.12.75 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** in those parts of the LCA where actual visibility occurs and with **No change** in those parts where there is no visibility.

15.12.76 The ZTV in Figure 3.15.13a (SLVIA GIS Figures Appendix) shows the limited extent of theoretical visibility across this LCA, with patches shown to be concentrated around the southern and eastern coasts of the peninsula and over the southern slopes of the Ben of Howth. Across the remaining majority of the peninsula there will be no visibility and therefore **No change** in these areas.

15.12.77 From the southern and eastern coasts, the construction works will have an indirect effect on landscape character owing to their location in an area of previously undeveloped seascape. The key components will be the emergence of the offshore WTGs and OSP, along with the presence and activity of the construction vessels and their associated plant. While effects will mostly occur during daylight, where working hours coincide with hours of darkness, artificial lighting will be used, and this will add to the overall effect. The magnitude of change will be **Medium-high**. Despite a separation distance of 9 to 12km, the large size of the emerging offshore WTGs, the associated construction vessels and associated plant required for their construction, will form a notable feature at variance with the openness and simplicity of the seascape.

15.12.78 The effect of Dublin Array offshore infrastructure MDO on this LCA during the construction phase will be significant at a **Major-moderate** level across the southern and eastern parts of the LCA. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-high** magnitude of change. In the remaining parts there will be **No effect** as there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.79 The effect of the ADOs on the Coastal Howth Head LCA during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Landscape Designations

Wicklow Mountains National Park

15.12.80 The Wicklow Mountains National Park (WMNP) lies within the Mountain Upland LCA. As such the detailed assessment for this LCA, presented above, also applies to this NP. The magnitude of change of the MDO is assessed as **Medium-low** or **Low** where visibility occurs and with **No change** where there is no visibility.

15.12.81 The ZTV in Figure 3.15.14b (SLVIA GIS Figures Appendix) shows that the majority of WMNP will not be affected by visibility of the Dublin Array offshore infrastructure, largely owing to the screening effect of other hills on the eastern side of WMNP. There is, however, a localised area in the north-east of WMNP, where theoretical visibility is shown to occur and includes Djouce Mountain (725 m AOD), War Hill (686 m AOD), Torduff (642 m AOD) and Kippure (757 m AOD). The ZTV shows theoretical visibility to extend across the middle to upper, east-facing slopes of these hills.

15.12.82 The magnitude of change on the character of this north-eastern part of WMNP will be **Medium-low** for the following reasons. Firstly, the minimum separation distance will be between 18 and 27km such that the construction works will appear as a relatively distant feature. Secondly, the construction works will occupy only a small proportion of a much wider context, in which the surrounding uplands will provide the characterising feature. Thirdly, development already forms an intrinsic part of the baseline context, seen to extend along the east coast and in association with the city of Dublin set to the north.

15.12.83 The construction works will, nonetheless, have some indirect influence on the character of WMNP owing to the presence and activity of the construction vessels, the emergence of the offshore infrastructure and the use of artificial lighting during hours of darkness, in a previously undeveloped seascape.

15.12.84 Actual visibility across other parts of WMNP will be limited to the tops and upper slopes of the highest hills and their more distant position relative to the array area means the magnitude of change will be reduced to **Low**.

15.12.85 The effect of the Dublin Array offshore infrastructure MDO on the WMNP during the construction phase will be not significant at a **Moderate** or **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the WMNP and the **Medium-low** or **Low** magnitude of change. In those parts of the WMNP where there will be no visibility, there will be **No effect**. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.86 The effect of the ADOs on the WMNP during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow Mountains and Lakeshore AONB

15.12.87 The Wicklow Mountain Uplands AONB coincides with the Mountain Uplands LCA. As such, the detailed assessment for this LCA, presented above, also applies to this AONB. The magnitude of change of the MDO is assessed as **Medium-low** or **Low** where visibility occurs and with **No change** where there is no visibility.

15.12.88 The ZTV in Figure 3.15.14b (SLVIA GIS Figures Appendix) shows that the majority of WMNP will not be affected by visibility of the Dublin Array offshore infrastructure, largely owing to the screening effect of other hills on the eastern side of WMNP. There is, however, a localised area in the north-east of WMNP, where theoretical visibility is shown to occur and includes Djouce Mountain (725 m AOD), War Hill (686 m AOD), Torduff (642 m AOD) and Kippure (757 m AOD). The ZTV shows theoretical visibility to extend across the middle to upper, east-facing slopes of these hills.

15.12.89 The magnitude of change on the character of this north-eastern part of WMNP will be **Medium-low** for the following reasons. Firstly, the minimum separation distance will be between 18 and 27km such that the construction works will appear as a relatively distant feature. Secondly, the construction works will occupy only a small proportion of a much wider context, in which the surrounding uplands will provide the characterising feature. Thirdly, development already forms an intrinsic part of the baseline context, seen to extend along the east coast and in association with the city of Dublin set to the north.

15.12.90 The construction works will, nonetheless, have some indirect influence on the character of WMNP owing to the presence and activity of the construction vessels, the emergence of the offshore infrastructure and the use of artificial lighting during hours of darkness, in a previously undeveloped seascape.

15.12.91 Actual visibility across other parts of WMNP will be limited to the tops and upper slopes of the highest hills and their more distant position relative to the array area means the magnitude of change will be reduced to **Low**.

15.12.92 The effect of the Dublin Array offshore infrastructure MDO on this AONB during the construction phase will be not significant at a **Moderate** or **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the AONB and the **Medium-low** or **Low** magnitude of change. In those parts of the AONB where there will be no visibility, there will be **No effect**. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.93 The effect of the ADOs on this AONB during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow Coast AONB

15.12.94 The Wicklow Coast AONB coincides with the northern part of the Wicklow Coastal Area LCA. As such, the detailed assessment for this LCA, presented above, also applies to this AONB. The magnitude of change of the MDO is assessed as being medium high, medium or medium-low, depending on the proximity of the different parts of the AONB to the offshore infrastructure, the levels of visibility that occur and the other natural and human influences acting on the baseline character of the AONB.

15.12.95 The effect of the Dublin Array offshore infrastructure MDO on this AONB during the construction phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the AONB and the **Medium-high**, **Medium** or **Medium-low** magnitude of change. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.96 The effect of the ADOs on this AONB during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: The Northern Hills AONB

15.12.97 The Northern Hills AONB coincides with The Northern Hills LCA. As such, the detailed assessment for this LCA, presented above, also applies to this AONB. The magnitude of change of the MDO is assessed as **Medium-high** in those parts where visibility occurs and with **No change** where there is no visibility.

15.12.98 The effect of the Dublin Array offshore infrastructure MDO on this AONB during the construction phase will be significant at a **Major-moderate** or **Moderate** level across the east facing slopes and summits of the hills. This will result from the combination of the **Medium-high** sensitivity of the AONB and the **Medium-high** or **Medium** magnitude of change. In those parts of the AONB where there will be no visibility, there will be **No effect**. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.99 The effect of the ADOs on this AONB during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Howth Special Amenity Area Order / High Amenity Zone

15.12.100 The Howth Special Amenity Area Order lies within Coastal Howth Head LCA. As such, the detailed assessment for this LCA, presented above, also applies to this SSAO. The magnitude of change of the MDO is assessed as **Medium-high** along the southern and eastern coasts and across the southern slopes of the central upland area. Across the remainder of the SSAO there will be **No change** as there will be no visibility.

15.12.101 The effect of the Dublin Array offshore infrastructure MDO on this SAAO during the construction phase will be significant at a **Major-moderate** level across the southern and eastern parts of the SAAO. This will result from the combination of the **Medium-high** sensitivity of the SAAO and the **Medium-high** magnitude of change. In the remaining parts there will be **No effect** as there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.102 The effect of the ADOs on this SAAO during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Potential construction impacts on views and principal visual receptors

15.12.103 The detailed assessment for each view and principal visual receptor in respect of the construction phase of the Dublin Array offshore infrastructure is presented below. The baseline description and assessment of sensitivity for each receptor is presented in section 15.7 and the assessment in respect of the operational phase of the Dublin Array offshore infrastructure is presented in section 15.13. Photomontages of the representative viewpoints are presented in the SLVIA Visualisations Appendix.

Representative Viewpoints

Viewpoint 1: Scenic Car Park, Wicklow

15.12.104 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change of the MDO will be **Medium**. The main visual impacts relating to the construction phase will include the presence and activity of the construction vessels, the emergence of the offshore WTGs and OSP, and the use of construction lighting during the hours of darkness. At a minimum distance of 21.4km from this elevated viewpoint, all components of the offshore infrastructure construction will be readily visible and will be seen to occupy a substantial proportion of the seascape view. Despite the separation distance and the resultant moderate scale of the components, there will be a notable change in the character of this view owing to the introduction of development into a previously undeveloped and open seascape. The night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in the distance in what would otherwise have been a dark seascape beyond the lights of Wicklow Bay.

15.12.105 The effect of Dublin Array offshore infrastructure MDO on visual receptors at the Wicklow scenic car park during the construction phase will be significant at a **Major-moderate** level. This will result from the combination of the **High** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment covers the viewpoint and all other visual receptors in the town of Wicklow where open and elevated views of the Dublin Array offshore infrastructure will be experienced. The effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.106 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.52 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 2: Six Mile Point, Newcastle

15.12.107 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change of the MDO will be **Medium-high**. The main visual impacts relating to the construction phase will include the presence and activity of the construction vessels, the emergence of the offshore WTGs and OSP, and the use of construction lighting during the hours of darkness. At a minimum distance of 11.9km from this elevated viewpoint, all components of the offshore infrastructure construction will be readily visible and will be seen to occupy a substantial proportion of the seascape view. In a view largely characterised by the open seascape and in which there is no other large-scale developments visible, the construction of the Dublin Array offshore infrastructure will present a new focus which will redefine the view. The night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook.

15.12.108 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Six Mile Point during the construction phase will be significant at a **Major-moderate** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. This assessment covers the viewpoint and all other visual receptors along the coast between Wicklow and Greystones where open views of the Dublin Array offshore infrastructure will be experienced. The effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.109 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.53 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 3: N11 road north of Ashford

15.12.110 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change of the MDO will be **Medium**. From this short open and elevated section of the N11, the main visual impacts relating to the construction phase will include the presence and activity of the construction vessels with their tall cranes, the emergence of the offshore WTGs and OSP, and the use of construction lighting during the hours of darkness. At a minimum distance of 13.4km from this elevated viewpoint, all components of the Dublin Array offshore infrastructure construction will be visible beyond the landform that screens the foreshore and will be seen to occupy a substantial proportion of the distant seascape view. The night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark seascape beyond the lights of settled the shoreline.

15.12.111 Furthermore, the transitory nature of road-users, the high speeds at which they will be travelling, and the short duration of this open aspect all serve to further reduce the magnitude of change. For those stopping at the layby on the north-bound side of the road, their views will be of longer duration and the construction of Dublin Array offshore infrastructure will form a notable change to the view.

15.12.112 The effect of Dublin Array offshore infrastructure MDO on visual receptors at the N11 layby near Kilmullin during the construction phase will be significant at a **Moderate** level. This will result from the combination of the **Medium** sensitivity of the visual receptors and the **Medium** magnitude of change. This assessment covers only the localised area around the viewpoint from where views of the Dublin Array offshore infrastructure will be experienced. The effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.113 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.54 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 4: Greystones Harbour

15.12.114 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change of the MDO will be **High**. From this coastal edge, a minimum distance of 8.9km from the closest edge of the Dublin Array offshore infrastructure, all construction activities and components will be readily visible. This will include the presence and activity of the construction vessels, with their tall cranes, and the emergence of the offshore WTGs and OSP. The construction works will appear at variance with the baseline view on account of the presence of an emerging large scale and dynamic development within the sea, where previously there was no development. This will form a new focus that will affect the views of walkers, road-users and residents along the seafront. The night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook.

15.12.115 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Greystones Harbour during the construction phase will be significant at a **Major** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment covers all seafront receptors in the town of Greystones who experience open views across the sea. The effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.116 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.55 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 5: Sugar Loaf Mountain

15.12.117 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change of the MDO will be **Medium**. All construction activities and components will be readily visible including the emerging offshore WTGs and the construction vessels with their tall cranes, and emerging OSP. The minimum separation distance of 14.7km between the viewpoint and the closest edge of the Dublin Array offshore infrastructure, coupled with the expansive nature of the view, means that the construction of the offshore infrastructure will occupy a small horizontal and vertical extent of the overall panoramic view, but a large proportion of seascape albeit seen at a distance. The introduction of an emerging development into the seascape where previously there was no development, will form a notable change in the views of hill walkers. The night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark seascape beyond the lights along the coast.

15.12.118 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Sugar Loaf Mountain during the construction phase will be significant at a **Major-moderate** level. This will result from the combination of the **High** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment applies to walkers on Great Sugar Loaf Mountain and other similar range hills in this area from which open views to the coast are experienced by hill walkers. The effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.119 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.56 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 6: Bray Head walkway

15.12.120 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change of the MDO will be **High**. The close proximity of this path to the coast means that walkers will be readily exposed to the visual impacts associated with the construction vessels and emerging offshore infrastructure, including the construction of the large and dynamic offshore WTGs. The full extent of the offshore construction works will be readily visible at a minimum distance of 10.2km from the viewpoint. They will be seen to occupy a substantial proportion of the seascape and will appear at variance with this largely natural coastline, albeit with a railway line and path cut along its edge. The night-time lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook.

15.12.121 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Bray Head walkway during the construction phase will be significant at a **Major** level. This will result from the combination of the **High** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment applies to the full extent of the Bray to Greystones cliff walk. The effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.122 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.57 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 7: Bray Promenade

15.12.123 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change of the MDO will be **High**. From this coastal edge, a minimum distance of 11.0km from the closest edge of the Dublin Array offshore infrastructure, all construction activities and components will be readily visible. This will include the presence and activity of the construction vessels, with their tall cranes, and the emergence of the offshore WTGs and OSP. The construction works will appear at variance with the baseline view on account of the presence of an emerging large scale and dynamic development within the sea, where previously there was no development. This will form a new focus that will affect the views of walkers, visitors, road-users and residents along the seafront. The night-time lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook.

15.12.124 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Bray Promenade during the construction phase will be significant at a **Major** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment applies to the full extent of the Bray Promenade. The effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.125 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.58 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 8: Hill at Carrick Gollogan, near Shankill

- 15.12.126 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change of the MDO will be **Medium**. The construction works will be situated a minimum of distance of approximately 14.6km. The key features that will be visible from the hill-top viewpoint include the presence and activity of the construction vessels, with their tall cranes, and the emergence of the offshore WTGs and OSP. Over half of the array area will be obscured by coniferous forestry from this viewpoint.
- 15.12.127 The construction works will appear at variance with the baseline view on account of the presence of an emerging large scale and dynamic development within the sea, where previously there was no development. This will form a new focus that will affect the views of walkers, albeit only from the summit and other open aspects, with views from within the forest areas contained. The night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook.
- 15.12.128 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Carrick Gollogan during the construction phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment applies to the very few and localised open patches that occur across this wooded hill. The effect will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.129 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.59 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 9: Shankill Beach

- 15.12.130 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change of the MDO will be **High**. The views of those partaking in recreational activities, such as walking on the beach and in the park or playing golf or other sports, will be notably affected where open seaward views occur. With a minimum distance of 10.9km to the closest edge of the Dublin Array offshore infrastructure, all components of the offshore infrastructure construction will be readily visible and occupy a substantial portion of the seascape view. This will include the presence and activity of the construction vessels, with their tall cranes, and the emergence of the offshore WTGs and OSP. This will change the character of the views by introducing a large-scale offshore wind farm into an open and undeveloped seascape, which will appear at variance with the character of this natural coastline and extensive recreational space. The night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook.

15.12.131 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Shankill Beach during the construction phase will be significant at a **Major** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment applies to the coastal edge and more open parts of the inland area. The effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.132 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.60 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 10: Killiney Hill Obelisk

15.12.133 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change of the MDO will be **High**. Killiney hilltop presents walkers with a natural vantage point from which all of the construction works associated with the offshore infrastructure will be readily visible. Seen at a minimum distance of 11.0km to the closest edge of the array area, the key components will be the presence and activity of the construction vessels and the emerging offshore infrastructure, most notably the tall and dynamic offshore WTGs.

15.12.134 The high magnitude of change reflects the variation that the Dublin Array offshore infrastructure will present in respect to the baseline view, which is largely characterised by an undeveloped seascape and a lightly developed coastline. Night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook. The construction works will form a new focus that will detract from the scenic qualities of the view.

15.12.135 The effect of the Dublin Array offshore infrastructure MDO on visual receptors on Killiney Hill during the construction phase will be significant at a **Major** level. This will result from the combination of the **High** sensitivity of the visual receptors and view and the **High** magnitude of change. This assessment applies to the localised open parts of the hilltop.

Alternative Design Options

15.12.136 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.61 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 11: Vico Road seating area

- 15.12.137 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change of the MDO will be **High**. The orientation of this coastal area is south-east, which will be towards Dublin Array offshore infrastructure. This means that the construction works will form a prominent feature in the views of residents and walkers, and, to a lesser extent, road-users. The construction works will be seen at a minimum distance of approximately 10.5km from the viewpoint.
- 15.12.138 The visual impact will relate to the presence and activity of the construction vessels and in particular the tall cranes used in the construction of the emerging WTGs and OSP, and the use of construction lighting during the hours of darkness. These construction works will appear at variance with both the undeveloped nature of the seascape and the lightly developed nature of this coastline. The night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook.
- 15.12.139 The effect of Dublin Array offshore infrastructure MDO on visual receptors on Vico Road during the construction phase will be significant at a **Major** level for residents and walkers and at a **Major-moderate** level for road-users. This will result from the combination of the **High** sensitivity of residents and walkers, **Medium-high** sensitivity of road-users and the **High** magnitude of change. This assessment applies to the localised open parts on this developed and tree covered hill side.

Alternative Design Options

- 15.12.140 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.62 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 12: Coliemore Harbour seating area

- 15.12.141 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change relating to the MDA will be **Medium-high**. While a large proportion of the construction works will be visible from Coliemore Harbour, the screening effect of Dalkey Island to the east means that the central part of the Dublin Array offshore infrastructure will be mostly screened from view. Visibility during the construction phase will include the presence and activity of construction vessels and the use of tall cranes to construct the emerging offshore WTGs, OSP and the use of construction lighting during the hours of darkness.

15.12.142 They will be seen to occupy much of the visible seascape, extending behind Dalkey Island and seen at a minimum distance of approximately 9.8km. The contrast with the baseline view will be accentuated by the construction of a large-scale offshore wind farm in a view where currently there is no other large-scale development visible and no other development at sea. The use of construction lighting during the hours of darkness will add to the overall effect by denoting the activity of the construction works and adding bright and moving lights into an area otherwise characterised by darkness.

15.12.143 The effect of the Dublin Array offshore infrastructure MDO on visual receptors at Coliemore Harbour during the construction phase will be significant at a **Major-moderate** level for residents and walkers and at a **Moderate** level for road-users. This will result from the combination of the **Medium-high** sensitivity of residents and walkers, **Medium** sensitivity of road-users and the **Medium-high** magnitude of change. This assessment applies to the open aspects which occur along this coastline. The effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.144 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.63 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 13: Dún Laoghaire Harbour East Pier

15.12.145 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **Medium-high**. The closest edge of the Dublin Array offshore infrastructure will be located a minimum of approximately 12.1km from the viewpoint. The southern part of the array area will be obscured behind the Forty Foot promontory. Those components of the construction works that will be readily apparent from this viewpoint include the construction vessels and their tall cranes used to construct the offshore WTGs, and the use of construction lighting during the hours of darkness. From this viewpoint and with this layout the construction of the OSP would not be visible.

15.12.146 While there are some medium to large scale developments visible in the view, such as the ferry terminal and the piers, these are associated with the coast and the construction of the offshore infrastructure would be associated with the sea, presenting a notable change from the baseline view where there is no development at sea. The use of construction lighting during the hours of darkness will add to the overall effect by denoting the activity of the construction works and adding bright and moving lights into an area otherwise characterised by darkness.

15.12.147 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Dún Laoghaire Harbour during the construction phase will be significant at a **Major-moderate** level for residents, walkers and ferry passengers and at a **Moderate** level for road-users. This will result from the combination of the **Medium-high** sensitivity of residents, walkers and ferry passengers, **Medium** sensitivity of road-users, and the **Medium-high** magnitude of change. This assessment applies to the open seafront of Dún Laoghaire and the effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.148 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.64 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 14: R131 near Martello Tower, Sandymount

15.12.149 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **Medium**. The construction works will be seen at a minimum distance of approximately 17.8km from the viewpoint. The offshore construction works will comprise the emergence of the offshore infrastructure, most notably the WTGs, and the presence and activity of the construction vessels and the use of construction lighting during the hours of darkness. The construction works will be seen to occupy the southern half of the sea view, with the northern half towards Howth Head remaining free from development. The southern part of the array area will be obscured by Dún Laoghaire headland, including for this layout the OSP.

15.12.150 While the construction works will have a notable effect on visual receptors along this section of coastline, this will be moderated to some extent by the presence of the large-scale energy developments at Dublin Port and the movement of ferries and other large vessels across the bay, both of which increase the influence of development within the seaward sector of the view. The use of construction lighting during the hours of darkness will add to the overall effect by denoting the activity of the construction works and adding bright and moving lights into an area largely characterised by darkness. Bright and moving lights associated with Dublin Port on the landward side will be to the north (Dublin Array offshore infrastructure will be seen to the southeast), with occasional ferry and freight traffic leaving the port and sailing within the same view as the under-construction Dublin Array offshore infrastructure during hours of darkness.

15.12.151 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Sandymount during the construction phase will be significant at a **Moderate** level for residents and walkers, and road-users. This will result from the combination of the **Medium-high** sensitivity of residents and walkers, and **Medium** sensitivity of road-users, and the **Medium** magnitude of change. This assessment applies to the open seafront of Sandymount. The effect will be adverse, short-term and reversible.

Alternative Design Options

15.12.152 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.65 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 15: Promenade near Clontarf village

15.12.153 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **Medium-low**. The view is currently characterised by large-scale energy developments and port infrastructure of Dublin Port on the far side of the water from this viewpoint. The construction works will be located to the southeast of Dublin Port out in the Irish Sea, seen beyond the Great South Wall, and extending north to the gap of visible open sea between Poolbeg Lighthouse and North Bull Island. The Great South Wall will screen the presence and activity of the construction vessels and lower-level construction works of the southern part of the array area. The upper-level construction works, undertaking the construction of the offshore WTGs using tall cranes, will still be visible. For the northern part of the array area construction vessels, the emergence of the offshore WTGs, and the use of construction lighting during the hours of darkness will be visible.

15.12.154 The effect on visual receptors will be moderated by the existing influence from closer range large scale developments, such that the construction works will not redefine the character of the views experienced by walkers, cyclists, road-users or residents along this section of coastline. The construction works will be seen at a minimum distance of approximately 19.1km from the viewpoint.

15.12.155 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Clontarf Village during the construction phase will be not significant at a **Moderate** or **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of residents, cyclists and walkers, and **Medium** sensitivity of road-users, and the **Medium-low** magnitude of change. This assessment applies to the open seafront of Clontarf. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.156 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller WTG's . The comparative wireline in Figure 3.15.66 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 16: Near the Bull Wall, North Bull Island

- 15.12.157 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **Medium**. The presence and activity of the construction vessels and the emergence of offshore WTGs, OSP, and the use of construction lighting during the hours of darkness will be readily visible from North Bull Island. Those factors which moderate the magnitude of change include the minimum separation distance of 16.4km from the viewpoint and the presence of large-scale energy developments at Dublin Port.
- 15.12.158 The alignment of Bull Wall directly towards the offshore infrastructure, combined with its location in the section of open horizon where in the baseline there is no development, will raise the prominence of the construction works and raise their effect on the expectations of visual receptors on North Bull Island. The night-time lighting will further affect these visual receptors by creating sources of bright and moving lights beyond the sweep of the lighthouses dotted along the coast and ferries and freight traffic passing in and out of the port.
- 15.12.159 The effect of Dublin Array offshore infrastructure MDO on visual receptors on Bull Island during the construction phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment applies to the open coastline of Bull Island. The effects will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.160 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.67 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 17: R105, Sutton

- 15.12.161 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **Medium**. The emergence of the offshore infrastructure will be readily visible from Sutton, while the presence and activity of the construction vessels with their tall cranes will potentially be screened by the intervening landform of North Bull Island, the emergence of the offshore WTGs, OSP, and the use of construction lighting during the hours of darkness will be visible. Those factors which moderate the magnitude of change include the minimum separation distance of 16.5km from the viewpoint as well as the physical separation formed by the intervening landform.

15.12.162 The construction works will, nonetheless, be seen in a sector of the view where there is currently no large-scale development and from this viewpoint, the more distant location of Dublin Port weakens its moderating influence on the introduction of new developments. Albeit distant and separated by intervening landform, the construction works will form a notable addition in the views of walkers, cyclists, road-users and residents along the Sutton seafront. The night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights beyond the North Bull Island which has few light sources. The construction lighting will be seen to the south of the settlement lights of Sutton North.

15.12.163 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Sutton during the construction phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of residents, cyclists and walkers, and **Medium** sensitivity of road-users, and the view, and the **Medium** magnitude of change. This assessment applies to the open seafront of Sutton.

Alternative Design Options

15.12.164 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.68 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 18: Howth Head Viewpoint

15.12.165 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change relating to the MDO will be **Medium-high**. The viewpoint at Howth Head is located a minimum of approximately 11.8km from the array area where the construction works will include the presence and activity of the construction vessels, with their tall cranes, the emergence of the offshore WTGs, OSP and the use of construction lighting during the hours of darkness.

15.12.166 As the baseline view currently presents an open and undeveloped seascape, the addition of an emerging large scale and dynamic development within the sea, will form a new focus and a notable change in the views of walkers. The night-time lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook. The magnitude of change is prevented from being rated high as the construction works will be concentrated in the seascape to the south, such that the open seascape to the east and the north-east will remain unaffected.

15.12.167 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Howth Head during the construction phase will be significant a **Major** level. This will result from the combination of the **High** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. This assessment applies to the open southern and eastern coastlines of Howth Head. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.168 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.69 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 19: Car park near Martello Tower, Portrane

15.12.169 During the construction phase of the Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **Low**. The construction works will be located to the southeast of Howth Head and occupy the southern part of the seascape view. The main visual impacts relating to the construction phase will include the presence and activity of the construction vessels, the emergence of the offshore WTGs, OSP and the use of construction lighting during the hours of darkness.

15.12.170 At a minimum distance of 24.1km from this viewpoint, all components of the offshore infrastructure construction will be readily visible and will form a relatively small scale and distant feature, appearing to extend out from behind Howth Head. The night-time lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook, with the exception of lights associated with occasional ferry and freight traffic. The effect on the views of walkers, cyclists, road-users and residents in this area will be limited and the principal seaward outlook to Lambay Island will remain unaffected.

15.12.171 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Portrane during the construction phase will be not significant at a **Moderate-minor** or **minor level**. This will result from the combination of the **Medium-high** sensitivity of walkers, the **Medium** sensitivity of residents and road-users, and the **Low** magnitude of change. This assessment applies to the open seafront of Portrane. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.172 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.70 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 20: Entrance to new housing estate, Rush

15.12.173 During the construction phase of the Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **Low**. The main visual impacts relating to the construction phase will include the presence and activity of the construction vessels, the emergence of the offshore WTGs, OSP and the use of construction lighting during the hours of darkness. At a minimum distance of 26.4km from this viewpoint, all components of the offshore infrastructure construction will be visible and will occupy a small proportion of the seascape view. Despite the separation distance and the resultant moderate scale of the components, there will be a notable change in the character of this view owing to the introduction of development into a previously undeveloped and open seascape. The night-time lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook.

15.12.174 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Rush during the construction phase will be not significant at a **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Low** magnitude of change. This assessment applies to the open seafront of Rush. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.175 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.71 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 21: Offshore view 7km south-east of Howth Head

15.12.176 During the construction phase of the Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **High**. Views of the surrounding seascape are an important part of the ferry passengers' experience and heightened awareness often occurs on approaching the destination. In the views to the south of the ferry route, a full view of the construction works will be experienced and while the main feature will be the emerging offshore WTGs, the other components of the offshore infrastructure will also be visible, along with the presence and activity of the construction vessels and associated plant. When construction works coincide with the hours of darkness, construction lighting will also make a difference to this outlook from the ferry. The high magnitude of change reflects the proximity of the ferry route to the northern end of the construction works and the notable change that their addition into a previously undeveloped seascape will make.

15.12.177 The effect of Dublin Array offshore infrastructure MDO on visual receptors on various ferries during the construction phase will be significant at a **Major** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment applies to views from the ferry out to an approximate range of 15km from the offshore infrastructure. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.178 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.72 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 22: Tonelagee

15.12.179 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **Low**. The view from Tonelagee is characterised by the surrounding uplands, loughs and glens. While parts of the Irish Sea can be seen over the hilltops to the east and north-east, it is seen as a distant background feature. The minimum distance of approximately 32.4km to the array area means that those parts of the offshore infrastructure that will be visible during the construction phase, will appear as small-scale and distant features.

15.12.180 Despite the limited influence of development within the baseline view, the very limited additional influence from the construction works will mean that the views of walkers will not be notably affected, and the defining influence will continue to be the natural landscape. Construction lighting visible at night as distant brightness and movement in what would otherwise have been a dark outlook would have limited influence due to the distance from the viewpoint.

15.12.181 The effect of Dublin Array offshore infrastructure MDO on visual receptors on Tonelagee during the construction phase will be not significant at a **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Low** magnitude of change. This assessment applies to the wider upland area. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.182 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.73 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 23: Djouce Mountain

- 15.12.183 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **Medium-low**. The construction works will be readily visible from this elevated viewpoint. The visual impact will relate to the presence and activity of the construction vessels and the emergence of the offshore infrastructure, most notably the offshore WTGs as well as the OSP, and the use of construction lighting during the hours of darkness. In the views of hill walkers, the construction works will appear at variance with the character of this coastal area, largely owing to their location out in the sea where currently there is no development. The night-time lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook.
- 15.12.184 The effect will, however, be moderated by the minimum separation distance of 20.9km, which means the construction works will appear as a relatively small and distant feature, occupying only a small proportion of a much wider view. Furthermore, while the coast presents an attractive aspect in the views of hill walkers, the intrinsic character of these views is drawn from the immediate and surrounding upland landscape, and this will remain unaffected.
- 15.12.185 The effect of Dublin Array offshore infrastructure MDO on visual receptors on Djouce Mountain during the construction phase will be not significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Medium-low** magnitude of change. This assessment applies to the wider upland area. The effects will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.186 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.74 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 24: Forty Foot bathing area

- 15.12.187 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **Medium-high**. While the majority of the construction works will be visible from the Forty Foot bathing area, the screening effect of Sorrento Point to the south means that the southernmost part of the array area will not be visible. Visibility during the construction phase will include the presence and activity of construction vessels and the use of tall cranes to construct the emerging offshore WTGs and OSP. While they will not occupy the northerly sector of the view towards Howth Head, they will be seen to occupy much of the easterly sector and extending south beyond Sorrento Point. They will be seen at a minimum distance of approximately 11.1km.

- 15.12.188 The contrast with the baseline view will be accentuated by the construction of a large-scale offshore wind farm in a view where currently there is no other large-scale development visible and no other development at sea. The use of construction lighting during the hours of darkness will add to the overall effect by denoting the activity of the construction works and adding bright and moving lights into an area otherwise characterised by darkness.
- 15.12.189 The effect of the Dublin Array offshore infrastructure MDO on visual receptors at the Forty Foot bathing area during the construction phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of swimmers, walkers and residents, the **Medium** sensitivity of road-users and the **Medium-high** magnitude of change. This assessment applies to those locations along this coastline form where an open aspect towards the sea occurs.

Alternative Design Options

- 15.12.190 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.75 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 25: Ballyedmonduff Road

- 15.12.191 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **Medium**. The construction works will be situated a minimum of approximately 18.3km to the east at its closest point, with the array area occupying a notable extent of the open seascape. The key features that will be visible from the hillside viewpoint include the presence and activity of the construction vessels, with their tall cranes, and the emergence of the offshore WTGs, OSP and the use of construction lighting during the hours of darkness.
- 15.12.192 The construction works will appear at variance with the baseline view on account of the presence of an emerging large scale and dynamic development within the sea, where previously there was no development. This will form a new focus that will affect the views of those residents in this area who enjoy an open easterly aspect. The night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook. The magnitude of change will be medium, taking into account the notable separation distance and the extent of urban development in the baseline view, as well as the new influence that this offshore development will introduce.

15.12.193 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Ballyedmonduff Road during the construction phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of residents and the view, and the **Medium** sensitivity of road-users, and the **Medium** magnitude of change. This assessment applies to the very few and localised open patches that occur across this largely enclosed hillside.

Alternative Design Options

15.12.194 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.76 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 26: Poolbeg Pier

15.12.195 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change relating to the MDO will be **Medium**. The presence and activity of the construction vessels and the emergence of offshore WTGs, OSP and the use of construction lighting during the hours of darkness will be readily visible from Poolbeg Pier. Dublin Array offshore infrastructure will be seen out in the Irish Sea and framed in this view between the pier and the Dalkey headland out in the Irish Sea, where there currently is no development. The WTGs will occupy a large proportion of the view out towards the Irish Sea and this will form a new focus within the seaward sector of the view.

15.12.196 The array area is located a minimum separation distance of 16.3km from the viewpoint. While the construction works will have a notable effect on visual receptors along the pier, this will be moderated to some extent by the presence of the large-scale energy developments at Dublin Port (located in the opposite direction to the array area) the developed coastal edge of Dublin Bay and the movement of ferries and other large vessels across the Irish Sea, all of which increase the influence of development. The use of construction lighting during the hours of darkness will add to the overall effect by denoting the activity of the construction works and adding bright and moving lights beyond the sweep of the lighthouses dotted along the coast, and ferries and freight traffic crossing the Irish Sea.

15.12.197 The effect of Dublin Array offshore infrastructure MDO on visual receptors on Poolbeg Pier during the construction phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment applies to open areas around Dublin Port.

Alternative Design Options

15.12.198 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.77 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO.

- 15.12.199 The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Principal Visual Receptors

PVR 1: DART / Irish Rail Southeastern Commuter Train

- 15.12.200 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change experienced by rail passengers will vary along the length of the route depending on a range of variables including distance from the array area, extent of visibility, orientation of views and existing baseline influences.
- 15.12.201 The section of train line between Merrion and Wicklow has potential to be affected owing to its close proximity to the coastline and the general openness of views, albeit with some sections enclosed by landform or artificial cuttings, vegetation or buildings. Enclosure is most apparent where the train line passes through Shankill and Dalkey, where the route turns inland and becomes contained by urban development, and where the tunnelled section occurs to the south of Bray Head.
- 15.12.202 The magnitude of change in the southern section of the train line, between Wicklow and Six Mile Point will transition from **Low** to **Medium-low**. This reflects the transition from a minimum separation distance of approximately 21.5km at Wicklow to 12.5km at Six Mile Point, over which the construction works will become readily more visible with an increasing influence on the views of passengers. The emergence of the offshore infrastructure and the presence and activity of construction vessels and associated plant will appear at variance with the simple, open and largely undeveloped coastal plain and seascape, which characterise the baseline views. Construction lighting during hours of darkness will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook.
- 15.12.203 From Six Mile Point to Greystones, the magnitude of change will increase to **Medium**, as the construction works come within a minimum separation distance of 10km.
- 15.12.204 To the north of Greystones, there will be no change where the train line passes through the tunnel, beyond which the magnitude of change will increase to **Medium-high** as it traverses the exposed cliff edge of Bray Head, and from where views eastwards will be aligned directly towards the southern extent of the construction works.
- 15.12.205 Through Bray and Shankill there will be no change as views will be largely contained by surrounding built development. A **Medium** magnitude of change will, however, occur through the intermediate area of Shanganagh, where the slight inset of the train line will mean that tree cover will form partial screening despite the largely open nature of this parkland landscape.
- 15.12.206 While visibility around Killiney Bay will be intermittent owing to enclosure from built form and cuttings, the overall magnitude of change will be **Medium-high**, reflecting the minimum separation distance of approximately 10km, the natural draw of views across the bay and the horizontal and vertical extent of the construction works, which means they will form a prominent feature despite the separation distances.

- 15.12.207 There will be **No change** where the train line cuts inland and the magnitude of change through Dún Laoghaire will be **Low** owing to the sunken route of the train and enclosure from surrounding development and the harbour area.
- 15.12.208 Visibility opens up again where the train line sits tight on the coastline of Blackrock and Merrion, and while only the northern extent of the construction works will be visible, owing to the screening effect of the Dalkey headland, the magnitude of change will be **Medium**. This reflects the notable feature that the construction works will form in the views of passengers, despite the minimum separation distance of approximately 14 to 17km and the extent of urban development along this coastline.
- 15.12.209 Beyond Merrion, the train line is routed away from the coast and the enclosure of urban development ensures **No change** or a very **Low** magnitude of change if glimpsed views occur.
- 15.12.210 The effect of the Dublin Array offshore infrastructure MDO on rail passengers will be significant at a **Major-moderate** or **Moderate** level during the construction phase on the section between Six Mile Point and Merrion, albeit with some lengths within this section undergoing **No effect** where no visibility occurs. The significant effect will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-high** or **Medium** magnitude of change. There will either be **No effect** or a not significant effect at a **Moderate-minor** or **Minor** level on the sections from Merrion to Dublin, and Dublin to Howth, as there will be a **Low** magnitude of change or no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.211 The effect of the ADOs on this PVR during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figures 3.15.53, 3.15.55, 3.14.57, 3.15.62 and 3.15.64 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 2: N11

- 15.12.212 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change experienced by road-users will vary along the length of the N11 depending on a range of variables including distance from the array area, extent of visibility, orientation of views and existing baseline influences.

15.12.213 Views of the array area from the N11 are very limited owing to the almost continuous extent of enclosure from landform and tree cover, as well as built form where adjacent settlements occur. The two sections from which visibility of the Irish Sea arises, occur between junctions 16 and 18 (west of Wicklow) and north of Newcastle junction (east of Trudder). Both sections are similar in that they occur at a high point in the road, with visibility continuing for a short distance over the north-westerly facing aspect before landform and tree cover encloses the view. These views will only be readily apparent to north-bound road-users and will occur to the rear of the direction of travel for south-bound road-users. Furthermore, visibility will be limited by a combination of the minimum of approximately 15km and 23km between these sections and the array area, as well as the north-west orientation of the road compared to the north-east orientation of the Dublin Array offshore infrastructure. In both sections, visibility will occur over an approximate 200 to 300 m section which is a very small proportion of this much longer route. The magnitude of change will be **Medium-low** where visibility occurs and with **No change** where there will be no visibility.

15.12.214 The effect of the Dublin Array offshore infrastructure MDO on road-users of the N11 during the construction phase will be not significant at a **Moderate-minor** or **Minor** level. This finding reflects the limited extent of visibility experienced from the N11 despite the occurrence of small, localised patches of visibility. This will result from the combination of the **Medium** or **Medium-low** sensitivity of the visual receptors and views, and the **Medium-low** magnitude of change in those localised areas where distant and limited extents of visibility will occur. Where there will be no visibility, there will be **No effect**. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.215 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.54 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 3: Bray to Rathnew coastal road (R761)

15.12.216 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change experienced by road-users will vary along the length of the R761 depending on a range of variables including distance from the array area, extent of visibility, orientation of views and existing baseline influences.

15.12.217 Views of the array area from the R761 are limited owing to the extent of enclosure from landform, trees and hedgerows, as well as built form where adjacent settlements occur. The R761 passes through a generally low-lying area, and it is only in the more open and exposed sections that views of the Dublin Array offshore infrastructure will occur.

- 15.12.218 The clearest view will occur to south-bound road-users on the section just south of Bray Head, from where the road passes south out of the settlement of Windgate. There is an approximate 300 m section over which the road descends down towards Greystones but from which there is sufficient elevation to gain clear views out to sea. From here, the construction works will be readily apparent, including the emerging offshore WTGs and other infrastructure, as well as the presence and activity of the construction vessels and plant. Construction lighting will add a further visible feature when works extend into the hours of darkness. Here, the magnitude of change will be **Medium-high** owing to the introduction of construction works into a previously undeveloped seascape at a minimum of approximately 11km from the road.
- 15.12.219 Another section that will be affected occurs across the eastern flank of Leabeg Upper between the settlements of Kilcoole and Newcastle. Here, elevated and open views will feature aspects of the construction works, most notably the emergence of the offshore WTGs and the cranes used in their construction, as well as the presence and activity of the construction vessels and plant. Construction lighting will add a further visible feature when works extend into the hours of darkness. Visibility will be apparent to north-bound road-users as the components will be located in the northerly sector of the views. The magnitude of change will be **Medium** as seen from a minimum of approximately 13km and without the full extent of the offshore infrastructure readily visible.
- 15.12.220 Whilst other glimpsed views will occur from parts of the R761 these will be short in duration and the majority of the route will remain largely unaffected. The overall magnitude of change will be either **Low** or **Negligible**, or **No change** will arise where there will be no visibility.
- 15.12.221 The effect of the Dublin Array offshore infrastructure MDO on road-users of the R761 during the construction phase will be not significant at a **Moderate-minor** or **Minor** level. This finding reflects the limited extent of visibility experienced from the R761 despite the occurrence of significant effects in small, localised patches. The not significant effect will result from the combination of the **Medium** or **Medium-high** sensitivity of the visual receptors and views, and the **Low** or **Negligible** magnitude of change, and with **No effect** where there will be no visibility along the majority of the route. Localised significant effects at a **Major-moderate** or **Moderate** level will occur to the north of Greystones and to the north of Newcastle, albeit over relatively short sections as described above.

Alternative Design Options

- 15.12.222 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 4: Bray to Greystones Cliff Walk

- 15.12.223 During the construction phase of the Dublin Array offshore infrastructure, the magnitude of change will be **High**. The close proximity of this path to the coast means that walkers will be readily exposed to the visual impacts associated with the construction vessels and emerging offshore infrastructure, including the construction of the large and dynamic offshore WTGs. Construction lighting will add a further visible feature when works extend into the hours of darkness.
- 15.12.224 The full extent of the offshore construction works will be readily visible at a minimum distance of 10km from the cliff walk. They will be seen to occupy a substantial proportion of the seascape and will appear at variance with this largely natural coastline, albeit with a railway line and path cut along its edge and settlements at either end.
- 15.12.225 The effect of the Dublin Array offshore infrastructure on visual receptors on the cliff walk during the construction phase will be significant at a **Major** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, the **High** magnitude of change. This assessment applies to the full extent of the Bray to Greystones cliff walk. The effects will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.226 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.57 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 5: Howth Head Loop

- 15.12.227 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** along the southern and eastern coastlines and onto the southern slopes of the central upland area. There will be **No change** in the remaining sections as there will be no visibility.
- 15.12.228 The ZTV in Figure 3.15.15a (SLVIA GIS Figures Appendix) shows the limited extent of theoretical visibility across the peninsula, albeit with patches shown to be concentrated around the southern and eastern coasts and over the southern slopes of the Ben of Howth.

15.12.229 From the southern and eastern coasts, where the magnitude of change will be medium-high, the construction works will affect the views of walkers owing to their location in an area of previously undeveloped seascape. The key components will be the emergence of the offshore WTGs and OSP along with the presence and activity of the construction vessels and their associated plant. While effects will mostly occur during daylight, where working hours coincide with hours of darkness, artificial lighting will be used, and this will add to the overall effect. Despite a separation distance of 9 to 12km, the large size of the emerging offshore WTGs, the associated construction vessels and associated plant required for their construction, will form a notable feature at variance with the openness and simplicity of the seascape.

15.12.230 The effect of the Dublin Array offshore infrastructure MDO on walkers on the Howth Head Loop during the construction phase will be significant at a **Major-moderate** level along the southern and eastern coastlines and southern slopes of the central upland area. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and views, and the **Medium-high** magnitude of change. In the remaining sections there will be **No effect**, as there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.231 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figures 3.15.69 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 6: The Wicklow Way

15.12.232 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change experienced by walkers will vary along the length of the Wicklow Way depending on a range of variables including distance from the array area, extent of visibility, orientation of views and existing baseline influences.

15.12.233 The ZTV in Figure 3.15.15b (SLVIA GIS Figures Appendix) shows the limited extent of theoretical visibility along this route, with actual visibility reduced further by the extent of commercial forestry. The main area of theoretical visibility occurs in the northern section, between Glencullen and Djouce Mountain. The Wicklow Way passes over Fairy Castle (536 m AOD) presenting a brief open view extending out to the Irish Sea, where the northern extent of the construction works would be visible in the form of emerging offshore infrastructure and the presence and activity of the construction vessels and associated plant. While effects will mostly occur during daylight, where working hours coincide with hours of darkness, artificial lighting will be used, and this will add to the overall effect. The magnitude of change will be **Medium-low** as the construction works will be seen at a minimum distance of approximately 20km and in the context of the urban influences of Dublin City.

- 15.12.234 The Wicklow Way then passes mostly along forest tracks with a brief opening to the north of Knockree, although low levels of visibility shown on the ZTV would denote a **Low** magnitude of change.
- 15.12.235 It is only across the upper slopes of Djouce Mountain (725 m AOD) and the summit of White Hill (630 m AOD) that walkers will experience higher levels of visibility for a longer duration. From these east facing slopes, the construction works will be visible to their full extents. The magnitude of change will, however, be moderated by the minimum distance of approximately of 19 to 22km, which will mean the construction vessels and emerging infrastructure will occupy only a small proportion of the wider views in which the more immediate uplands have a characterising influence. They will, nonetheless, introduce development into an area of seascape which was previously undeveloped. And the magnitude of change will be **Medium-low**.
- 15.12.236 Beyond Djouce Mountain, the occurrence of visibility will be especially limited and in those localised elevated parts where visibility does occur, it will be so distant and limited in extents that the magnitude of change will not rise above **Low**.
- 15.12.237 The overall effect of the Dublin Array offshore infrastructure MDO on walkers on the Wicklow Way during the construction phase will be either not significant at a **Moderate**, **Moderate-minor** or **Minor** level and with **No effect** where there will be no visibility. This finding relates to the very limited extent of visibility along the length of the route, despite visual receptors having a **Medium-high** or **Medium** sensitivity. While very localised significant effects at a Moderate level may occur around Fairy Castle and Djouce Mountain, the views of walkers will remain largely unaffected. The effects will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.238 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.74 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 7: Wicklow

- 15.12.239 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change on visual receptors in Wicklow will range from **Medium**, **Medium-low** to **Low**, with many areas experiencing **No change**, owing to no visibility.
- 15.12.240 The main visual impacts relating to the construction phase will include the presence and activity of the construction vessels, the emergence of the offshore WTGs, OSP and the use of construction lighting during the hours of darkness. At a minimum distance of approximately 21 to 23km, the offshore infrastructure construction will be readily visible, seen set to the north and offset from the east coast.

15.12.241 From the majority of the town there will be no visibility owing to the enclosure if the urban development. While visibility will occur from the harbour area, the magnitude of change will be moderated by the combination of the separation distance and the closer range influence of the industrial developments in this area, resulting in a **Medium-low** rating. From the more elevated residential areas on the southern slopes of the town, while localised points of visibility will give rise to a **Medium** magnitude of change, for the majority of road-users, walkers and residents, visibility will either not occur or occur as glimpsed views. There will be **No change** in the many parts of the town where there will be no visibility.

15.12.242 The overall effect of the Dublin Array offshore infrastructure MDO on visual receptors in Wicklow during the construction phase will be not significant at a **Moderate** or **Moderate-minor** level and with some localised areas of significant effects at a **Moderate** level from the southern slopes of the town. This finding relates to the fact that much of the town is enclosed by relatively dense built form, the construction works will be located some distance from the town and where visibility does occur it will be seen in the context of closer range urban development. Where there will be no visibility, there will be no effect. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.243 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.52 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 8: Greystones

15.12.244 During the construction phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** along the coastal edge and other exposed parts and with **No change** from remaining parts where there is no visibility or limited visibility.

15.12.245 From this coastal edge, a minimum distance of approximately 9km from the closest edge of the Dublin Array offshore infrastructure, all construction activities and components will be readily visible. This will include the presence and activity of the construction vessels, with their tall cranes, and the emergence of the offshore WTGs and OSP. The construction works will appear at variance with the baseline view on account of the presence of an emerging large scale and dynamic development within the sea, where previously there was no development. This will form a new focus that will affect the views of walkers, road-users and residents along the seafront. The night-time lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook. There will be **No change** in the many parts of the town where there will be no visibility.

15.12.246 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Greystones during the construction phase will be significant at a **Major-moderate** or **Moderate** level along the coastal edge and other exposed parts. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. This assessment covers all seafront receptors in the town of Greystones who experience open views across the sea. There will be **No effect** across the majority of the town owing to no or limited visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.247 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.55 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 9: Bray

15.12.248 During the construction phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** along the coastal edge and other exposed parts and with **No change** from remaining parts where there is no visibility or limited visibility.

15.12.249 From this coastal edge, a minimum distance of approximately 11km from the closest edge of the Dublin Array offshore infrastructure, all construction activities and components will be readily visible. This will include the presence and activity of the construction vessels, with their tall cranes, and the emergence of the offshore WTGs and OSP. The construction works will appear at variance with the baseline view on account of the presence of an emerging large scale and dynamic development within the sea, where previously there was no development. This will form a new focus that will affect the views of walkers, road-users, and residents along the seafront. The night-time lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook. There will be **No change** in the many parts of the town where there will be no visibility.

15.12.250 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Bray Promenade during the construction phase will be significant at a **Major-moderate** or **Moderate** level along the coastal edge and other exposed parts. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. This assessment covers all seafront receptors in the town of Bray who experience open views across the sea. There will be **No effect** across the majority of the town owing to no or limited visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.251 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.58 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 10: Shanganagh

15.12.252 During the construction phase of Dublin Array offshore infrastructure, the magnitude of change will be **Medium-high** along the coastal edge and other exposed parts and with **No change** from remaining parts where there is no visibility or limited visibility. The views of those partaking in recreational activities, such as walking on the beach and in the park or playing golf or other sports, will be notably affected where open seaward views occur.

15.12.253 With a minimum distance of approximately 11km to the closest edge of the Dublin Array offshore infrastructure, the presence and activity of the construction vessels and the emergence of the offshore infrastructure will be readily visible to its full extents. This will include the presence and activity of the construction vessels, with their tall cranes, and the emergence of the offshore WTGs and OSP.

15.12.254 Night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook. This will change the character of the views by introducing a large-scale offshore wind farm into an open and undeveloped seascape, which will appear at variance with the character of this natural coastline and extensive recreational space. This will form a new focus that will affect the views of walkers on the beach and other recreational users of the park and golf course where open seaward views occur. There will be **No change** in the many parts of Shanganagh where there will be no visibility.

15.12.255 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Shanganagh during the construction phase will be significant at a **Major-moderate** or **Moderate** level along the coastal edge and other exposed parts. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. This assessment covers all receptors with open views from the coastal edge. There will be **No effect** across the remaining parts of the settlement owing to no or limited visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.256 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.60 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 11: Shankill / Ballybrack

15.12.257 During the construction phase, the magnitude of change relating to the MDO will be **High** or **Medium-high** the coastal edge, **Low** in those parts behind the coastal edge, but from which the array area is visible, and with **No change** where no visibility arises.

15.12.258 Residents along the coastal edge of Shankill and along 'The Strand' in Ballybrack, enjoy open views towards the sea. These views will be notably altered by the introduction of the construction works which will occupy most of the seaward outlook from this shore, albeit located a minimum of approximately 11km. The presence and activity of the construction vessels and plant, along with the emergence of the offshore WTGs and other infrastructure, will form a new and prominent feature in the outlook of residents, as well as road-users and walkers in the area.

15.12.259 The introduction of the construction works into an area of previously undeveloped seascape will appear at variance with the baseline character, albeit seen from a developed coastline. Night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook. While visibility of the construction works may extend into those urban areas behind the coast, the extent of this visibility will be limited by the screening effect of intervening built form and/or tree cover. For example, buildings and trees will likely screen most of the WTGs such that only small parts or none of the Dublin Array offshore infrastructure would be visible. Here, the magnitude of change will be **Low** or there will be **No change**.

15.12.260 The effect of the Dublin Array offshore infrastructure MDO on visual receptors on the Shankill and Ballybrack coast will be significant at a **Major**, **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **High** or **Medium-high** magnitude of change. The effect of the Dublin Array offshore infrastructure on visual receptors in Shankill and Ballybrack behind the coast will be not significant at a **Moderate-minor** level or there will be **No effect**. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Low** magnitude of change or **No change** where there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.261 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figures 3.15.60 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 12: Killiney

15.12.262 During the construction phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **High** in those parts with open seaward aspects, **Low** in those parts with limited visibility of the array area, and with **No change** where no visibility arises.

15.12.263 The orientation of this coastal area is south-east, which will be towards Dublin Array offshore infrastructure. Furthermore, much of Killiney is set on rising landform such that properties gain elevated views towards the sea. This means that the construction works will form a prominent feature in the views of residents and walkers, and, to a lesser extent, road-users. The visual impact will relate to the presence and activity of the construction vessels and in particular the tall cranes used in the construction of the emerging WTGs and OSP. Night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook. These construction works will appear at variance with both the undeveloped nature of the seascape and the lightly developed nature of this coastline. The construction works will be seen at a minimum distance of approximately 11km. There will be **No change** in the many parts of Killiney where there will be no visibility.

15.12.264 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Killiney during the construction phase will be significant at a **Major** or **Major-moderate** level in those parts with an open aspect. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment covers all seafront receptors in Killiney who experience open views across the sea. The effect will be not significant at a **Moderate-minor** level where visibility will be limited and there will be **No effect** where there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.265 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.61 and Figure 3.15.62 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figures 3.15.61 and 3.15.62 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 13: Dalkey

15.12.266 During the construction phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** in those parts with open seaward aspects, **Low** in those parts with limited visibility of the array area, and with **No change** where no visibility will arise.

15.12.267 While a large proportion of the construction works will be visible from the coastal edge of Dalkey, the screening effect of built form to the south means that the southern part of the Dublin Array offshore infrastructure will not be visible. Visibility during the construction phase will include the presence and activity of construction vessels and the use of cranes (up to approximately 220m LAT) to construct the emerging offshore WTGs and other infrastructure. They will be seen to occupy much of the visible seascape, extending behind Dalkey Island and seen at a minimum distance of approximately 10km.

15.12.268 The contrast with the baseline view will be accentuated by the construction of a large-scale offshore wind farm in a view where currently there is no other large-scale development visible and no other development at sea. The use of construction lighting during the hours of darkness will add to the overall effect by denoting the activity of the construction works and adding bright and moving lights into an area otherwise characterised by darkness. There will be **No change** in the many parts of Dalkey where there will be no visibility.

15.12.269 The effect of the Dublin Array offshore infrastructure MDO on visual receptors at Dalkey during the construction phase will be significant at a **Major-moderate** or **Moderate** level in those parts with an open aspect. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and the **Medium-high** magnitude of change. This assessment covers all seafront receptors in Dalkey who experience open views across the sea. The effect will be not significant at a **Moderate-minor** or **Minor** level where visibility is limited and there will be **No effect** where there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.270 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figures 3.15.63 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 14: Dún Laoghaire

15.12.271 During the construction phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** in those parts with open seaward aspects, **Low** in those parts with limited visibility of the array area, and with **No change** where no visibility arises.

15.12.272 The closest edge of the Dublin Array offshore infrastructure will be located a minimum of approximately 12km from this area. Those components of the construction works that will be readily apparent from this viewpoint, include the construction vessels and their tall cranes used to construct the offshore WTGs and other offshore infrastructure.

15.12.273 While there are some medium to large scale developments visible in the view, such as the ferry terminal and the piers, these are associated with the coast and the construction of the offshore infrastructure would be associated with the sea, presenting a notable change from the baseline view where there is no development at sea. The use of construction lighting during the hours of darkness will add to the overall effect by denoting the activity of the construction works and adding bright and moving lights into an area otherwise characterised by darkness. There will be **No change** in the many parts of Dún Laoghaire where there will be no visibility.

15.12.274 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Dún Laoghaire Harbour during the construction phase will be significant at a **Major-moderate** or **Moderate** level in those parts with an open aspect. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. This assessment applies to all seafront receptors in Dún Laoghaire who experience open views across the sea. The effect will be not significant at a **Moderate-minor** or **Minor** level where visibility will be limited and there will be **No effect** where there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.275 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the relevant comparative wirelines in Figures 3.15.64 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 15: Monkstown / Blackrock

15.12.276 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium** from those sections of the coast where open views occur, **Low** where only limited visibility occurs and **No change** where no visibility occurs.

15.12.277 The **Medium** magnitude of change relates to the location of the construction works to the east and south-east, while the orientation of the coast is across Dublin Bay to the north-east. Furthermore, only the northern extent of the construction works will be visible, with the remainder either partly or fully concealed by the coastal edge around Dún Laoghaire and Dalkey. It will, therefore, be the emerging offshore WTGs forming the main feature, albeit seen at distances between 15 and 16km.

15.12.278 The WTGs will not affect the wider seascape view, but instead will be concentrated towards the developed coastline of Dún Laoghaire, and while this may give rise to awkward comparisons of scale, their effect on the undeveloped baseline view will be moderated. The use of construction lighting during the hours of darkness will add to the overall effect by denoting the activity of the construction works and adding bright and moving lights into an area otherwise characterised by darkness. The construction lights will be seen out at sea beyond the lit coastline and harbours along Dún Laoghaire and Dalkey, which moderates the effect somewhat. Behind the coastal edge, the effects will be reduced by the screening effect of the intervening built form, such that the magnitude of change will be reduced to **Low** or **No change** where no visibility occurs.

15.12.279 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Monkstown and Blackrock during the construction phase will be significant at a **Moderate** level in those parts with an open aspect. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. The effect of Dublin Array offshore infrastructure on visual receptors set back from the coast at Monkstown and Blackrock during the construction phase will be not significant at a **Moderate-minor** or **Minor** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Low** magnitude of change. **No effect** will occur where there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.280 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 16: Sandymount

15.12.281 During the construction phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium** in those parts with open seaward aspects, **Low** in those parts with limited visibility of the array area, and with **No change** where no visibility arises.

15.12.282 The offshore construction works will comprise the emergence of the offshore infrastructure, most notably the WTGs, the presence and activity of the construction vessels which will be used to construct the offshore infrastructure out at sea, and the use of construction lighting during the hours of darkness. The construction works will be seen to occupy the southern half of the sea view, with the northern half towards Howth Head remaining free from development.

15.12.283 While the construction works will have a notable effect on visual receptors along this section of coastline, this will be moderated to some extent by the presence of the large-scale energy developments at Dublin Port, such as Dublin Bay Power and Dublin Waste to Energy Plant, and the movement of ferries and other large vessels across the bay, all of which increase the influence of development within the seaward sector of the view. The use of construction lighting during the hours of darkness will add to the overall effect by denoting the activity of the construction works and adding bright and moving lights into an area otherwise characterised by darkness. The construction lights will be seen out at sea beyond the lit coastline and harbours along Dún Laoghaire and Dalkey, which moderates the effect somewhat. The construction works will be seen at a minimum distance of approximately 18km. There will be **No change** in the many parts of Sandymount where there will be no visibility.

15.12.284 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Sandymount during the construction phase will be significant at a **Moderate** level in those parts with an open aspect. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment applies to all seafront receptors in Sandymount who experience open views across the sea. The effect will be not significant at a **Moderate-minor** or **Minor** level where visibility will be limited and there will be **No effect** where there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.285 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.65 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 17: Dublin Port

15.12.286 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-low** from the more exposed edges of the port where full visibility occurs, **Low** where screening by built form means only partial visibility occurs and **No change** where there is no visibility.

15.12.287 The magnitude of change from this urban area will be notably modified by the existing presence of large-scale developments at the port. While these developments establish energy infrastructure and other large-scale artefacts as a feature of the baseline view, their association with land and the absence of permanent development at sea, will mean that the Dublin Array offshore infrastructure construction will still make a notable change to views from this area.

15.12.288 While the introduction of offshore WTGs and other infrastructure will form a new feature, the minimum separation of approximately 16km combined with the location of the construction works to the south-east rather than east, where the harbour views are orientated and the extent of the open seascape to the east that will remain unaffected, all serve to moderate the effects. The use of construction lighting during the hours of darkness will add to the overall effect by denoting the activity of the construction works and adding bright and moving lights into an area otherwise characterised by darkness.

15.12.289 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Dublin Port during the construction phase will be not significant at a **Moderate-minor** or **Minor** level. This will result from the combination of the **Medium** sensitivity of the visual receptors and view, and the **Medium-low** or **Low** magnitude of change or **No change**. The effects will be adverse, short-term and reversible.

Alternative Design Options

15.12.290 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the relevant comparative wirelines in Figure 3.15.77 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 18: Clontarf

- 15.12.291 During the construction phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-low** where visibility occurs, **Low** where screening by built form means only partial visibility occurs and **No change** where there will be no visibility.
- 15.12.292 The view is currently characterised by the large-scale energy developments located along the two promontories that enclose Dublin Port. The construction works will be located to the southeast of Dublin Port out in the Irish Sea, seen beyond the Great South Wall, and extending north to the gap of visible open sea between Poolbeg Lighthouse and North Bull Island. The Great South Wall will screen the presence and activity of the construction vessels and lower-level construction works of the southern part of the array area. The upper-level construction works, comprising the construction of the offshore WTGs using tall cranes, will still be visible.
- 15.12.293 For the northern part of the array area construction vessels, the emergence of the offshore WTGs, and the use of construction lighting during the hours of darkness will be visible. The effect on visual receptors will be moderated by the existing influence from closer range large scale developments, such that the construction works will not redefine the character of the views experienced by walkers, cyclists, road-users, or residents along this section of coastline. The use of construction lighting during the hours of darkness will add to the overall effect by denoting the activity of the construction works and adding bright and moving lights, extending the influence of bright and moving lights beyond the industrial setting of Dublin Port. The construction works will be seen at a minimum distance of approximately 19km. There will be **No change** in the many parts of Clontarf where there will be no visibility.
- 15.12.294 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Clontarf Village during the construction phase will be not significant at a **Moderate, Moderate-minor** or **Minor** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-low** or **Low** magnitude of change. This assessment applies to all seafront receptors in Clontarf who experience open views across the sea. There will be **No effect** where there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.295 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.66 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 19: Raheny / Kilbarrack / Sutton

- 15.12.296 During the construction phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium** where visibility occurs, **Low** where screening by built form means only partial visibility occurs and **No change** where there is no visibility.
- 15.12.297 The emergence of the offshore infrastructure will be readily visible from these residential areas, while the presence and activity of the construction vessels will potentially be screened by the intervening landform of North Bull Island, the emergence of the offshore WTGs, OSP and the use of construction lighting during the hours of darkness will be visible. Those factors which moderate the magnitude of change include the minimum separation distance of 15 to 17km from the viewpoint as well as the physical separation formed by the intervening landform of North Bull Island.
- 15.12.298 The construction works will, nonetheless, be seen in a sector of the view where there is currently no large-scale development and from this viewpoint, the more distant location of Dublin Port weakens its moderating influence on the introduction of new developments. Albeit distant and separated by intervening landform, the construction works will form a notable addition in the views of walkers, cyclists, road-users, and residents along the seafront. The night-time construction lighting will further affect these visual receptors by creating sources of bright and moving lights beyond the North Bull Island which has few (if any) light sources. The construction lighting will be seen to the south of the settlement lights of Sutton North.
- 15.12.299 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Raheny, Kilbarrack and Sutton during the construction phase will be significant at a **Moderate** level where there is an open aspect. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment applies to all seafront receptors in Raheny, Kilbarrack and Sutton who experience open views across the sea. The effect will be not significant at a **Moderate-minor** or **Minor** level in other parts where the magnitude of change will be **Low**. There will be **No effect** where there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.300 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.68 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 20: Howth Head

- 15.12.301 During the construction phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** from the south and east of Howth Head, **Low** where only limited visibility occurs and **No change** in the core of the settlement where no visibility occurs.
- 15.12.302 Howth Head is located a minimum of approximately 10km from the array area where the construction works will include the presence and activity of the construction vessels, with their tall cranes, and the emergence of the offshore WTGs and OSP. As many of the baseline views from the southern and eastern parts of the settlement currently present an open and undeveloped seascape, the addition of an emerging large scale and dynamic development within the sea, will form a new focus and a notable change in the views of residents. The night-time lighting will further affect these visual receptors by creating sources of bright and moving lights in what would otherwise have been a dark outlook.
- 15.12.303 The **Medium-high** magnitude of change will occur across the southern and eastern parts of the settlement and is prevented from being rated high owing to the open seascape to the east and the north-east remaining unaffected. The main core of the settlement of Howth Head lies on the north of the peninsula and from here there will be no visibility and with limited visibility only starting to occur to the south and east. Here there will be **No change** or a **Low** magnitude of change.
- 15.12.304 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Howth Head during the construction phase will be not significant at a **Moderate-minor** or **Minor** level in the main part of the settlement owing to the low magnitude of change, despite the Medium-high or Medium sensitivity. The effect will be significant at a **Major-moderate** or **Moderate** level across the more elevated fringes to the east and south owing to the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. There will be **No effect** where there will be no visibility. The effects will be adverse, short-term and reversible.

Alternative Design Options

- 15.12.305 The effect of the ADOs on this PVR during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.69 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

15.13 Environmental assessment: operational phase

15.13.1 This part of the assessment considers the potential impact of the offshore infrastructure of Dublin Array offshore infrastructure during the operational and maintenance phase. Table 4 in section 15.10, sets out the maximum design parameters of the project description including for the operational and maintenance phase. The potential impacts during the operational and maintenance phase will largely be limited to the presence of the above sea offshore infrastructure and its influence on seascape, landscape and visual receptors. The assessment of these impacts is presented below.

Potential impacts during operation and maintenance

15.13.2 The Dublin Array offshore infrastructure will be located in the vicinity of the Kish and Bray Banks. The Kish and Bray Banks are located, approximately 10km off the east coast, immediately south-east of Dublin city and off the coast of counties Dún Laoghaire, Rathdown and Wicklow. The location of the array area and its location are shown in Figures 3.15.1 and 3.15.2 (SLVIA GIS Figures Appendix). The offshore infrastructure will be located within an area of approximately 59km².

15.13.3 Planning permission is being sought for between 39 number and 50 number (No.) WTGs and supporting tower structures depending on the model of turbine selected during the procurement process. The maximum blade tip height proposed is 309.6 m (LAT). The layouts presenting the 50 WTG layout (Option A), 45 WTG Layout (Option B) and 39 WTG layout (Option C) are included in the drawings listed below which have been submitted with the planning application (Part 2 Planning Drawings);

- 005059368-08 Site Layout Plans – Offshore Option A (236RD) (Sheet 1 of 4);
- 005059368-08 Site Layout Plans – Offshore Option B (250RD) (Sheet 2 of 4)
- 005059368-08 Site Layout Plans – Offshore Option C (278RD) (Sheet 3 of 4).

15.13.4 To provide a robust assessment of the proposed development, three different design configurations have been assessed reflecting the variation in turbine numbers and rotor diameters under consideration and include

- ✦ Option A: 50 WTGs at a height of 267.6 m (LAT) to blade tip;
- ✦ Option B: 45 WTGs at a height of 281.6 m (LAT) to blade tip; and
- ✦ Option C: 39 WTGs at a height of 309.6 m (LAT) to blade tip.

15.13.5 The impact of the offshore infrastructure during the operational and maintenance phase will relate principally to the following features:

- ✦ The effect on seascape / landscape character and visual amenity owing to the presence of the offshore WTGs and the movement of their blades and the presence of the OSP.
- ✦ The effect on seascape / landscape character and visual amenity owing to use of aviation lighting on the offshore WTGs during the hours of darkness.

- ▲ The effect on seascape / landscape character and visual amenity owing to use of maintenance vessels to service the Dublin Array offshore infrastructure.

15.13.6 The duration of a 35 year period for the operation and maintenance of all offshore infrastructure.

15.13.7 In respect of the operational and maintenance phase of the Dublin Array offshore infrastructure, presented below is the detailed assessment for each seascape and landscape receptor, and each visual receptor and principal visual receptor.

15.13.8 In summary, the operational phase of the Dublin Array offshore infrastructure will give rise to significant effects across both of the seascape character areas assessed, with RSCA 14: Irish Seas Sandbanks and Broad Bays wholly affected and RSCA 15: Dublin Bay only partly affected, owing to the screening effect of intervening landform and the baseline influence from industrial and urban development in Dublin Bay.

15.13.9 In respect of landscape character, the assessment found that significant effects will arise during the operational phase in parts of the following six of the eight LCAs assessed.

- ▲ Wicklow Coastal Area LCA – northern part;
- ▲ Wicklow: Corridor Area East LCA – localised east facing slopes;
- ▲ Wicklow: The Northern Hills LCA - east facing slopes of the coastal hills to the north, west and south of Delgany, and the rising landform to the west of Kilcoole and south-west of Kilpedder;
- ▲ Wicklow: Glencree / Glencullen LCA – localised east facing slopes of the hills;
- ▲ Dún Laoghaire: Shanganagh LCA – along coastal edge extending inland where open and/or elevated areas occur; and
- ▲ Fingal: Coastal Howth Head LCA – southern and eastern parts.

15.13.10 These significant effects will extend out to a radius of approximately 12km to the west, 15km to the north-west, and 18km to the south-east, and will relate principally to the close association between the coastal headlands, hills and bays to the seascape where the Dublin Array offshore infrastructure will be located. The effect of the Dublin Array offshore infrastructure on all other LCAs during the operational phase will be not significant.

15.13.11 The Dublin Array offshore infrastructure would also have a significant effect on the corresponding parts of the following designated landscapes;

- ▲ Wicklow Coast AONB;
- ▲ Wicklow Northern Hills AONB; and
- ▲ Howth Special Amenity Area / High Amenity Zone.

15.13.12 In respect of landscape designations, there will be a significant effect on the whole of the Wicklow Coast AONB, and on parts of the Northern Hills AONB and the Howth SAAO / HAZ, chiefly in relation to the proximity of these designated landscapes to the Dublin Array offshore infrastructure, and the strong association between these designated landscapes and the adjacent seascape. The effect on the Wicklow Mountains NP and AONB will be not significant. This finding relates to the greater separation between these designated landscapes and Dublin Array offshore infrastructure, the weaker association between these designated landscapes and the east coast seascape, the stronger association with the surrounding uplands, and the limited visibility across the NP and AONB as a whole. The Wicklow Mountains are principally defined by the intrinsic character of the immediate and surrounding upland landscapes, albeit with the east coast seascape presenting an important aspect of the wider context.

15.13.13 In respect of viewpoints and visual receptors, there will be a significant effect on 21 of the 26 representative viewpoints, and 16 of the 20 principal visual receptors, although only one of these will be affected wholly with the remaining 15 affected only partly. This finding indicates that visual effects will extend out to approximately 21km from the closest edge of the Dublin Array offshore infrastructure with the closest coastal edge at approximately 10km. The majority of the significant effects will arise from the combination of the medium-high or medium sensitivity of walkers, residents and road-users along the coast, with the medium-high or high magnitude of change that will result from the introduction of the Dublin Array offshore infrastructure into a previously undeveloped seascape. The seaward outlook forms the principal view for visual receptors along this east coast and the introduction of the Dublin Array offshore infrastructure will redefine the character of many of the views experienced by residents, road and rail-users, walkers, and other people spending time on this eastern coast.

Potential impacts on seascape and landscape receptors

15.13.14 The detailed assessment for each seascape and landscape receptor in respect of the construction phase is presented at section 15.12 and in respect of the operational and maintenance phase of the Dublin Array offshore infrastructure is presented below. The baseline description and assessment of sensitivity for each seascape and landscape receptor is presented in section 15.7.

Regional Seascape Character Areas

RSCA 14: Irish Seas Sandbanks and Broad Bays

15.13.15 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** or **Medium**.

15.13.16 The ZTVs in Figures 3.15.12a and 3.15.12b (SLVIA GIS Figures Appendix) show theoretical visibility to be continuous along this coastline. The openness of the coastline means that actual visibility will be broadly similar, apart from where settlements along the coast reduce the inland extent of visibility. The presence of the offshore infrastructure will be seen at a minimum distance of 9km from the northern section of this RSCA, between Killiney and Greystones, and also set directly eastwards to match the principal orientation of the coastline. The influence on the RSCA will be derived from the presence and activity of WTGs, and the presence of the OSP. These components will appear at variance with the baseline character of the open and undeveloped seascape and the magnitude of change will be **Medium-high**, prevented from being rated high owing to the separation distance and the existing influence of development along this coastline.

15.13.17 In the southern section of the RSCA, between Greystones and Wicklow, the minimum separation distance increases from 9km to 22km and the close association gradually weakens as the array area is situated to the north-east and the coastline is orientated to the east. While the array area will not occupy the majority of the seaward view, as it will from the northern section, it will, nonetheless, occupy a notable extent, such that the offshore infrastructure, described above, will have a notable influence on coastal character, especially in the context of this largely undeveloped section. The magnitude of change will be **Medium**.

15.13.18 The effect of the Dublin Array offshore infrastructure MDO on this RSCA during the operational phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the high or **Medium-high** sensitivity of the RSCA and the **Medium-high** or **Medium** magnitude of change. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.19 The effect of the ADOs on RSCA 14 during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

RSCA 15: Dublin Bay

15.13.20 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high**, **Medium** or **Medium-low** with areas of **No change** where there will be no visibility.

- 15.13.21 In respect of Dublin Bay, the ZTV in Figure 3.15.12a (SLVIA GIS Figures Appendix) shows theoretical visibility to be continuous around the bay. The density of seafront development, combined with the absence of rising landform in the hinterland, means that visibility will be largely contained within the immediate seafront area. The full extent of the offshore infrastructure will not, however, be visible from all sections of this coastline, owing to a combination of the location of the array area to the south of Dublin Bay and the screening effect of the intervening headland at Dalkey, especially for the section between Dalkey and Sandymount. Furthermore, the large-scale developments at Dublin Port will reduce the full extent of visibility along parts of the city centre and Clontarf coastline and this will reduce the magnitude of change to **Medium-low**.
- 15.13.22 From the northern section of the RSCA, the coastline is orientated south-east back towards the array area. The key components that will have an influence on coastal character, include the presence of the offshore WTGs, the movement of their blades and the presence of the OSP. The magnitude of change on this RSCA will be **Medium**.
- 15.13.23 Those factors which will moderate the change include the minimum separation distance of 10km to 20km, the presence of almost continuous development along this coast, the presence of large-scale industrial development at Dublin Port and the traffic of ferries and freight vessels passing in and out of the harbour. Those factors which will contribute to the change include the introduction of large-scale structures into a seascape area where previously there were no permanent structures, the notable horizontal and vertical extent of the emerging structures and the close association between this coastal edge and the adjacent seascape.
- 15.13.24 In respect of Howth Head, the ZTV in Figure 3.15.12a (SLVIA GIS Figures Appendix) shows theoretical visibility to be continuous around the southern and eastern coastlines, while there will be no theoretical visibility around the north-eastern and northern coastlines. The Howth peninsula is situated a minimum distance of approximately 10km to the north-west of the array area. The upland landform at the centre of the peninsula effectively screens the northern coastline from visibility of the array area and, therefore, there will be **No change** across this area. On the southern and eastern coastline, the magnitude of change will be **Medium-high**.
- 15.13.25 The baseline context of an undeveloped seascape will be altered by the introduction of emerging offshore infrastructure, including large offshore WTGs, the movement of their blades, and the presence of the OSP. The openness of the southern coastline and its alignment broadly in the direction of the array area means the offshore infrastructure will form a readily visible and notable change. While the orientation of the eastern coastline is more oblique to the location of the array area, the elevation of the cliffs means that there is still a strong association with the wider seascape and from here there will also be a notable change.
- 15.13.26 The effect of Dublin Array offshore infrastructure on the Dublin Bay part of this RSCA during the operational phase will be significant at a **Moderate** level. This will result from the combination of the **Medium** sensitivity of the RSCA and the **Medium** magnitude of change. The effect on the sections of this RSCA around Dublin Port and Clontarf will be not significant at a **Moderate-minor** level owing to the influence from existing large-scale developments. The effects will be adverse, long-term and reversible.

15.13.27 The effect of the Dublin Array offshore infrastructure MDO on the southern and eastern parts of Howth Head during the operational phase will be significant at a **Major-moderate** level. This will result from the combination of the **Medium-high** sensitivity of the RSCA and the **Medium-high** magnitude of change. There will be **No effect** on the northern parts of this RSCA during the operational phase as there will be no visibility. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.28 The effect of the ADOs on RSCA 15 during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Landscape Character Areas

Wicklow: Coastal Area LCA

15.13.29 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** in northern part and **Medium** or **Medium-low** in the central part and **Low** or **No change** in the southern part.

15.13.30 The ZTV in Figures 3.15.13b (SLVIA GIS Figures Appendix) shows theoretical visibility to be almost continuous across the two northern parts of the LCA, and furthermore, it shows high levels of visibility in which 36 to 39 WTGs are visible. Within the southern part of the LCA nearly the entire area shows no theoretical visibility due to the screening provided by Wicklow Head, however there are small patches of theoretical visibility associated with highpoints at Ballynacarrig, Ardanary and the southern part of Wicklow Head. Actual visibility along the coast, will largely correlate with theoretical visibility, owing to the openness of this landscape, and typically visibility will dissipate within the hinterland, owing to the increasing enclosure of the tree cover with distance from the coast.

15.13.31 The parts of the offshore infrastructure that will have an indirect influence on the character of this LCA includes principally the offshore WTGs, the movement of their blades, and the presence of the OSP. The WTGs will form a strong influence on the two northern parts of this LCA.

15.13.32 In those parts of the LCA to the north and south of Greystones, the magnitude of change will be **Medium-high** along the coast and **Medium** further inland. This reflects the location of the offshore infrastructure at a minimum distance of approximately 10km from the LCA and the variance to the baseline character of an undeveloped seascape that the offshore infrastructure will give rise to. The magnitude of change is prevented from being rated high owing to the separation distance and the existing presence of development along this coastline.

- 15.13.33 The magnitude of change along the coast to the south of Kilcoole will be **Medium**. This relates to a combination of factors including an increase in the minimum separation distance of approximately 10 to 20km, the oblique angle at which the array area sits relative to the orientation of the LCA and, as a result, the smaller proportion of the seaward aspect that the array area will occupy. The presence of tree cover inland will further reduce visibility and therefore also the influence of the offshore infrastructure, such that the magnitude of change will reduce to **Medium-low**.
- 15.13.34 The magnitude of change within the southern part of the LCA south of Wicklow will be **Low** or **No change** owing to the very limited or no visibility of the construction works due to the screening provided by Wicklow Head. Where visibility does occur the moderating factors include the minimum separation distance of 20 – 30km, the oblique angle at which the array area sits relative to the orientation of the LCA and, as a result, the smaller proportion of the seaward aspect that the array area will occupy.
- 15.13.35 The effect of the Dublin Array offshore infrastructure MDO on the northern and central parts of this LCA during the operational phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-high, Medium** or **Medium-low** magnitude of change. The effect of the Dublin Array offshore infrastructure on the southern part of this LCA during the construction phase will be not significant at a **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Low** magnitude of change, or **No effect** where no change occurs. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.36 The effect of the ADOs on the Coastal Area LCA during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: Corridor Area East LCA

15.13.37 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium** in those localised parts where relatively full visibility arises, **Medium-low** where limited visibility arises and with **No change** where there will be no visibility.

15.13.38 The ZTV in Figure 3.15.13b (SLVIA GIS Figures Appendix). shows that theoretical visibility is largely continuous and typically high in levels, albeit with patches of no visibility where low coastal hills create screening of seaward views north of Wicklow. Actual visibility will be greatly reduced by the presence of coniferous forestry and deciduous woodland as well as the tree cover which provides enclosure across the farmed landscape. South of Wicklow theoretical visibility reduces to no visibility with one interlinked patch of higher visibility associated with a ridge of inland hills extending northwest from Ballynacarrig.

15.13.39 The most visible component of the offshore infrastructure will be the offshore WTGs as these will be the largest and most prominent features, including the movement of their blades. Where fuller visibility occurs, the presence of the OSP will also have an indirect influence on the LCA.

15.13.40 Those localised parts which will undergo a **Medium** magnitude of change as a result of the offshore infrastructure include the east facing slopes of the coastal hills to the north, west and south of Delgany, and the rising landform to the west of Kilcoole and south-west of Kilpedder. The assessment takes into account the minimum separation distance of approximately 11 to 16km of these areas and also the baseline influence of the nearby settlements and N11.

15.13.41 A **Medium-low** or **Low** magnitude of change will occur in those localised areas of actual visibility from 16km out to 28km, owing not only to the greater separation distance from the offshore infrastructure but also the greater influence from the surrounding landscapes which form the defining context to this part of the LCA.

15.13.42 The effect of the Dublin Array offshore infrastructure MDO during the operational phase will be significant at a **Moderate** level on those localised parts of the LCA within 11 to 16km from where actual visibility occurs. This will result from the combination of the **Medium** sensitivity of the LCA and the **Medium** magnitude of change. In those parts of the LCA beyond 16km from where actual visibility occurs the effect will be not significant at a **Moderate-minor** level. This will result from the combination of the **Medium** sensitivity of the LCA and the **Medium-low** magnitude of change. Where there will be **No change**, there will be **No effect**. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.43 The effect of the ADOs on the Corridor Area East LCA during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: The Northern Hills LCA

15.13.44 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** or **Medium** in those parts where actual visibility occurs and with **No change** in all remaining parts where there is no visibility.

15.13.45 The ZTV in Figure 3.15.13b (SLVIA GIS Figures Appendix) shows that theoretical visibility is patchy across this LCA. The hills are broadly oval shaped with the longer eastern flank facing towards the southern extent of the array area. The ZTV shows visibility extending across these east facing slopes and onto the summits, but with no visibility on the west facing slopes owing to the screening effect of the hills themselves. The elevated nature of these hills means that they will be readily exposed to the indirect influences of the offshore infrastructure, albeit seen as a component part of a much wider context. The key feature will be the offshore WTGs and the movement of their blades, with the OSP also visible.

15.13.46 The **Medium-high** or **Medium** magnitude of change on landscape character will arise owing to the location of the offshore infrastructure at a minimum distance of between approximately 10 and 15km, and the alteration of a seascape previously without development, into a seascape with development. The magnitude of change is prevented from being rated high owing to the existing presence of development along the coastal edge and the much wider context which influences the character of this LCA. In those areas screened by the intervening landform, there will be no visibility of the Dublin Array offshore infrastructure and, therefore, there will be **No change**.

15.13.47 The effect of the Dublin Array offshore infrastructure MDO on this LCA during the operational phase will be significant at a **Major-moderate** or **Moderate** level across the east facing slopes and summits of the hills. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-high** or **Medium** magnitude of change. In those parts of the LCA where there will be no visibility, there will be **No change** and **No effect**. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.48 The effect of the ADOs on The Northern Hills LCA during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: Glencree / Glencullen LCA

- 15.13.49 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-low** in those localised parts where visibility occurs, **Low** where visibility is limited and with **No change** in those parts where there is no visibility.
- 15.13.50 The ZTV in Figure 3.15.13b (SLVIA GIS Figures Appendix) shows theoretical visibility to be concentrated in the eastern part of the LCA with limited visibility occurring in the remaining parts. The patch of visibility covers the low hills which surround the village of Enniskerry. While commercial forestry and other tree cover will notably reduce the extent of actual visibility in this area, there are also open upland areas of farmland from where the offshore infrastructure will be visible, most notably on the north-western side of the village.
- 15.13.51 At a minimum separation distance of approximately 14 to 19km, the magnitude of change will be **Medium-low** across the east facing slopes of these hills, from where the offshore WTGs, the movement of their blades and other offshore infrastructure will be visible. The separation distance will mean that the offshore infrastructure will occupy only a small proportion of the wider context to this LCA but will, nonetheless, appear at variance with both the rural character of the LCA and the undeveloped character of the seascape in which the array area will be located. Further west, into Glencree, there is mostly no visibility with a few small patches of low-level visibility, such that there will either be **No change** or a **Low** magnitude of change.
- 15.13.52 The effect of the Dublin Array offshore infrastructure MDO on this LCA during the operational phase will be significant at a **Moderate** level in those localised parts where visibility will occur. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-Low** magnitude of change. In the remaining parts there will either be **No effect** owing to no visibility, or a not significant effect at a **Moderate-minor** level owing to limited visibility and a **Low** magnitude of change. The effects will be adverse, long-term and reversible.

Alternative Design Options

- 15.13.53 The effect of the ADOs on the Glencree / Glencullen LCA during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: North East Mountain Lowlands LCA

- 15.13.54 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-low** or **Low** in localised parts where actual visibility will occur and with **No change** where no visibility occurs.

- 15.13.55 The ZTV in Figure 3.15.13b (SLVIA GIS Figures Appendix) shows the very limited extent of theoretical visibility in respect of this extensive LCA. This is due to the LCA being largely contained in the valley of the Vartry River, with the band of upland hills to the east forming enclosure and screening the eastern coast. In those large parts of the LCA where there will be no visibility, there will be **No change**. While patches of theoretical visibility occur along the eastern hills included in the LCA, extensive forestry will reduce the extents of theoretical visibility.
- 15.13.56 Where localised patches of actual visibility occur over the east facing slopes, the offshore infrastructure will be visible from minimum distances of approximately 16 to 19km. The magnitude of change will be **Medium-low**, reflecting the notable separation distance which will mean that the offshore infrastructure will be seen as a relatively distant feature and will occupy only a small proportion of the wider characterising context.
- 15.13.57 The key feature of the offshore infrastructure that will be visible from this range will be the offshore WTGs, owing to their large number and large scale, including the movement of their blades. The smaller structures of the OSP will also be visible.
- 15.13.58 While other patches of visibility occur on the upper western slopes of the LCA, to the west of Great Sugar Loaf Mountain and north-east of Roundwood, these show low levels of visibility indicating that the full extent of the offshore infrastructure will be largely screened by the surrounding hills and as they will be located from 16 to 23km away, will give rise to either **Medium-low** or **Low** magnitudes of change.
- 15.13.59 The effect of the Dublin Array offshore infrastructure MDO on this LCA during the operational phase will be not significant at a **Moderate** or **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-low** or **Low** magnitude of change in those localised parts where actual visibility will occur. Across the majority of the LCA there will be no visibility, and, therefore, there will be **No change** and **No effect**. The effects will be adverse, long-term and reversible.

Alternative Design Options

- 15.13.60 The effect of the ADOs on the North East Mountain Lowlands LCA during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: Mountain Uplands LCA

- 15.13.61 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-low** or **Low**, where actual visibility occurs, and with **No change**, where no visibility occurs.

15.13.62 The ZTV in Figure 3.15.13b (SLVIA GIS Figures Appendix) shows that the majority of this LCA will not be affected by visibility of the Dublin Array offshore infrastructure, largely owing to the screening effect of other hills on the eastern side of the Mountain Uplands. There is, however, a localised area in the north-east of the LCA, where theoretical visibility is shown to occur and includes Djouce Mountain (725 m AOD), War Hill (686 m AOD), Torduff (642 m AOD) and Kippure (757 m AOD). The ZTV shows theoretical visibility to extend across the middle to upper, east-facing slopes of these hills. The magnitude of change on the character of this north-eastern part of the LCA will be **Medium-low** for the following reasons.

15.13.63 Firstly, the minimum separation distance will be between 18 and 27km such that the offshore infrastructure will appear as a relatively distant feature. Secondly, the offshore infrastructure will occupy only a small proportion of a much wider context, in which the surrounding uplands will provide the characterising feature. Thirdly, development already forms an intrinsic part of the baseline context, seen to extend along the east coast and in association with the city of Dublin set to the north. The offshore infrastructure will, nonetheless, have some indirect influence on the character of the LCA owing to the presence of the offshore WTGs in a previously undeveloped seascape.

15.13.64 Actual visibility across other parts of the LCA will be limited to the tops and upper slopes of the highest hills and their more distant position relative to the array area means the magnitude of change will be reduced to **Low**.

15.13.65 The effect of the Dublin Array offshore infrastructure MDO on this LCA during the operational phase will be not significant at a **Moderate** or **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-low** or **Low** magnitude of change. Where there will be no visibility, there will be **No change** and **No effect**. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.66 The effect of the ADOs on the Mountain Uplands LCA during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Dún Laoghaire: Shanganagh LCA

15.13.67 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** or **Medium**, with **No change** occurring where there will be no visibility.

15.13.68 The ZTVs in Figures 3.15.13a and 3.15.13b (SLVIA GIS Figures Appendix) show theoretical visibility to be almost continuous across this LCA. The openness of the coastline means that theoretical visibility will match actual visibility and here the magnitude of change will be **Medium-high**.

15.13.69 During the operational phase, the offshore WTGs and their moving blades, will form the principal feature. There will also be an effect from the presence of the OSP and night-time lighting used during the hours of darkness. These components of the offshore infrastructure will be seen at a minimum separation distance of 10km and in direct alignment with the eastern orientation of the coastline. Further inland, while the extent of mature tree cover will reduce the extent to which the offshore infrastructure will be readily visible, they will still have a notable effect on character, especially in the winter months when the screening effect of the tree cover is reduced. The magnitude of change will be **Medium** in those areas where visibility occurs and **No change** where there is no visibility.

15.13.70 The effect of the Dublin Array offshore infrastructure MDO on this LCA during the operational phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-high** or **Medium** magnitude of change. Where there will be no visibility, there will be **No change** and **No effect**. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.71 The effect of the ADOs on the Shanganagh LCA during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Fingal: Coastal Howth Head

15.13.72 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** in those parts of the LCA where actual visibility occurs and with **No change** in those parts where there is no visibility.

15.13.73 The ZTV in Figure 3.15.13a (SLVIA GIS Figures Appendix) shows the limited extent of theoretical visibility across this LCA, with patches shown to be concentrated around the southern and eastern coasts of the peninsula and over the southern slopes of the Ben of Howth. Across the remaining majority of the peninsula there will be no visibility and therefore **No change** in these areas.

15.13.74 From the southern and eastern coasts, the offshore infrastructure will have an indirect effect on landscape character owing to its location in an area of previously undeveloped seascape. The key components will be the presence and movement of the offshore WTGs, as well as the presence of the OSP. The magnitude of change will be **Medium-high**. Despite a separation distance of 9 to 12km, the large size and number of the offshore WTGs will form a notable feature at variance with the openness and simplicity of the seascape.

15.13.75 The effect of Dublin Array offshore infrastructure MDO on this LCA during the operational phase will be significant at a **Major-moderate** level across the southern and eastern parts of the LCA. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-high** magnitude of change. In the remaining parts there will be **No effect** as there will be no visibility. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.76 The effect of the ADOs on the Coastal Howth Head LCA during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Landscape Designations

Wicklow Mountains National Park (WMNP)

15.13.77 The Wicklow Mountains National Park (WMNP) lies within the Mountain Upland LCA. As such the detailed assessment for this LCA, presented above, also applies to this NP. The magnitude of change is assessed as **Medium-low** or **Low** where visibility occurs and with **No change** where there is no visibility.

15.13.78 The ZTV in Figure 3.15.14b (SLVIA GIS Figures Appendix) shows that the majority of WMNP will not be affected by visibility of the Dublin Array offshore infrastructure, largely owing to the screening effect of other hills on the eastern side of WMNP. There is, however, a localised area in the north-east of WMNP, where theoretical visibility is shown to occur and includes Djouce Mountain (725 m AOD), War Hill (686 m AOD), Torduff (642 m AOD) and Kippure (757 m AOD). The ZTV shows theoretical visibility to extend across the middle to upper, east-facing slopes of these hills.

15.13.79 The magnitude of change on the character of this north-eastern part of WMNP will be **Medium-low** for the following reasons. Firstly, the minimum separation distance will be between 18 and 27km such that the construction works will appear as a relatively distant feature. Secondly, the construction works will occupy only a small proportion of a much wider context, in which the surrounding uplands will provide the characterising feature. Thirdly, development already forms an intrinsic part of the baseline context, seen to extend along the east coast and in association with the city of Dublin set to the north.

15.13.80 The construction works will, nonetheless, have some indirect influence on the character of WMNP owing to the presence and activity of the construction vessels, the emergence of the offshore infrastructure and the use of artificial lighting during hours of darkness, in a previously undeveloped seascape.

15.13.81 Actual visibility across other parts of WMNP will be limited to the tops and upper slopes of the highest hills and their more distant position relative to the array area means the magnitude of change will be reduced to **Low**.

15.13.82 The effect of the Dublin Array offshore infrastructure MDO on this NP during the operational phase will be not significant at a **Moderate** or **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the NP and the **Medium-low** or **Low** magnitude of change. In those parts of the NP where there will be no visibility, there will be **No effect**.

Alternative Design Options

15.13.83 The effect of the ADOs on the WMNP during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow Mountains and Lakeshore AONB

15.13.84 The Wicklow Mountains and Lakeshore AONB coincides with the Mountain Uplands LCA. As such, the detailed assessment for this LCA, presented above, also applies to this AONB. The magnitude of change is assessed as **Medium-low** or **Low** where visibility will occur and with **No change** where there will be no visibility.

15.13.85 The ZTV in Figure 3.15.14b (SLVIA GIS Figures Appendix) shows that the majority of WMNP will not be affected by visibility of the Dublin Array offshore infrastructure, largely owing to the screening effect of other hills on the eastern side of WMNP. There is, however, a localised area in the north-east of WMNP, where theoretical visibility is shown to occur and includes Djouce Mountain (725 m AOD), War Hill (686 m AOD), Torduff (642 m AOD) and Kippure (757 m AOD). The ZTV shows theoretical visibility to extend across the middle to upper, east-facing slopes of these hills.

15.13.86 The magnitude of change on the character of this north-eastern part of WMNP will be **Medium-low** for the following reasons. Firstly, the minimum separation distance will be between 18 and 27km such that the construction works will appear as a relatively distant feature. Secondly, the construction works will occupy only a small proportion of a much wider context, in which the surrounding uplands will provide the characterising feature. Thirdly, development already forms an intrinsic part of the baseline context, seen to extend along the east coast and in association with the city of Dublin set to the north.

15.13.87 The construction works will, nonetheless, have some indirect influence on the character of WMNP owing to the presence and activity of the construction vessels, the emergence of the offshore infrastructure and the use of artificial lighting during hours of darkness, in a previously undeveloped seascape.

15.13.88 Actual visibility across other parts of WMNP will be limited to the tops and upper slopes of the highest hills and their more distant position relative to the array area means the magnitude of change will be reduced to **Low**.

15.13.89 The effect of the Dublin Array offshore infrastructure MDO on this NP during the operational phase will be not significant at a **Moderate** or **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the NP and the **Medium-low** or **Low** magnitude of change. In those parts of the NP where there will be no visibility, there will be **No effect**.

Alternative Design Options

15.13.90 The effect of the ADOs on this AONB during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow Coast AONB

15.13.91 The Wicklow Coast AONB coincides with the Northern Coast LCA. As such, the detailed assessment for this LCA, presented above, also applies to this AONB. The magnitude of change is assessed as being medium high, medium or medium-low, depending on the proximity of the different parts of the AONB to the offshore infrastructure, the levels of visibility that occur and the other natural and human influences acting on the baseline character of the AONB.

15.13.92 The effect of the Dublin Array offshore infrastructure MDO on this AONB during the operational phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the AONB and the **Medium-high**, **Medium** or **Medium-low** magnitude of change. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.93 The effect of the ADOs on this AONB during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow Northern Hills AONB

15.13.94 The Northern Hills AONB coincides with The Northern Hills LCA. As such, the detailed assessment for this LCA, presented above, also applies to this AONB. The magnitude of change is assessed as medium-high in those parts where visibility occurs and with no change where there is no visibility.

15.13.95 The effect of the Dublin Array offshore infrastructure MDO on this AONB during the operational phase will be significant at a **Major-moderate** or **Moderate** level across the east facing slopes and summits of the hills. This will result from the combination of the **Medium-high** sensitivity of the AONB and the **Medium-high** or **Medium** magnitude of change. In those parts of the AONB where there will be no visibility, there will be **No effect**. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.96 The effect of the ADOs on this AONB during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Howth Special Amenity Area Order / High Amenity Zone

15.13.97 The Howth Special Amenity Area Order lies within Coastal Howth Head LCA. As such, the detailed assessment for this LCA, presented above, also applies to this SAAO. The magnitude of change is assessed as medium-high along the southern and eastern coasts and across the southern slopes of the central upland area. Across the remainder of the SAAO there will be no change as there will be no visibility.

15.13.98 The effect of the Dublin Array offshore infrastructure MDO on this SAAO during the operational phase will be significant at a **Major-moderate** level across the southern and eastern parts of the SAAO. This will result from the combination of the **Medium-high** sensitivity of the SAAO and the **Medium-high** magnitude of change. In the remaining parts there will be **No effect** as there will be no visibility.

Alternative Design Options

15.13.99 The effect of the ADOs on this SAAO during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Potential impacts on views and visual receptors

15.13.100 The detailed assessment for each viewpoint and principal visual receptor in respect of the operational and maintenance phase of the Dublin Array offshore infrastructure is presented below. The baseline description and assessment of sensitivity for each receptor is presented in section 15.7.

Representative Viewpoints

Viewpoint 1: Scenic Car Park, Wicklow

15.13.101 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium**. The main visual impacts relating to the operational phase will include the presence of the offshore WTGs and OSP, and the use of aviation lighting during the hours of darkness. At a minimum distance of 21.4km from this elevated viewpoint, all components of the Dublin Array offshore infrastructure will be readily visible and will be seen to occupy 10 to 20 degrees of the seascape view as shown in the Horizontal Angle ZTV in Figure 3.15.11b (SLVIA Visualisations Appendix). Despite the separation distance and the resultant moderate scale of the components, there will be a notable change in the character of this view owing to the introduction of development into a previously undeveloped and open seascape.

15.13.102 The effect of Dublin Array offshore infrastructure MDO on visual receptors at the Wicklow scenic car park during the operational phase will be significant at a **Major-moderate** level. This will result from the combination of the **High** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.26 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.103 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.52 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 2: Six Mile Point, Newcastle

15.13.104 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high**. The main visual impacts relating to the operational phase will include the presence of the offshore WTGs and OSP, and the use of aviation lighting during the hours of darkness. At a minimum distance of 11.9km from this coastal viewpoint, all components of the Dublin Array offshore infrastructure will be readily visible and will be seen to occupy 30 to 40 degrees of the seascape view as shown in the Horizontal Angle ZTV in Figure 3.15.11b (SLVIA Visualisations Appendix). In a view largely characterised by the open seascape and in which there is no other large-scale developments visible, the Dublin Array offshore infrastructure will have an adverse effect by forming the new defining feature in the view.

15.13.105 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Six Mile Point during the operational phase will be significant at a **Major-moderate** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.27 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.106 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.53 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 3: N11 road near Kilmullin north of Ashford

15.13.107 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium**. From this short, open and elevated section of the N11, seen at a minimum distance of 13.4km, the full extent of the offshore infrastructure will be visible and will occupy 30 to 40 degrees of the seaward view as shown in the Horizontal Angle ZTV in Figure 3.15.11b (SLVIA Visualisations Appendix). Seen beyond the landform that screens the foreshore, the offshore infrastructure will appear at variance with the baseline view on account of the presence of a large scale and dynamic development within the sea, where previously there was no development. Furthermore, the transitory nature of road-users, the high speeds at which they will be travelling, and the short duration of this open aspect all serve to further reduce the magnitude of change. For those stopping at the layby on the north-bound side of the road, their views will be of longer duration and the presence of Dublin Array offshore infrastructure will form a notable change to the view.

15.13.108 The effect of Dublin Array offshore infrastructure MDO on visual receptors at the N11 layby north of Ashford during the operational phase will be significant at a **Moderate** level. This will result from the combination of the **Medium** sensitivity of the visual receptors and the **Medium** magnitude of change. This assessment covers only the localised area around the viewpoint from where views of the Dublin Array offshore infrastructure will be experienced and where the layby offers road-users the opportunity to stop. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.28 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.109 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.54 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 4: Greystones Harbour

15.13.110 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **High**. From this coastal edge, a minimum distance of 8.9km from the closest edge of the array area, all offshore infrastructure will be readily visible and seen to occupy 60 to 90 degrees of the seaward view, as shown in the Horizontal Angle ZTV in Figure 3.15.11b (SLVIA Visualisations Appendix). This will include the presence and activity of the offshore WTGs and OSP. The offshore infrastructure will appear at variance with the baseline view on account of the presence of a large scale and dynamic development within the sea, where previously there was no development. This will form a new focus that will affect the views of walkers, road-users and residents along the seafront.

15.13.111 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Greystones Harbour during the operational phase will be significant at a **Major** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment covers all seafront receptors in the town of Greystones who experience open views across the sea. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.29 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.112 The effect of the ADOs on this viewpoint during the construction phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.55 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 5: Sugar Loaf Mountain

15.13.113 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium**. All offshore infrastructure will be visible from the viewpoint, including the offshore WTGs, and the OSP. The minimum separation distance of 14.7km between the viewpoint and the closest edge of the Dublin Array offshore infrastructure, coupled with the expansive nature of the view, means that the offshore infrastructure will occupy only 40 to 50 degrees of the wider view, as shown in the Horizontal Angle ZTV in Figure 3.15.11b (SLVIA Visualisations Appendix). Despite the contained nature of the offshore infrastructure within the wider view, the introduction of a large-scale development into the seascape where previously there was no development, will form a notable change in the views of hill walkers, as seen from this viewpoint.

15.13.114 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Sugar Loaf Mountain during the operational phase will be significant at a **Major-moderate** level. This will result from the combination of the **High** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment applies to walkers on Great Sugar Loaf Mountain and other similar range hills in this area from which open views to the coast are experienced by hill walkers. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.30 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.115 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.56 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 6: Bray Head walkway

15.13.116 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **High**. The close proximity of this path to the coast means that walkers will be readily exposed to the visual impacts associated with the offshore infrastructure, including the presence of the large and dynamic offshore WTGs. The full extent of the offshore infrastructure will be readily visible at a minimum distance of 10.2km from the viewpoint. This will include the presence and activity of the offshore WTGs and OSP which will occupy 60 to 90 degrees of the view, as shown in the Horizontal Angle ZTV in Figure 3.15.11b (SLVIA Visualisations Appendix). The movement of the blades will be visible in good weather conditions with clear visibility. The offshore WTGs will be seen to occupy a substantial proportion of the seascape and will appear at variance with this largely natural coastline, albeit with a railway line and path cut along its edge.

15.13.117 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Bray Head walkway during the operational phase will be significant at a **Major** level. This will result from the combination of the **High** sensitivity of the visual receptors and view, and the **High** magnitude of change. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.31 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.118 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.57 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 7: Bray Promenade

15.13.119 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **High**. From this coastal edge, a minimum distance of 11.0km from the closest edge of the Dublin Array offshore infrastructure, all offshore infrastructure will be readily visible and seen to occupy 60 to 90 degrees of the wider view, as shown in the Horizontal Angle ZTV in Figure 3.15.11b (SLVIA Visualisations Appendix). This will include the presence and activity of the offshore WTGs and OSP. The movement of the blades will be visible in good weather conditions with clear visibility. The offshore infrastructure will appear at variance with the baseline view on account of the presence of a large scale and dynamic development within the sea, where previously there was no development. This will form a new focus that will affect the views of walkers, visitors, road-users and residents along the seafront.

15.13.120 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Bray Promenade during the construction phase will be significant at a **Major** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment applies to the full extent of the Bray Promenade. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.32 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.121 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.58 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 8: Hill at Carrick Gollogan, near Shankill

15.13.122 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium**. The offshore infrastructure will be situated a minimum of approximately 14.6km to the east, with 15 of the 39 offshore WTGs visible with the rest being obscured by forestry, occupying a notable extent of the visible open seascape. The key features that will be visible from the hill-top viewpoint include the presence and activity of the offshore WTGs and OSP. The offshore infrastructure will appear at variance with the baseline view on account of the large scale of the WTGs and the movement of their blades within a seascape view, where previously there was no development. This will form a new focus that will affect the views of walkers, albeit only from the summit and other open aspects, with views from within the forest areas contained by the surrounding trees.

15.13.123 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Carrick Gollogan during the operational phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment applies to the very few and localised open patches that occur across this wooded hill. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.33 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.124 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figure 3.15.59 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 9: Shankill Beach

15.13.125 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **High**. The views of those partaking in recreational activities, such as walking on the beach and in the park or playing golf or other sports, will be notably affected where open seaward views occur. With a minimum distance of 10.9km to the closest edge of the Dublin Array offshore infrastructure, the presence of the offshore infrastructure will be readily visible to its full extent and the movement of the blades will be visible in good conditions. This will change the character of the views by introducing a large-scale offshore wind farm into an open and undeveloped seascape, which will appear at variance with the character of this natural coastline and extensive recreational space.

15.13.126 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Shankill Beach during the operational phase will be significant at a **Major** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment applies to the coastal edge and more open parts of the inland area. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.34 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.127 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.60 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 10: Killiney Hill Obelisk

15.13.128 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **High**. Killiney hilltop presents walkers with a natural vantage point from which all of the offshore infrastructure will be readily visible. Seen at a minimum distance of 11.0km to the closest edge of the Dublin Array offshore infrastructure, the key components will be the presence of the offshore infrastructure, most notably the tall and dynamic offshore WTGs which will occupy 60 to 90 degrees of the wider view as shown in the Horizontal Angle ZTV in Figure 3.15.11a (SLVIA Visualisations Appendix). The movement of the blades will be visible in good conditions.

15.13.129 The high magnitude of change reflects the variation that the Dublin Array offshore infrastructure will present in respect to the baseline view, which is largely characterised by an undeveloped seascape and a lightly developed coastline. The Dublin Array offshore infrastructure will form a new focus for walkers to the viewpoint, through the introduction of a large-scale offshore wind farm within the seascape, where previously there was no development.

15.13.130 The effect of the Dublin Array offshore infrastructure MDO on visual receptors on Killiney Hill during the operational phase will be significant at a **Major** level. This will result from the combination of the **High** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment applies to the localised open parts of the hilltop. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.35 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.131 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.61 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 11: Vico Road seating area

15.13.132 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **High**. The orientation of this coastal area is south-east, which will be towards the array area. This means that the full extent of the offshore infrastructure will be visible and form a prominent feature in the views of residents and walkers, and, to a lesser extent, road-users. The offshore infrastructure will be seen at a minimum distance of approximately 10.5km from the viewpoint and will occupy 60 to 90 degrees of the view, as shown in the Horizontal Angle ZTV in Figure 3.15.11a (SLVIA Visualisations Appendix). The visual impact will relate to the presence of the offshore WTGs and OSP. The movement of the blades will be visible in good conditions. The offshore infrastructure will appear at variance with both the undeveloped nature of the seascape and the lightly developed nature of this coastline. The Dublin Array offshore infrastructure will form a new focal point in views to the south-east through the introduction of the offshore wind farm into a previously undeveloped and open seascape.

15.13.133 The effect of Dublin Array offshore infrastructure MDO on visual receptors on Vico Road during the operational phase will be significant at a **Major** level for walkers and residents or at a **Major-moderate** level for road-users. This will result from the combination of the **High** sensitivity of walkers and residents, the **Medium-high** sensitivity of road-users, and the **High** magnitude of change. This assessment applies to the localised open parts on this developed and tree covered hill side. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.36 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.134 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.62 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 12: Coliemore Harbour seating area

15.13.135 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high**. While a large proportion of the offshore infrastructure will be visible from Coliemore Harbour, the screening effect of Dalkey Island to the east means that the central part of the Dublin Array offshore infrastructure will be mostly screened from view. A total of 31 offshore WTGs will be visible, three of which will be seen as only blade tips and two as hubs above the island skyline. Visibility during the operational phase will include the presence the offshore WTGs and the movement of their blades, along with the presence of the OSP. The offshore WTGs will be seen to occupy much of the visible seascape, extending behind Dalkey Island and seen at a minimum distance of approximately 9.8km. The contrast with the baseline view will be accentuated by the presence of a large-scale offshore wind farm in a view where currently there is no other large-scale development visible and no other development at sea.

15.13.136 The effect of the Dublin Array offshore infrastructure MDO on visual receptors at Coliemore Harbour during the operational phase will be significant at a **Major-moderate** level for residents and walkers, and significant at a **Moderate** level for road-users. This will result from the combination of the **Medium-high** sensitivity of walkers and residents, the **Medium** sensitivity of road users, and the **Medium-high** magnitude of change. This assessment applies to the open aspects which occur along this coastline. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.37 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.137 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller WTG's . The comparative wireline in Figures 3.15.63 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 13: Dún Laoghaire Harbour East Pier

15.13.138 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high**. The closest edge of the Dublin Array offshore infrastructure will be located a minimum of approximately 12.1km from the viewpoint. The southern part of the array area is obscured behind the Forty Foot promontory. Those components of the offshore infrastructure that will be readily apparent from this viewpoint include 13 offshore WTGs visible above the seascape horizon; above the built form and vegetation of the Forty Foot promontory nine offshore WTGs will be visible as blade tips, and one will be visible as a hub and upper part of WTG. The movement of the blades will be visible in clear visibility. The OSP will not be visible from this viewpoint if this layout is adopted. While there are some medium to large scale developments visible in the view, such as the ferry terminal and the piers, these are associated with the coast and the operation of the offshore infrastructure would be associated with the sea, presenting a notable change from the baseline view where there is no development at sea.

15.13.139 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Dún Laoghaire Harbour during the operational phase will be significant at a **Major-moderate** level for residents, ferry passengers and walkers, and significant at a **Moderate** level for road-users. This will result from the combination of the **Medium-high** sensitivity of residents, ferry passengers and walkers, **Medium** sensitivity of road-users, and the **Medium-high** magnitude of change. This assessment applies to the open seafront of Dún Laoghaire. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.38 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.140 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.64 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 14: R131 near Martello Tower, Sandymount

15.13.141 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium**. The southern part of the array area will be obscured beyond the Dún Laoghaire headland. Those components of the offshore infrastructure that will be readily apparent from this viewpoint include 21 offshore WTGs visible seaward; above the Dún Laoghaire headland four offshore WTGs with the majority of the tower will be visible, three as hubs and upper parts of towers, two as full blades and one as a blade tip. The OSP will not be visible from this viewpoint if this layout is adopted.

15.13.142 The array area will be seen to occupy the southern half of the sea view, with the northern half towards Howth Head remaining free from development. While the offshore infrastructure will have a notable effect on visual receptors along this section of coastline, this will be moderated to some extent by the presence of the large-scale energy developments at Dublin Port and the movement of ferries and other large vessels across the bay, both of which increase the influence of development and other human artefacts within the seaward sector of the view. The operational phase of Dublin Array offshore infrastructure will be seen at a minimum distance of approximately 17.8km from the viewpoint.

15.13.143 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Sandymount during the operational phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of residents and walkers, and **Medium** sensitivity of road-users, and the **Medium** magnitude of change. This assessment applies to the open seafront of Sandymount. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.39 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.144 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller WTGs. The comparative wireline in Figures 3.15.65 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 15: Promenade near Clontarf village

15.13.145 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-low**. The view is currently characterised by the large-scale energy developments and port infrastructure located along the two promontories that enclose Dublin Port. The southern part of the offshore infrastructure will be located beyond Dublin Port such that nine offshore WTGs will be visible as blade tips only above vegetation surrounding the easternmost part of Dublin Port.

15.13.146 The Great South Wall will partially screen the lower-level parts of offshore infrastructure of 21 WTGs. The OSP will not be visible from this viewpoint if this layout is adopted. The effect on visual receptors will be moderated by the existing influence from closer range large scale developments, such that the offshore infrastructure will not redefine the character of the views experienced by walkers, cyclists, road-users or residents along this section of coastline. The construction works will be seen at a minimum distance of approximately 19.1km from the viewpoint.

15.13.147 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Clontarf Village during the operational phase will be not significant at a **Moderate** or **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of residents, cyclists and walkers, and **Medium** sensitivity of road-users, and the **Medium-low** magnitude of change. This assessment applies to the open seafront of Clontarf. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.40 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.148 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.66 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 16: Near the Bull Wall, North Bull Island

15.13.149 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium**. The presence of the offshore infrastructure, most notably the offshore WTGs, will be readily visible from North Bull Island. From this viewpoint, four WTGs will be partially obscured by the intervening structures on this promontory and adjacent Poolbeg Pier, however, from North Bull Island itself and Bull Wall all of the offshore infrastructure will be visible. Those factors which moderate the magnitude of change include the minimum separation distance of 16.4km from the viewpoint, the presence of large-scale energy developments at Dublin Port and ferry and freight traffic passing in and out of the port. The alignment of Bull Wall directly towards the offshore infrastructure, combined with its location in the section of open horizon where in the baseline there is no development, will raise the prominence of the offshore infrastructure and raise their effect on the expectations of visual receptors on North Bull Island.

15.13.150 The effect of Dublin Array offshore infrastructure MDO on visual receptors on Bull Island during the operational phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment applies to the open coastline of Bull Island. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.41 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.151 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.67 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 17: R105, Sutton

15.13.152 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium**. The offshore infrastructure will be readily visible from Sutton, most notably the offshore WTGs which will be seen to occupy a substantial section of the seaward view. All offshore WTGs will be visible from this viewpoint, with visibility ranging from one WTG seen as a blade tip above Howth Head, to offshore WTGs visible as hubs above the horizon to maximum visibility of two-thirds of the tower visible. Those factors which moderate the magnitude of change include the minimum separation distance of 16.5km from the viewpoint as well as the physical separation formed by the intervening landform of North Bull Island. The offshore infrastructure will, nonetheless, be seen in a sector of the view where there is currently no large-scale development and from this viewpoint, the more distant location of Dublin Port weakens its moderating influence on the introduction of new developments. Albeit distant and separated by intervening landform, the offshore infrastructure will form a notable addition in the views of walkers, cyclists, road-users and residents along the Sutton seafront.

15.13.153 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Sutton during the operational phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of residents, cyclists and walkers, and the **Medium** sensitivity of road-users, and the **Medium** magnitude of change. This assessment applies to the open seafront of Sutton. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.42 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.154 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.68 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 18: Howth Head Viewpoint

15.13.155 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high**. The viewpoint at Howth Head is located a minimum of approximately 11.8km from the array area and will occupy 30 to 40 degrees of the wider view as shown in the Horizontal Angle ZTV in Figure 3.15.11a (SLVIA Visualisations Appendix). While four offshore WTGs are screened from this viewpoint by evergreen vegetation, as walkers and visitors move around, the full array will be visible from the trails along the southern and eastern coastlines of Howth Head.

15.13.156 As the baseline view currently presents an open and undeveloped seascape, the addition of an emerging large scale and dynamic development within the sea, will form a new focus and a notable change in the views of walkers. The magnitude of change is prevented from being rated high as the offshore infrastructure will be concentrated in the seascape to the south, such that the open seascape to the east and the north-east will remain unaffected.

15.13.157 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Howth Head during the operational phase will be significant at a **Major** level. This will result from the combination of the **High** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. This assessment applies to the open southern and eastern coastlines of Howth Head. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.43 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.158 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.69 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 19: Car park near Martello Tower, Portrane

15.13.159 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Low**. The operational infrastructure will be located to the south-east of Howth Head. The full extent of the offshore infrastructure will be visible, albeit with the lower parts of one offshore WTG tower obscured by Howth Head. The WTGs will form a distant feature in the views of walkers, and, to a lesser extent, residents and road-users. The offshore infrastructure will be seen at a minimum distance of approximately 24.1km from the viewpoint. The visual impact will relate to the presence of the offshore WTGs and OSP. The offshore infrastructure will appear at variance with both the undeveloped nature of the seascape and the lightly developed nature of this coastline. The effect on the views of walkers, cyclists, road-users and residents in this area will be limited and the principal seaward outlook to Lambay Island will remain unaffected.

15.13.160 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Portrane during the operational phase will be not significant at a **Moderate-minor** or **Minor** level. This will result from the combination of the **Medium-high** sensitivity of walkers and view, the **Medium** sensitivity of residents and road-users, and the **Low** magnitude of change. This assessment applies to the open seafront of Portrane. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.44 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.161 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.70 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 20: Entrance to new housing estate, Rush

15.13.162 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Low**. The offshore infrastructure will be located 26.4km at its closest point from this viewpoint, and although all offshore infrastructure will be visible, it will be seen as a distant and small-scale feature within a wider view. The horizontal angle ZTV in Figure 3.15.11a (SLVIA GIS Figures Appendix) shows that Dublin Array offshore infrastructure will occupy only 10 to 20 degrees of the full 360-degree view. Furthermore, the photomontage in Figure 3.15.45 (SLVIA Visualisations Appendix), shows that the open outlook from this edge of Rush is occupied by a fore to middle ground of agricultural land with the seascape presenting as only a thin band in the background. This lack of prominence will moderate the influence of the offshore infrastructure located in this band of seascape.

15.13.163 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Rush during the operational phase will be not significant at a **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Low** magnitude of change. The effect will be adverse, long term and reversible. This assessment applies to the open seafront of Rush. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.45 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.164 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.71 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 21: Offshore view 7km south-east of Howth Head

15.13.165 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **High**. Views of the surrounding seascape are an important part of the ferry passengers' experience and heightened awareness will occur on approaching or leaving Dublin Port. In the views to the south of the ferry route, a full view of the offshore infrastructure will be experienced, and the main feature will be the offshore WTGs and the dynamic movements of the WTG blades, with the OSP also readily visible. When passing the northern end of Dublin Array offshore infrastructure, the offshore WTGs will appear stacked, presenting a cluttered appearance and increasing the influence on visual receptors. The high magnitude of change reflects the close proximity of ferry routes to the northern end of the offshore infrastructure and the notable change that their addition into a previously undeveloped seascape will make.

15.13.166 The effect of Dublin Array offshore infrastructure MDO on visual receptors on the Dublin ferries during the operational phase will be significant at a **Major** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment applies to views from the ferry out to an approximate range of 15km from the offshore infrastructure. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.46 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.167 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.72 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 22: Tonelagee

15.13.168 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Low**. The view from Tonelagee is characterised by the surrounding uplands, loughs and glens. While parts of the Irish Sea can be seen over the hilltops to the east and north-east, it occurs as a distant background feature. The minimum distance of approximately 32.4km to the array area means that those parts of the offshore infrastructure that will be visible during the operational phase, will appear as small-scale and distant features. Intervening mountains closer to the coast obscure up to nine WTGs, eight visible as blade tips only and one with the bottom half the offshore WTG obscured. Despite the limited influence of development within the baseline view, the very limited additional influence from the offshore infrastructure will mean that the views of walkers will not be notably affected, and the defining influence will continue to be the natural landscape.

15.13.169 The effect of Dublin Array offshore infrastructure MDO on visual receptors on Tonelagee during the operational phase will be not significant at a **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Low** magnitude of change. This assessment applies to the wider upland area. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.47 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.170 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.73 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 23: Djouce Mountain

15.13.171 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-low**. All the offshore infrastructure will be readily visible from this elevated viewpoint. The visual impact will relate to the presence and movement of the blades of the offshore WTGs visible during good conditions. In the views of hill walkers, the offshore infrastructure will appear at variance with the character of this coastal area, largely owing to their location out in the sea where currently there is no development. The effect will, however, be moderated by the minimum separation distance of 20.9km, which means the offshore infrastructure will appear as a relatively small and distant feature, occupying only a small proportion of a much wider view. Furthermore, while the coast presents an attractive aspect in the views of hill walkers, the intrinsic character of these views is drawn from the immediate and surrounding upland landscape, and this will remain unaffected.

15.13.172 The effect of Dublin Array offshore infrastructure MDO on visual receptors on Djouce Mountain during the operational phase will be not significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Medium-low** magnitude of change. This assessment applies to the wider upland area. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.48 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.173 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.74 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 24: Forty Foot bathing area

15.13.174 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high**. While a large proportion of the offshore infrastructure will be visible from the Forty Foot bathing area, the screening effect of Sorrento Point to the south means that the southernmost part of the array area will not be visible. Three offshore WTGs will be obscured by Sorrento Point, one offshore WTG will be visible as a blade tip and two will be visible as hubs above the horizon. Visibility during the operational phase will include the presence of the offshore WTGs and OSP. While they will not occupy the northerly sector of the view towards Howth Head, they will be seen to occupy much of the easterly sector and extending south beyond Sorrento Point. They will be seen at a minimum distance of approximately 11.1km. The contrast with the baseline view will be accentuated by the presence of large scale and dynamic offshore WTGs in a view where currently there is no other large-scale development visible and no other development at sea.

15.13.175 The effect of the Dublin Array offshore infrastructure MDO on visual receptors at the Forty Foot bathing area during the operational phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of swimmers, walkers and residents, and the **Medium** sensitivity of road-users and the **Medium-high** magnitude of change. This assessment applies to the open aspects which occur along this coastline. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.49 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.176 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.75 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 25: Ballyedmonduff Road

15.13.177 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium**. The construction works will be situated a minimum of approximately 18.3km to the east, with the array area occupying a notable extent of the open seascape. The full extent of the offshore infrastructure will be visible with two offshore WTGs seen as hubs above the intervening horizon, two visible as the upper third of the tower visible and one as two-thirds of the tower visible, with the remaining offshore WTGs fully visible. The offshore WTGs will be the key features visible from the hillside viewpoint with the OSP also visible. The offshore infrastructure will appear at variance with the baseline view on account of the introduction of a large scale and dynamic development within the sea, where previously there was no development. This will form a new focus that will affect the views of those residents in this area who enjoy an open easterly aspect. The magnitude of change will be medium, taking into account the notable separation distance and the extent of urban development in the baseline view, as well as the new influence that this offshore development will introduce.

15.13.178 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Ballyedmonduff Road during the operational phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of residents and view, and the **Medium** sensitivity of road-users, and the **Medium** magnitude of change. This assessment applies to the very few and localised open patches that occur across this largely enclosed hillside. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.50 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.179 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.76 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 26: Poolbeg Pier

15.13.180 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium**. The presence of the offshore infrastructure, most notably the offshore WTGs, will be readily visible from Poolbeg Pier. Dublin Array offshore infrastructure will appear to be located between the pier and the Dalkey headland out in the Irish Sea, where there currently is no development, occupying a large proportion of the view out towards the Irish Sea. This will form a new focus within the seaward sector of the view.

15.13.181 The array area is located a minimum separation distance of 16.3km from the viewpoint. While the offshore infrastructure will have a notable effect on visual receptors on the pier, this will be moderated to some extent by the presence of the large-scale energy developments at Dublin Port (located in the opposite direction to the array area) the developed coastal edge of Dublin Bay and the movement of ferries and other large vessels across the Irish Sea, all of which increase the influence of development within Dublin Bay.

15.13.182 The effect of Dublin Array offshore infrastructure MDO on visual receptors on Poolbeg Pier during the operational phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment applies to open areas around Dublin Port. The effects will be adverse, long-term and reversible. The wireline and photomontage for this viewpoint are shown in Figure 3.15.51 (SLVIA Visualisations Appendix).

Alternative Design Options

15.13.183 The effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.77 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Principal Visual Receptors

PVR 1: DART / Irish Rail Southeastern Commuter Train

15.13.184 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change experienced by rail passengers will vary along the length of the route depending on a range of variables including distance from the array area, extent of visibility, orientation of views and existing baseline influences.

15.13.185 The section of train line between Merrion Gates and Wicklow Town has potential to be affected owing to its close proximity to the coastline and the general openness of views, albeit with some sections enclosed by landform, engineered cuttings, vegetation or buildings. Enclosure is most apparent where the train line passes through Shankill and Dalkey, where the route turns inland and becomes contained by urban development, and where the tunnelled section to the south of Bray Head occurs.

15.13.186 The magnitude of change in the southern section of the train line, between Wicklow and Six Mile Point will transition from **Low** to **Medium-low**. This reflects the transition from a minimum separation distance of approximately 21.5km at Wicklow to 12.5km at Six Mile Point, over which the offshore infrastructure will become readily more visible with an increasing influence on the views of passengers. The offshore infrastructure will appear at variance with the simple, open and largely undeveloped coastal plain and seascape, which characterise the baseline views.

15.13.187 From Six Mile Point to Greystones, the magnitude of change will increase to **Medium**, as the construction works come within a minimum separation distance of 10km.

- 15.13.188 To the north of Greystones, there will be **No change** where the train line passes through the tunnel, beyond which the magnitude of change will increase to **Medium-high** as it traverses the exposed cliff edge of Bray Head, and from where views eastwards will be aligned directly towards the southern extent of the offshore infrastructure.
- 15.13.189 Through Bray and Shankill there will be **No change** as views will be largely contained by surrounding built development. A **Medium** magnitude of change will, however, occur through the intermediate area of Shanganagh, where the slight inset of the train line will mean that tree cover will form partial screening despite the largely open nature of this parkland landscape.
- 15.13.190 While visibility around Killiney Bay will be intermittent owing to enclosure from built form and cuttings, the overall magnitude of change will be **Medium-high**, reflecting the minimum separation distance of approximately 10km, the natural draw of views across the bay and the horizontal and vertical extent of the offshore infrastructure, which means the offshore WTGs will form a prominent feature despite the separation distances.
- 15.13.191 There will be **No change** where the train line cuts inland and the magnitude of change through Dún Laoghaire will be **Low** owing to the sunken route of the train and enclosure from surrounding development and the harbour area.
- 15.13.192 Visibility opens up again where the train line sits tight on the coastline of Blackrock and Merrion, and while only the northern extent of the offshore infrastructure will be visible, owing to the screening effect of the Dalkey headland, the magnitude of change will be **Medium**. This reflects the notable feature that the offshore WTGs will form in the views of passengers, despite the minimum separation distance of approximately 14 to 17km and the extent of urban development along this coastline.
- 15.13.193 Beyond Merrion, the train line is routed away from the coast and the enclosure of urban development ensures **No change** or a very **Low** magnitude of change if glimpsed views occur.
- 15.13.194 The effect of the Dublin Array offshore infrastructure MDO on rail passengers will be significant at a **Major-moderate** or **Moderate** level during the operational phase on the section between Six Mile Point and Merrion, albeit with some lengths within this section undergoing **No effect** where no visibility occurs. The significant effect will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-high**, **Medium** and **Medium-low** magnitude of change. There will be either **No effect** or a not significant effect at a **Moderate-minor** or **Minor** level on the sections from Merrion to Dublin City, and Dublin City to Howth. This is because there will either be no or limited visibility owing to the location of these sections inset from the coast and the enclosure in parts from buildings and tree cover. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.195 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figures 3.15.53, 3.15.55, 3.14.57, 3.15.62 and 3.15.64 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 2: N11

15.13.196 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change experienced by road-users will vary along the length of the N11 depending on a range of variables including distance from the array area, extent of visibility, orientation of views and existing baseline influences.

15.13.197 Views of the array area from the N11 are very limited owing to the almost continuous extent of enclosure from landform and tree cover, as well as built form where adjacent settlements occur. The two notable sections from which visibility of the Irish Sea arises, occur between Junctions 16 and 18 (west of Wicklow) and north of Newcastle junction (east of Trudder). Both sections are similar in that they occur at a high point in the road, with visibility continuing for a short distance over the north-westerly facing slopes before landform and tree cover encloses the view.

15.13.198 These views will only be readily apparent to north-bound road-users and will occur to the rear of the direction of travel for south-bound road-users. Furthermore, visibility will be limited by a combination of the minimum distances of approximately 15km and 23km between these sections and the array area, as well as the north-west orientation of the road compared to the north-east orientation of the Dublin Array offshore infrastructure. In both sections, visibility will occur over an approximate 200 to 300 m section which is a very small proportion of this much longer route.

15.13.199 The effect of the Dublin Array offshore infrastructure MDO on road-users of the N11 during the operational phase will be not significant at a **Moderate-minor** or **Minor** level. This finding reflects the limited extent of visibility experienced from the N11 despite the occurrence of small, localised patches of visibility. This will result from the combination of the **Medium** or **Medium-low** sensitivity of the visual receptors and views, and the **Medium-low** magnitude of change in those localised areas where distant and limited extents of visibility will occur. Where there will be no visibility, there will be **No effect**. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.200 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.54 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 3: Bray to Rathnew coastal road (R761)

15.13.201 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change experienced by road-users will vary along the length of the R761 depending on a range of variables including distance from the array area, extent of visibility, orientation of views and existing baseline influences.

15.13.202 Views of the array area from the R761 are limited owing to the extent of enclosure from trees and hedgerows, as well as built form where adjacent settlements occur. The R761 passes through a generally low-lying area, and it is only in the more open and exposed sections that views of the Dublin Array offshore infrastructure will occur.

15.13.203 The clearest view will occur to south-bound road-users on the section just south of Bray Head, from where the road passes south out of the settlement of Windgate. There is an approximate 300 m section over which the road descends down towards Greystones but from which there is sufficient elevation to gain clear views out to sea. From here, the offshore infrastructure will be readily apparent, including the offshore WTGs with their moving blades, and the OSP. Here, the magnitude of change will be **Medium-high** owing to the introduction of offshore infrastructure into a previously undeveloped seascape at a minimum of approximately 11km from the road.

15.13.204 Another section that will be affected occurs across the eastern flank of Leabeg Upper between the settlements of Kilcoole and Newcastle. Here, elevated and open views will feature parts of the offshore infrastructure, most notably the offshore WTGs and their moving blades. Visibility will be apparent to north-bound road-users as the components will be located in the northerly sector of the views. The magnitude of change will be **Medium** as seen from a minimum of approximately 13km and without the full extent of the offshore infrastructure readily visible. Whilst other glimpsed views will occur from parts of the R761 these will be short in duration and the majority of the route will remain largely unaffected. The overall magnitude of change will be either **Low** or **Negligible**, or **No effect** will arise where there will be no visibility.

15.13.205 The effect of the Dublin Array offshore infrastructure MDO on road-users of the R761 during the operational phase will be not significant at a **Moderate-minor** or **Minor** level. This finding reflects the limited extent of visibility experienced from the R761. This will result from the combination of the **Medium** or **Medium-high** sensitivity of the visual receptors and views, and the **Low** or **Negligible** magnitude of change, or **No change**, along the majority of the route. Localised significant effects at a **Major-moderate** or **Moderate** level will occur to the north of Greystones and to the north of Newcastle, albeit over relatively short sections. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.206 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 4: Bray to Greystones Cliff Walk

15.13.207 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **High**. The close proximity of this path to the coast means that walkers will be readily exposed to the visual impacts associated with the large and dynamic offshore WTGs. The full extent of the offshore infrastructure will be readily visible at a minimum distance of 10km from the cliff walk. The offshore WTGs will be seen to occupy a substantial proportion of the seascape and will appear at variance with this largely natural coastline, albeit with a railway line and path cut along its edge and settlements at either end.

15.13.208 The effect of the Dublin Array offshore infrastructure MDO on visual receptors on the cliff walk during the operational phase will be significant at a **Major** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment applies to the full extent of the Bray to Greystones cliff walk. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.209 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.57 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 5: Howth Head Loop

- 15.13.210 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** along the southern and eastern coastlines and onto the southern slopes of the central upland area. There will be **No change** in the remaining sections as there will be no visibility.
- 15.13.211 The ZTV in Figure 3.15.15a (SLVIA GIS Figures Appendix) shows the limited extent of theoretical visibility across the peninsula, albeit with patches shown to be concentrated around the southern and eastern coasts and over the southern slopes of the Ben of Howth. From the southern and eastern coasts, where the magnitude of change will be medium-high, the offshore infrastructure will affect the views of walkers owing to its location in an area of previously undeveloped seascape. The key components will be the offshore WTGs, with the movement of their blades visible in good weather conditions, and an OSP. During the hours of darkness, aviation lighting will be used, and this will add to the overall effect. Despite a separation distance of 9 to 12km, the large scale of the offshore WTGs and their broad extent across the seascape, means they will form a notable feature at variance with the openness and simplicity of the seascape.
- 15.13.212 The effect of the Dublin Array offshore infrastructure MDO on walkers on the Howth Head Loop during the operational phase will be significant at a **Major-moderate** level along the southern and eastern coastlines and southern slopes of the central upland area. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and views, and the **Medium-high** magnitude of change. In the remaining sections there will be **No effect**, as there will be no visibility. The effects will be adverse, long-term and reversible.

Alternative Design Options

- 15.13.213 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figures 3.15.69 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 6: The Wicklow Way

- 15.13.214 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change experienced by walkers will vary along the length of the Wicklow Way depending on a range of variables including distance from the array area, extent of visibility, orientation of views and existing baseline influences.
- 15.13.215 The ZTV in Figure 3.15.15b (SLVIA GIS Figures Appendix) shows the limited extent of theoretical visibility along this route, with actual visibility reduced further by the extent of commercial forestry which encloses substantial parts of the route. The main area of theoretical visibility occurs in the northern section, between Glencullen and Djouce Mountain.

- 15.13.216 The Wicklow Way passes over Fairy Castle (536 m AOD) presenting a brief open view extending out to the Irish Sea, where the northern extent of the offshore infrastructure will be visible as a broad extent of offshore WTGs. The magnitude of change will be **Medium-low** as the offshore infrastructure works will be seen at a minimum distance of approximately 20km and in the context of the urban influences of Dublin City.
- 15.13.217 The Wicklow Way then passes mostly along forest tracks with a brief opening to the north of Knockree, although low levels of visibility shown on the ZTV would denote a **Low** magnitude of change.
- 15.13.218 It is only across the upper slopes of Djouce Mountain (725 m AOD) and the summit of White Hill (630 m AOD) that walkers will experience higher levels of visibility over a longer duration. From these east facing slopes, the offshore WTGs will be visible to their full extents. The magnitude of change will, however, be moderated by the minimum distance of approximately 19 to 22km, which will mean the offshore infrastructure will occupy only a small proportion of the wider views in which the more immediate uplands have a characterising influence. They will, nonetheless, introduce development into an area of seascape which was previously undeveloped, and in these sections the magnitude of change will be **Medium-low**.
- 15.13.219 Beyond Djouce Mountain, the occurrence of visibility will be especially limited and in those localised elevated parts where visibility does occur, it will be so distant and limited in extents that the magnitude of change will not rise above **Low**.
- 15.13.220 The overall effect of the Dublin Array offshore infrastructure MDO on walkers on the Wicklow Way during the operational phase will be not significant at a **Moderate, Moderate-minor** or **Minor** level or **No effect**. This finding relates to the very limited extent of visibility along the length of the route, despite visual receptors having a **Medium-high** sensitivity. While very localised significant effects may occur around Fairy Castle and Djouce Mountain, the views of walkers will remain largely unaffected across the wider extents of the route. The effects will be adverse, long-term and reversible.

Alternative Design Options

- 15.13.221 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.74 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 7: Wicklow

- 15.13.222 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change on visual receptors in Wicklow will be **Medium, Medium-low** or **Low**, with many areas experiencing **No change**, owing to no visibility.

15.13.223 The main visual impacts relating to the operational phase will relate to the offshore WTGs and OSP. At a minimum distance of approximately 21 to 23km, the offshore infrastructure will be readily visible, seen set to the north and offset from the east coast. From the majority of the town there will be no visibility owing to the enclosure of the urban development. While visibility will occur from the harbour area, the magnitude of change will be moderated by the combination of the separation distance and the closer range influence of the industrial developments in this area, which will result in a **Medium-low** rating. From the more elevated residential areas on the southern slopes of the town, while localised points of visibility will give rise to a **Medium** magnitude of change, for the majority of road-users, walkers and residents, visibility will either not occur or occur as glimpsed views.

15.13.224 The overall effect of the Dublin Array offshore infrastructure MDO on visual receptors in Wicklow during the operational phase will be not significant at a **Moderate** or **Moderate-minor** level with some localised areas of significant effects at a **Moderate** level from the southern slopes of the town. This finding relates to the fact that much of the town is enclosed by relatively dense built form, the offshore infrastructure will be located some distance from the town and where visibility does occur it will be seen in the context of closer range urban development. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.225 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.52 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 8: Greystones

15.13.226 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high**. From this coastal edge, a minimum distance of approximately 9km from the closest edge of the Dublin Array offshore infrastructure, all offshore infrastructure will be readily visible. This will include the presence and movement of the offshore WTGs, as well as the presence of the OSP. The offshore infrastructure will appear at variance with the baseline view on account of the presence of an emerging large scale and dynamic development within the sea, where previously there was no development. This will form a new focus that will affect the views of walkers, road-users and residents along the seafront.

15.13.227 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Greystones during the operational phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. This assessment covers all seafront receptors in the town of Greystones who experience open views across the sea. There will be **No effect** across the majority of the town owing to no or limited visibility. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.228 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.55 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 9: Bray

15.13.229 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high**. From this coastal edge, a minimum distance of approximately 11km from the closest edge of the Dublin Array, all offshore infrastructure will be readily visible. This will include the presence and movement of the offshore WTGs, and presence of the OSP. The offshore infrastructure will appear at variance with the baseline view on account of the presence of an emerging large scale and dynamic development within the sea, where previously there was no development. This will form a new focus that will affect the views of walkers, road-users, and residents along the seafront.

15.13.230 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Bray Promenade during the operational phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. There will be **No effect** across the majority of the town owing to no or limited visibility. This assessment covers all seafront receptors in the town of Bray who experience open views across the sea. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.231 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.58 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 10: Shanganagh

- 15.13.232 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high**. The views of those partaking in recreational activities, such as walking on the beach and in the park or playing golf or other sports, will be notably affected where open seaward views occur.
- 15.13.233 With a minimum distance of approximately 11km to the closest edge of the Dublin Array offshore infrastructure, the presence and activity of the offshore infrastructure will be readily visible to its full extents. This will include the presence and movement of the offshore WTGs, along with the OSP. This will change the character of the views by introducing a large-scale offshore wind farm into an open and undeveloped seascape, which will appear at variance with the character of this natural coastline and extensive recreational space. This will form a new focus that will affect the views of walkers on the beach and other recreational users of the park and golf course where open seaward views occur.
- 15.13.234 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Shankill Beach and areas in Shanganagh with a clear seaward view during the operational phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. This assessment covers all receptors with open views from the coastal edge. There will be **No effect** across the majority of this area owing to no or limited visibility. The effects will be adverse, long-term and reversible.

Alternative Design Options

- 15.13.235 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.60 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 11: Shankill / Ballybrack

- 15.13.236 During the operational phase, the magnitude of change of the MDO will be **High** or **Medium-high** along the coastal edge, **Low** in those parts behind the coastal edge, but from which the array area is visible, and with **No change** where no visibility arises. Residents along the coastal edge of Shankill and along 'The Strand' in Ballybrack, enjoy open views towards the sea. These views will be notably altered by the introduction of the offshore infrastructure which will occupy most of the seaward outlook from this shore, albeit located a minimum of approximately 11km.

- 15.13.237 The presence and movement of the offshore WTGs and other infrastructure will form a new and prominent feature in the outlook of residents, as well as road-users and walkers in the area. The introduction of the offshore infrastructure into an area of previously undeveloped seascape will appear at variance with the baseline character, albeit seen from a developed coastline.
- 15.13.238 While visibility of the offshore infrastructure may extend into those urban areas behind the coast, the extent of this visibility will be limited by the screening effect of intervening built form and/or tree cover. Here, the magnitude of change will be **Low** or there will be **No change**.
- 15.13.239 The effect of the Dublin Array offshore infrastructure MDO on visual receptors on the Shankill and Ballybrack coast during the operational phase will be significant at a **Major**, **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **High** or **Medium-high** magnitude of change. The effect of the Dublin Array offshore infrastructure on visual receptors in Shankill and Ballybrack behind the coast will be not significant at a **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Low** magnitude of change and with **No effect** where there will be **No change**. The effects will be adverse, long-term and reversible.

Alternative Design Options

- 15.13.240 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.60 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 12: Killiney

- 15.13.241 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **High**. It will be **Low** in those parts with limited visibility of the array area, and with **No change** where no visibility arises. The orientation of this coastal area is south-east, which will be towards Dublin Array offshore infrastructure. Furthermore, much of Killiney is set on rising landform such that properties gain elevated views towards the sea. This means that the offshore infrastructure will form a prominent feature in the views of residents and walkers, and, to a lesser extent, road-users. The visual impact will relate to the presence of the offshore WTGs, with their moving blades, as well as the presence of the OSP. This offshore infrastructure will appear at variance with both the undeveloped nature of the seascape and the partly developed nature of this coastline. The offshore infrastructure will be seen at a minimum distance of approximately 11km.

15.13.242 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Killiney during the operational phase will be significant at a **Major** or **Major-moderate** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **High** magnitude of change. This assessment covers all seafront receptors in Killiney who experience open views across the sea. The effect will be not significant at a **Moderate-minor** level where visibility is limited and there will be **No effect** where there will be no visibility. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.243 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figures 3.15.61 and 3.15.62 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figures 3.15.61 and 3.15.62 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 13: Dalkey

15.13.244 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** in those parts with open seaward aspects, **Low** in those parts with limited visibility of the array area, and with **No change** where no visibility arises. While a large proportion of the offshore infrastructure will be visible from the coastal edge of Dalkey, the screening effect of built form to the south means that the southern part of the Dublin Array offshore infrastructure will not be visible. Visibility during the operational phase will include the presence of the offshore WTGs, with their moving blades, as well as the presence of the OSP. They will be seen to occupy much of the visible seascape, extending behind Dalkey Island and seen at a minimum distance of approximately 10km. The contrast with the baseline view will be accentuated by the influence of a large-scale offshore wind farm in a view where currently there is no other large-scale development visible and no other development at sea.

15.13.245 The effect of the Dublin Array offshore infrastructure MDO on visual receptors at Dalkey during the operational phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and the **Medium-high** magnitude of change. This assessment covers all seafront receptors in Dalkey who experience open views across the sea. The effect will be not significant at a **Moderate-minor** or **Minor** level where visibility is limited and there will be **No effect** where there is no visibility. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.246 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.63 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 14: Dún Laoghaire

15.13.247 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** in those parts with open seaward aspects, **Low** in those parts with limited visibility of the array area, and with **No change** where no visibility arises.

15.13.248 The closest edge of the Dublin Array offshore infrastructure MDO will be located a minimum of approximately 12km from this area. Those components of the offshore infrastructure that will be readily apparent from this viewpoint include the offshore WTGs with their moving blades and the OSP. While there are some medium to large scale developments visible in the view, such as the ferry terminal and the piers, these are associated with the coast and the offshore infrastructure would be associated with the sea, presenting a notable change from the baseline view where there is no development at sea.

15.13.249 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Dún Laoghaire Harbour during the operational phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change. This assessment applies to all seafront receptors in Dún Laoghaire who experience open views across the sea. The effect will be not significant at a **Moderate-minor** or **Minor** level where visibility is limited and there will be **No effect** where there will be no visibility. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.250 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the relevant comparative wirelines in Figure 3.15.64 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 15: Monkstown / Blackrock

15.13.251 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium** from those sections of the coast where open views occur, **Low** where only limited visibility occurs and **No change** where no visibility occurs. The **Medium** magnitude of change relates to the location of the offshore infrastructure to the east and south-east, while the orientation of the coast is across Dublin Bay to the north-east. Furthermore, only the northern extent of the offshore infrastructure will be visible, with the remainder either partly or fully concealed by the coastal edge around Dún Laoghaire and Dalkey. It will, therefore, be the offshore WTGs with their moving blades that form the main feature, albeit seen at distances of between 15 and 16km. The WTGs will not affect the wider seascape view, but instead will be concentrated towards the developed coastline of Dún Laoghaire, and while this may give rise to awkward comparisons of scale, their effect on the undeveloped baseline view will be moderated. Behind the coastal edge, the effects will be reduced by the screening effect of the intervening built form, such that the magnitude of change will be reduced to **Low** or **No change** where no visibility occurs.

15.13.252 The effect of Dublin Array offshore infrastructure MDO on visual receptors on the coast at Monkstown and Blackrock during the operational phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. The effect of Dublin Array offshore infrastructure on visual receptors behind the coast at Monkstown and Blackrock during the operational phase will be not significant at a **Moderate-minor** or **Minor** level. This will result from the combination of the **Medium-high** sensitivity of the visual receptors and view, and the **Low** magnitude of change or **No change**. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.253 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 16: Sandymount

15.13.254 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium** in those parts with open seaward aspects, **Low** in those parts with limited visibility of the array area, and with **No change** where no visibility arises. The offshore infrastructure will comprise the emergence of the offshore WTGs, which will be seen to occupy the southern half of the sea view, with the northern half towards Howth Head remaining free from development. While the offshore infrastructure will have a notable effect on visual receptors along this section of coastline, this will be moderated to some extent by the presence of the large-scale energy developments at Dublin Port and the movement of ferries and other large vessels across the bay, both of which increase the influence of development and other human artefacts within the seaward sector of the view. The offshore infrastructure will be seen at a minimum distance of approximately 18km.

15.13.255 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Sandymount during the operational phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment applies to all seafront receptors in Sandymount who experience open views across the sea. The effect will be not significant at a **Moderate-minor** level where visibility is limited and there will be **No effect** where there is no visibility. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.256 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.65 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 17: Dublin Port

15.13.257 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-low** from the more exposed edges of the harbour where full visibility occurs, **Low** where screening by built form means only partial visibility occurs and **No change** where there is no visibility.

15.13.258 The magnitude of change from this urban area will be notably modified by the existing presence of large-scale developments at Dublin Port. While these developments establish energy infrastructure and other large-scale artefacts as a feature of the baseline view, their association with land and the absence of permanent development at sea, will mean that the Dublin Array offshore infrastructure will still make a notable change to views from this area. While the introduction of offshore WTGs and other infrastructure will form a new feature, the minimum separation of approximately 16km combined with the location of the construction works to the south-east rather than east, where the harbour views are orientated and the extent of the open seascape to the east that will remain unaffected, all serve to moderate the effects.

15.13.259 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Dublin Port during the operational phase will be not significant at a **Moderate-minor** or **Minor** level. This will result from the combination of the **Medium** sensitivity of the visual receptors and view, and the **Medium-low** or **Low** magnitude of change or **No change**. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.260 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the relevant comparative wirelines in Figure 3.15.77 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 18: Clontarf

15.13.261 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-low** where visibility occurs, **Low** where screening by built form means only partial visibility occurs and **No change** where there is no visibility. The view is currently characterised by the large-scale energy developments located along the two promontories that enclose Dublin Port. The offshore infrastructure will be located beyond of Dublin Port, such that the jacket foundations of the southern part of the array area offshore WTGs will be screened, with the majority of the WTGs visible above or to the north of the Great South Wall. The effect on visual receptors will be moderated by the existing influence from closer range large scale developments, such that the offshore infrastructure will not redefine the character of the views experienced by walkers, cyclists, road-users, or residents along this section of coastline. The offshore infrastructure will be seen at a minimum distance of approximately 19km.

15.13.262 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Clontarf Village during the operational phase will be not significant at a **Moderate**, **Moderate-minor** or **minor** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-low** or **Low** magnitude of change. This assessment applies to all seafront receptors in Clontarf who experience open views across the sea. There will be **No effect** where there will be no visibility. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.263 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.66 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 19: Raheny / Kilbarrack / Sutton

15.13.264 During the operational phase of Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium**. The offshore infrastructure will be readily visible from Sutton, and while the lower parts of the offshore WTGs will be screened by the intervening landform of North Bull Island, the upper parts will be readily visible. Those factors which moderate the magnitude of change include the minimum separation distance of 14 to 16km from the viewpoint as well as the physical separation formed by the intervening landform. The offshore infrastructure will, nonetheless, be seen in a sector of the view where there is currently no large-scale development and from this viewpoint, the more distant location of Dublin Port weakens its moderating influence on the introduction of new developments. Albeit distant and separated by intervening landform, the offshore infrastructure will form a notable addition in the views of walkers, cyclists, road-users, and residents along the Sutton seafront.

15.13.265 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Raheny, Kilbarrack and Sutton during the operational phase will be significant at a **Moderate** level. This will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium** magnitude of change. This assessment applies to all seafront receptors in Raheny, Kilbarrack and Sutton who experience open views across the sea. The effect will be not significant at a **Moderate-minor** or **Minor** level in other parts where the magnitude of change will be **Low** and there will be **No effect** where there will be no visibility. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.266 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.68 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 20: Howth Head

15.13.267 During the operational phase of the Dublin Array offshore infrastructure MDO, the magnitude of change will be **Medium-high** from the south and east of Howth Head, **Low** where only limited visibility occurs and **No change** in the core of the settlement where no visibility occurs.

15.13.268 Howth Head is located a minimum of approximately 10km from the array area where the offshore infrastructure will include the presence of the offshore WTGs, with their moving blades, as well as the presence of the OSP. As many of the baseline views from the southern and eastern parts of the settlement currently present an open and undeveloped seascape, the addition of a large scale and dynamic development within the sea, will form a new focus and a notable change in the views of residents.

15.13.269 The **Medium-high** magnitude of change will occur across the southern and eastern parts of the settlement and is prevented from being rated high owing to the open seascape to the east and the north-east remaining unaffected. The central part of the settlement of Howth Head lies on the north of the peninsula and from here there will be no visibility and with limited visibility only starting to occur to the south and east. Here there will be **No change** or a **Low** magnitude of change.

15.13.270 The effect of Dublin Array offshore infrastructure MDO on visual receptors at Howth Head during the construction phase will be not significant at a **Moderate-minor** or **Minor** level in the main part of the settlement and significant at a **Major-moderate** or **Moderate** level across the more elevated fringes to the east and south. Significant effects will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium-high** magnitude of change in the southern and eastern parts of the settlement. There will be **No effect** where there will be no visibility. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.13.271 The effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents and the comparative wirelines in Figure 3.15.69 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

15.14 Environmental assessment: decommissioning phase

15.14.1 As referenced in the Project Description, the Decommissioning and Restoration Plan (Volume 7, Appendix 2), including the three rehabilitation schedules attached thereto, describes how the Applicant proposes to rehabilitate that part of the maritime area, and any other part of the maritime area, adversely affected by the permitted maritime usages that are the subject of the MACs (Reference Nos. 2022-MAC-003 and 004 / 20230012 and 240020).

15.14.2 It is based on the best scientific and technical knowledge available at the time of submission of this planning application. However, the lengthy passage of time between submission of the application and the carrying out of decommissioning works (expected to be in the region of 35 years as defined in the MDO) gives rise to knowledge limitations and technical difficulties. Accordingly, the Decommissioning and Restoration Plan will be kept under review by the Applicant as the project progresses, and an alteration application will be submitted if necessary. . In particular, it will be reviewed having regard to the following:

- The baseline environment at the time rehabilitation works are proposed to be carried out,
- What, if any, adverse effects have occurred that require rehabilitation,
- Technological developments relating to the rehabilitation of marine environments,
- Changes in what is accepted as best practice relating to the rehabilitation of marine environments,
- Submissions or recommendations made to the Applicant by interested parties, organisations and other bodies concerned with the rehabilitation of marine environments, and/or
- Any new relevant regulatory requirements.

15.14.3 The Decommissioning and Restoration Plan outlines the process for decommissioning of the WTG, foundations, scour protection, OSP, inter array cables and Offshore ECC. The plan outlines the assumption that the most practicable environmental option is to leave certain structures in situ (e.g. inter array cables, scour protection), however the general principle for decommissioning and of particular relevance to SLVIA is for all surface structures to be removed and it is assumed that the wind turbine generators (WTGs) will be dismantled and completely removed to shore. Piled foundations will be cut at a level below the seabed, buried cables and scour and cable protection left in situ.

15.14.4 In relation to the Dublin Array offshore infrastructure, the programme for decommissioning is expected to be similar in duration to the construction phase. The detailed activities and methodology would be determined later within the project lifetime, but are expected to include:

- Presence and activity of decommissioning vessels with onboard plant for dismantling the offshore infrastructure;
- Dismantling and removal from site of all offshore infrastructure including the offshore WTGs and OSP;
- Removal of offshore cables from under seabed and retention of ducts in-situ to minimise sea-bed disturbance; and
- Use of artificial lighting to enable decommissioning during the hours of darkness.

15.14.5 Whilst details regarding the decommissioning of the Dublin Array offshore infrastructure are currently unknown, considering the worst-case assumption, it is anticipated that the impacts would be similar to or less than those assessed during construction. The assessment presented in section 15.12 in respect of the construction phase, therefore, also applies to the decommissioning phase and is summarised in respect of the landscape and visual receptors below.

15.14.6 The decommissioning of the Dublin Array offshore infrastructure has the potential to give rise to significant effects across both of the seascape character areas assessed, with RSCA 14: Irish Seas Sandbanks and Broad Bays wholly affected and RSCA 15: Dublin Bay only partly affected, owing to the screening effect of intervening landform and the baseline influence from industrial and urban development in Dublin Bay.

15.14.7 In respect of landscape character, there is the potential that significant effects would arise during the decommissioning phase in parts of the following six of the eight LCAs assessed.

- Wicklow Coastal Area LCA – northern part;
- Wicklow: Corridor Area East LCA – localised east facing slopes;
- Wicklow: The Northern Hills LCA - east facing slopes of the coastal hills to the north, west and south of Delgany, and the rising landform to the west of Kilcoole and south-west of Kilpedder;
- Wicklow: Glencree / Glencullen LCA – localised east facing slopes of the hills;

- ▲ Dún Laoghaire: Shanganagh LCA – along coastal edge extending inland where open and/or elevated areas occur; and
- ▲ Fingal: Coastal Howth Head LCA – southern and eastern parts.

15.14.8 These significant effects would extend out to a radius of approximately 12km to the west, 15km to the north-west, and 18km to the south-east, and would relate principally to the close association between the coastal headlands, hills and bays to the seascape where the construction of the Dublin Array offshore infrastructure would occur. The likely effect of the Dublin Array offshore infrastructure on all other LCAs during the decommissioning phase would be not significant.

15.14.9 The Dublin Array offshore infrastructure would also have a significant effect on the corresponding parts of the following designated landscapes;

- ▲ Wicklow Coast AONB;
- ▲ Wicklow Northern Hills AONB; and
- ▲ Howth Special Amenity Area / High Amenity Zone.

15.14.10 In respect of landscape designations, there is the potential for a significant effect to arise on the entire of the Wicklow Coast AONB, and on parts of the Northern Hills AONB and the Howth SAAO / HAZ, chiefly in relation to the proximity of these designated landscapes to the Dublin Array offshore infrastructure decommissioning works, and the strong association between these designated landscapes and the adjacent seascape. The effect on the Wicklow Mountains NP and AONB would be not significant. This finding relates to the greater separation between these designated landscapes and offshore decommissioning works, the weaker association between these designated landscapes and the east coast seascape, the stronger association with the surrounding uplands, and the limited visibility across the NP and AONB as a whole. The Wicklow Mountains are principally defined by the intrinsic character of the immediate and surrounding upland landscapes, albeit with the east coast seascape presenting an important aspect of the wider context.

15.14.11 In respect of viewpoints and visual receptors, there is the potential for significant effects to arise on 21 of the 26 representative viewpoints, and 16 of the 20 principal visual receptors, although only one of the PVRs affected wholly with the remaining 15 affected only partly. This finding indicates that visual effects would likely extend out to approximately 21km from the closest edge of the Dublin Array offshore infrastructure decommissioning works. The majority of the significant effects would likely arise from the combination of the medium-high or medium sensitivity of walkers, residents and road-users along the coast, with the medium-high or high magnitude of change that would result from the introduction of decommissioning works in a seascape context. The seaward outlook forms the principal view for visual receptors along this east coast and the introduction of the offshore decommissioning works will alter the character of many of the views experienced by residents, road and rail-users, walkers and other people spending time on this eastern coast.

15.15 Environmental assessment: cumulative effects

- 15.15.1 While the general principles of the Cumulative Methodology Chapter are followed in this CEA, the specific approach that has been developed for the cumulative assessment of SLVIA guides and informs the detailed assessment and this is described in detail in the SLVIA Methodology Appendix and outlined below.
- 15.15.2 As outlined in DCCAE's 2017 guidance, standardised frameworks for cumulative effects have been developed in relation to offshore wind farm. These frameworks are based on the driver, pressure, states, impacts and responses (DPSIR) model. While Dublin Array adopts the DPSIR model for the cumulative impact assessment of other topics presented in the EIAR, this model is based on the assessment of species and habitats and does not reflect the approach required to ensure an appropriate and robust cumulative SLVIA.
- 15.15.3 The approach taken in the Scotland to assessing cumulative impacts for SLVIA has been considered owing to the maturity of the offshore wind industry which means the UK guidance has been tried and tested through the production and examination of a large number of SLVIAs and improved through updates in response to recommendations from involved parties. The UK guidance that has been developed with specific regard to SLVIA is described below.

SLVIA cumulative assessment

- 15.15.4 In GLVIA3 (Landscape Institute and IEMA, 2013, p120) the guidelines define cumulative landscape and visual effects as those that *"result from additional changes to the landscape and visual amenity caused by the proposal in conjunction with other developments (associated with or separate to it), or actions that occurred in the past, present or are likely to occur in the foreseeable future."*
- 15.15.5 Other proposed developments that have the potential for cumulative effects in combination with the onshore elements of the Project are considered to be those developments that are found within the SLVIA study area, beyond which cumulative effects are limited by distance and lack of intervisibility with other proposed developments.
- 15.15.6 NatureScot is an executive non-departmental public body of the Scottish Government responsible for the country's natural heritage. In the absence of UK wide guidance on the assessment of cumulative landscape and visual effects, NatureScot's guidance is commonly referred to in UK and Irish based EIA. GLVIA3 and NatureScot's guidance provide the basis for the methodology for the cumulative SLVIA undertaken in this EIA.
- 15.15.7 In respect of the proportionality of the CLVIA, NatureScot guidance (NatureScot 2021, p8) states that "The assessment should be proportionate to the likely impacts and all CLVIA should accord with the guidelines within GLVIA3. The emphasis should be on the production of relevant and useful information, highlighting why the proposals assessed have been included and why others have been excluded, rather than the provision of a large volume of information."
- 15.15.8 Cumulative effects are described in the NatureScot guidance as the additional changes caused by a proposed development in conjunction with other similar developments or as the combined effect of a set of developments taken together.

- 15.15.9 Cumulative landscape impacts are those effects that “can change either the physical fabric or character of the landscape, or any special values attached to it” (NatureScot, 2021).
- 15.15.10 Cumulative visual effects are those effects that can be caused by combined or sequential visibility which are explained in the NatureScot guidance as follows;
- 15.15.11 “Combined visibility occurs where the observer is able to see two or more developments from one viewpoint. Assessments should consider the combined effect of all wind farms which are (or would be) visible from relevant viewpoints. Combined visibility may either be in combination (where several wind farms are within the observer’s arc of vision at the same time) or in succession (where the observer has to turn to see the various wind farms).”
- 15.15.12 “Sequential impacts occur when the observer has to move to another viewpoint to see different developments. Sequential impacts should be assessed for travel along regularly-used routes like major roads, railway lines, ferry routes or popular paths. The magnitude of sequential effects will be affected by speed of travel and distance between viewpoints.”
- 15.15.13 It should be noted that cumulative impacts on landscape character and visual amenity are not direct impacts but are instead indirect as they relate to how visibility of the cumulative developments will affect seascape, landscape and visual receptors. The SLVIA cumulative assessment is, therefore, describing perceived rather than physical cumulative effects, as is the case also with the SLVIA main assessment

Long List and Short List

- 15.15.14 A screening process has been carried out by defining an agreed range within which different plans and projects may have a cumulative landscape or visual effect with Dublin Array offshore infrastructure and then identifying those plans and projects within that area. The range for SLVIA has been set at 50km as it is within this radius that there is potential for significant cumulative effects to arise, as based on the professional judgement of the author and from precedents set by jurisdictions and countries with an established offshore renewable energy sectors and where comprehensive guidance has been developed. For example, a 50km study area is used in the SLVIA for the Awel Y Mor Offshore Wind Farm off the north coast of Wales. The main assessment has demonstrated that the outer limits of significant landscape and visual effects will be 21km. It is in respect of this finding that a 50km radius study area will ensure that all potential SLVIA cumulative effects will be captured.
- 15.15.15 The long list has been established via a robust and auditable matrix-based approach that takes into account both the type of project, and a receptor led consideration of potential for cumulative effects to arise. The cumulative long list is detailed in full within Volume 2, Chapter 4: Cumulative Effects Methodology, Annex 1: Offshore long-list.

15.15.16 This long list has been interrogated to scope in projects which will make a notable contribution to the cumulative scenarios, and which will give rise to cumulative interactions that could contribute to cumulative effects and scope out projects that will not. Table 5 presents the groups of development used in the compilation of the long list and sets out their relevance to the cumulative SLVIA taking into account the separation distances from Dublin Array offshore infrastructure and the likely size and influence of the developments in respect of the cumulative baseline.

Table 5 Cumulative Developments relevant to the SLVIA

Development type	Minimum distance from Dublin Array (km)	Relevant to the cumulative SLVIA
Aggregates	154.3	No, owing to the separation distance and the relatively small size and limited influence of the projects.
Aquaculture	45.8	No, owing to the separation distance and the relatively small size and limited influence of the projects.
Carbon Capture and Storage	158.2	No, owing to the separation distance of the projects.
Coastal assets	6.4	No, despite the location of a number of these projects within the 50km study area, the relatively small scale of the operations means the influence on the cumulative context will be limited.
Disposal	70.8	No, owing to the separation distance and the relatively small size and limited influence of the projects.
Dumping at sea	5.5	No, despite the location of a number of these projects within the 50km study area, the relatively small scale of the operations means the influence on the cumulative context will be limited.
Offshore wind farms	2.5	Yes, there are three offshore wind farm projects within 50km of Dublin Array offshore infrastructure to be included in the short list.
Other offshore energy	72.2	No, owing to the separation distance of the projects.
Oil and gas pipelines	26.9	No, owing to the separation distance, the subsurface locations and the relatively small size of the associated above surface construction.
Oil and gas surface and subsurface infrastructure	137.9	Yes, there are two oil and gas terminals within the 50km Study Area to be included in the short list.
Masterplan planning applications	16.1	Yes, potential for cumulative interactions with planning applications associated with Dublin Port.
Shipping ports	20.5	Yes, potential for cumulative interactions with planning applications associated with Dublin Port and covered under 'planning applications'.
Subsea cables	0.00	No, owing to the separation distance, the subsurface location and the relatively small size of the associated above surface construction.

Offshore Wind Farms

15.15.17 The three Phase 1 offshore wind farms that lie within the 50km study area of the Dublin Array offshore infrastructure are Codling Wind Park, Arklow Bank Phase 2 and North Irish Sea Array (NISA). The proximity and size of these offshore wind farms means that they will have a notable influence on the cumulative context and will form the principal focus in the cumulative assessment of the SLVIA.

Dublin Port Masterplan 2012-2040

15.15.18 The Dublin Port Masterplan comprises of a series of proposals to improve the capacity and services provided at the port in a phased programme up to 2040. These improvements include the deepening of the harbour basin and channels, the construction of 3km of quay walls, upgrades to berths, the construction of passenger terminal building and heritage zone, and redevelopment of land to increase shipping container storage.

15.15.19 While these, and other developments associated with the port, have potential to influence the cumulative assessment, this influence will be moderated by the following factors. Firstly, Dublin Port has a strong industrial baseline character that will not be affected by the additional developments. Secondly, the scale of the developments is either smaller or commensurate with the scale of the existing developments in the port and will therefore appear to fit with the existing scale. Thirdly, the enclosure from the existing developments, including the large energy developments on the southern side of the port, means that many of the new developments will be screened in views from the wider surrounding area. These factors will all reduce the potential influence that the developments will contribute to the cumulative context. Furthermore, the developments will be associated with a heavily developed coastline that will be seen distinct from the undeveloped seascape where the principal cumulative interactions of this assessment will occur. These developments are therefore not included in the short-list and are not referenced in the detailed cumulative assessment of the SLVIA.

Short List

15.15.20 In summary, the short-list of the cumulative developments comprises the Phase 1 offshore wind farms which will potentially have the most notable influence on the cumulative assessment. These are the offshore wind farm projects awarded a MAC in 2022 and include Dublin Array, NISA, Oriel Offshore Wind Farm, CWP and Arklow Bank Phase 2. Their cumulative influence relates to their location in the currently undeveloped seascape, the large size and number of the WTGs that make up each of the Phase 1 offshore wind farms, and the broad extents of the WTGs across the seascape.

Projects for cumulative assessment

15.15.21 All relevant projects considered cumulatively alongside Dublin Array offshore infrastructure have been allocated into 'Tiers' as defined within the Cumulative Effects Assessment Methodology chapter (Volume 2, Chapter 4). For the purposes of the cumulative impact assessment, a precautionary construction period has been assumed between the years 2029 to 2032, with offshore construction (excluding preparation works) lasting up to 30 months as a continuous phase within this period (refer to the Project Description Chapter).

15.15.22 The short list of projects selected as relevant to the assessment of impacts to SLVIA are based upon an initial screening exercise undertaken on the long list. Each project has been considered and scoped in or out on the basis of potential cumulative seascape, landscape and visual effects. Both onshore and offshore projects have been considered in this process.

15.15.23 It should be noted that built and operational projects will be included within the cumulative assessment where they have not been included within the environmental characterisation, i.e. they were not operational when the baseline characterisations were undertaken, and/or any residual impact may not have yet fed through to and been captured in estimates of 'baseline' conditions or there is an ongoing effect.

15.15.24 Table 6 identifies those Tier 1, Tier 2, Tier 3 and Phase 1 projects that are relevant to the SLVIA and, therefore, have been scoped into the cumulative assessment. Existing offshore wind farms which form part of the baseline are also listed in the table.

Table 6 Projects for cumulative assessment

Development type	Project Name	Current Status of Development	Data confidence assessment/ phase	Planned programme
Tier 1				
Offshore Wind Farm	Arklow Bank Phase 1	Operational	High – Operational	Existing - forming part of baseline
Tier 2				
No screened projects classed as Tier 2.				
Tier 3				
Offshore Wind Farm	SSE Renewables Arklow Bank Phase 2	Pre-consent	Medium – Phase 1 (MAC awarded) Scoping report and EIA available (EIA submitted Q2 2024). Foreshore licence (reference FS007339) granted for site	Assumed - construction will wholly or partly overlap with Dublin Array. Installation of up to 56 WTGs, two OSPs and two export cables. Construction 2026-2030.

Development type	Project Name	Current Status of Development	Data confidence assessment/ phase	Planned programme
			investigations (2022-2027). Site investigations have been undertaken.	
Offshore Wind Farm	Statkraft - North Irish Sea Array (NISA)	Pre-consent	Medium - Phase 1 (MAC awarded). Scoping report and EIA available (EIA submitted Q2 2024). Initial foreshore licence granted 2021. Site investigations have been undertaken.	Assumed - construction will wholly or partly overlap with Dublin Array. Installation of up to 49 WTGs, one OSP and two export cables. Offshore construction 2027-2029 with piling anticipated in 2028.
Offshore Wind Farm	Fred. Olsen Seawind, EDF Energies - Codling Wind Park	Pre-consent	Medium – Phase 1 (MAC awarded). Scoping report and EIA available (EIA submitted Q2 2024). Initial foreshore licence granted in 2005, more recently in 2021.	Assumed - construction will partly or wholly overlap with Dublin Array. Installation of up to 75 WTGs, three export cables and three OSPs. Commencement in 2027 with offshore construction lasting 2-3 years.

Scope of the SLVIA Cumulative Assessment

15.15.25 In accordance with guidance (NatureScot, 2021), the cumulative SLVIA presented in this EIAR assesses the combined effect of a set of developments taken together. The main focus of the cumulative SLVIA is on the combined effect of the construction and operation of the Dublin Array offshore infrastructure with the Phase 1 offshore wind farms including Arklow Bank Phase 2, CWP and NISA.

- 15.15.26 The main SLVIA in sections 15.12 and 15.13 of this chapter considers the effects of the construction and operation of the offshore infrastructure cumulatively with Arklow Bank Phase 1 offshore infrastructure, as this is the only relevant operational project which requires assessment, as listed in Table 6 and shown in the plan of cumulative developments in Figure 3.15.16 (SLVIA GIS Figures Appendix). The very limited visibility of Arklow Bank Phase 1 from the landscape and visual receptors assessed in respect of Dublin Array offshore infrastructure means that it has a very limited influence on the main SLVIA, as shown in Figure 3.15.17 (SLVIA GIS Figures Appendix).
- 15.15.27 The cumulative SLVIA in Section 15.15 of this chapter considers the effects of the construction and operation of the Dublin Array offshore infrastructure cumulatively with the proposed Arklow Bank Phase 2, CWP, and NISA as these are the relevant proposed projects with potential to influence the cumulative effect of the Dublin Array offshore infrastructure. These projects are listed in Table 6 and illustrated in Figure 3.15.16 (SLVIA GIS Figures Appendix).
- 15.15.28 CWP comprises 60 WTGs at a height of 314 m; NISA comprises 35 WTGs at a height of 315 m; Arklow Bank Phase 2 comprises 47 WTGs at a height of 287 m; and Arklow Bank Phase 1 comprises 7 WTGs at a height of 124 m.
- 15.15.29 CWP will be the closest of the cumulative developments, located a minimum of approximately 3km south-east of Dublin Array offshore infrastructure and is the most relevant to the assessment owing to this close proximity. Existing Arklow Bank Phase 1 and proposed Arklow Bank Phase 2 are located a minimum of approximately 38km and 26km respectively to the south of Dublin Array offshore infrastructure and while relevant to some of the more southerly receptors, the influence on the cumulative context is limited by Wicklow Head which creates a visual divide and notably reduces inter-visibility. NISA will be located a minimum of approximately 35km to the north of Dublin Array offshore infrastructure and while relevant to some of the more northerly receptors, the influence on the cumulative context is limited by Howth Head which creates a visual divide and will notably reduce inter-visibility.

Cumulative impacts on seascape / landscape character

- 15.15.30 The detailed cumulative assessment for each seascape and landscape receptor in respect of the operational and maintenance phase of the Dublin Array offshore infrastructure is presented below. The baseline description and assessment of sensitivity for each seascape and landscape receptor is presented in section 15.7, the assessment of effects during the construction phase presented in section 15.12, and the assessment of effects during the operational phase presented in section above 15.13.

Seascape Character Types / Regional Seascape Character Areas

RSCA 14: Irish Sea Sandbanks and Broad Bays

Main Assessment

15.15.31 The effect of the Dublin Array offshore infrastructure on RSCA 14 during the construction and operational phases will be significant at a Major-moderate or Moderate level. This will result from the combination of the medium-high sensitivity of the RSCA and the medium-high or medium magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.32 The most relevant cumulative developments to this assessment are CWP and Arklow Bank Phase 2 which will be located in the Irish Sea at a minimum of 3km south-east and 26km south of Dublin Array offshore infrastructure respectively. CWP will be located a minimum of approximately 13km from the closest part of the RSCA to the south of Greystones and will comprise of 60 WTGs at a height of 314 m in height. Arklow Bank Phase 2 will be located a minimum of approximately 8km from the closest part of the RSCA at Wicklow Head and will comprise of 47 WTGs at a height of 287 m in height, although typically a large number of the WTGs will be obscured from the coast north of Wicklow, by Wicklow Head. The cumulative ZTVs in Figures 3.15.18 and 3.15.19 (SLVIA GIS Figures Appendix) show that intervisibility with Dublin Array offshore infrastructure will be practically continuous across RSCA 14, in respect of CWP, and more variable in respect of Arklow Bank Phase 2 with visibility becoming less extensive further north along the coast of the RSCA.

15.15.33 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium-high**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the seascape will be altered by the presence of construction vessels, the emergence of offshore WTGs and OSP, and the use of artificial lighting to aid construction during hours of darkness. The cumulative baseline will comprise of the construction of CWP and Arklow Bank Phase 2 which will occupy a large proportion of the seascape extending from the north-east to the south-east.

15.15.34 The addition of the Dublin Array offshore infrastructure construction will occupy the seascape to the north-east and although there is separation from CWP, it will be seen to complete the extent of development in this direction. The construction activity and emerging presence of the Dublin Array offshore infrastructure will make a notable addition to the influence of this type of development and reduction in the undeveloped seascape.

15.15.35 During the operational phase the cumulative magnitude of change of the MDO will be **Medium-high**. The cumulative magnitude of change will relate principally to the additional horizontal extent that Dublin Array offshore infrastructure will form relative to the broad horizontal extent already formed by the cumulative baseline of CWP and Arklow Bank Phase 2. While there is a substantial gap between CWP and Arklow Bank Phase 2 and a gap between CWP and Dublin Array offshore infrastructure, these offshore wind farms will collectively occupy the majority of the seascape. Dublin Array offshore infrastructure will be seen to the north-east and as the closest of the offshore wind farms and will have a notable effect on the character of the seascape and adjacent coastline.

Cumulative Significance of Effect

15.15.36 The cumulative effect will be significant at a **Major-moderate** level owing to a combination of the **Medium-high** sensitivity and the **Medium-high** magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.37 The cumulative effect of the ADOs on this RSCA during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

RSCA 15: Dublin Bay

Main Assessment

15.15.38 The effect of the Dublin Array offshore infrastructure on RSCA 15 during the construction and operational phases will be significant at a Major-moderate or Moderate level between Killiney and Dublin Port and between Clontarf and Howth Head. This will result from the combination of the Medium-high or Medium sensitivity of the RSCA and the Medium-high or Medium magnitude of change during both the construction and operational phases. In the remaining parts of this RSCA between Dublin Port and Clontarf the effect will be not significant at a Moderate-minor level owing to the Medium sensitivity and the Medium-low magnitude of change. Where there will be no visibility, there will be no effect.

Cumulative Magnitude of Change

15.15.39 The cumulative assessment considers the effect of adding the Dublin Array offshore infrastructure to a cumulative context comprising CWP and Arklow Bank Phase 2 which will be located to a minimum of 3km south-east and 26km south of Dublin Array offshore infrastructure respectively. CWP will comprise 60 WTGs at a height of 314 m in height and will be located a minimum of approximately 20km from Dalkey Island, which is the closest part of the RSCA to CWP. Arklow Bank Phase 2 will comprise 47 WTGs at a height of 287 m in height and will be located a minimum of approximately 38km from the RSCA, making it too distant to have a notable bearing on the cumulative assessment.

15.15.40 The cumulative ZTVs in Figure 3.15.18 (SLVIA GIS Figures Appendix) show that intervisibility between CWP and Dublin Array offshore infrastructure will be practically continuous across much of the seascape but variable along the adjacent coastline. The fullest and closest range visibility will occur between Killiney and Dalkey Island, from where CWP will occur at 20km and Dublin Array offshore infrastructure will occur at a range of 10 to 11km.

15.15.41 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium** across the seascape between Killiney and Dalkey Island and **Low** between Dalkey Island and Howth Head with **No change** in those parts where there will be no visibility of the Dublin Array offshore infrastructure. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the seascape will be altered by the presence of construction vessels, the emergence of offshore WTGs and OSP, and the use of artificial lighting to aid construction during hours of darkness. The cumulative baseline will comprise the construction of CWP which will occupy a proportion of the seascape to the south-east at a minimum range of 20km. The addition of the Dublin Array offshore infrastructure construction will occupy the seascape to the east of Killiney and Dalkey Island at a minimum of 10km, to the south-east of Dublin at a minimum of 17km and the south of Howth Head at a minimum of 10km. While the influence from CWP will be moderated by the separation distance which in turn will reduce the scale of the construction components, the closer range construction activity and emerging presence of the Dublin Array offshore infrastructure will make a notable addition to the influence of this type of development and reduction in the undeveloped seascape.

15.15.42 During the operational phase the cumulative magnitude of change of the MDO will be **Medium** between Killiney and Dalkey Island and **Low** between Dalkey Island and Howth Head with **No change** in those parts where there will be no visibility of the Dublin Array offshore infrastructure. The cumulative magnitude of change will relate principally to the additional horizontal extent that Dublin Array offshore infrastructure will form relative to the more limited horizontal extent already formed by the cumulative baseline of CWP. The addition of the Dublin Array offshore infrastructure will be seen to extend the influence of development within the seascape and bring it closer to the coastal edge. The cumulative magnitude of change will be moderated by the location of Dublin Array offshore infrastructure in the same sector of the view as CWP, such that the open seascape to the north-east will remain unaffected, as well as the more distant location of CWP which limits its influence on the cumulative context.

Cumulative Significance of Effect

15.15.43 The cumulative effect of the MDO across the seascape and between Killiney and Dalkey Island will be significant at a **Moderate** level owing to a combination of the **Medium-high** or **Medium** sensitivity and the **Medium** magnitude of change. The cumulative effect on all remaining parts will be **not significant** at **Moderate-minor** or **Minor** level owing to the **Low** magnitude of change and there will be **No effect** where there will be no change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.44 The cumulative effect of the ADOs on this RSCA during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Landscape Character Areas

Wicklow: Coastal Area LCA

Main Assessment

15.15.45 The effect of the Dublin Array offshore infrastructure on this LCA during the construction and operational phases will be significant at a Major-moderate or Moderate level across the northern and central parts of the LCA and not significant at a Moderate-minor level across the southern part. The significant effect will result from the combination of the Medium-high sensitivity of the LCA, and the Medium-high, Medium or Medium-low magnitude of change and the not significant effect will result from the Low magnitude of change. Where there is no visibility there will be no change and therefore No effect.

Cumulative Magnitude of Change

15.15.46 The relevant cumulative development to this assessment is CWP which will be located a minimum of 3km to the south of Dublin Array offshore infrastructure and offset by a minimum of 13km from the closest part of the LCA south of Greystones. CWP will comprise 60 WTGs at a height of 314 m in height. The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows combined theoretical visibility to be practically continuous across the LCA. Actual visibility along the coast, will largely correlate with theoretical visibility, owing to the openness of this interface between land and sea, and typically visibility will dissipate within the hinterland, owing to the increasing enclosure of the tree cover with distance from the coast.

15.15.47 During the construction phase the cumulative magnitude of change of the MDO will be **Medium-high** along the coast to the north and south of Greystones and **Medium** further inland from this section, **Medium** to the south of Kilcoole and **Medium-low** further inland from this section. The cumulative magnitude of change will be **Low** where visibility is more limited and distant and **No change** to the south of Wicklow where there will be no visibility of the Dublin Array offshore infrastructure and, therefore, no cumulative effect.

- 15.15.48 It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the seascape adjacent to this LCA will be altered by the presence of construction vessels, the emergence of offshore WTGs and OSP, and the use of artificial lighting to aid construction during hours of darkness. The cumulative baseline will comprise the construction of CWP which will occupy a proportion of the seascape to the south-east of Greystones at a minimum of 14km and east of Newcastle at a minimum of 14km. The addition of the Dublin Array offshore infrastructure construction will occupy the seascape to the east and north-east of Greystones at a minimum of 9km and the north-east of Newcastle at a minimum of 12km. While the influence from CWP will be moderated by the separation distance from the LCA, it will still have an effect on the character of this coastal landscape and the closer range construction activity and emerging presence of the Dublin Array offshore infrastructure will make a notable addition to the influence of this type of development and the reduction in the undeveloped seascape.
- 15.15.49 During the operational phase the cumulative magnitude of change of the MDO will be **Medium-high** along the coast to the north and south of Greystones and **Medium** further inland from this section, **Medium** to the south of Kilcoole and **Medium-low** further inland from this section. The cumulative magnitude of change will be **Low** where visibility is more limited and distant and **No change** to the south of Wicklow where there will be no visibility of the Dublin Array offshore infrastructure and, therefore, no cumulative effect.
- 15.15.50 The cumulative magnitude of change will relate principally to the additional horizontal extent that Dublin Array offshore infrastructure will form within the open seascape relative to the horizontal extent already formed by the cumulative baseline of CWP. The addition of the Dublin Array offshore infrastructure will be seen to extend the influence of development across the seascape to the east and north-east of this LCA and bring it closer to the coastal edge. The 39 WTGs at a height of 309.6 m in height will be readily visible from much of the coastline and seen in combination with the 60 WTGs at a height of 314 m in height, which form CWP and together these offshore wind farms will occupy a notable extent of the open seascape that characterises much of this coastline. Further inland, the cumulative magnitude of change will reduce to medium where visibility of Dublin Array offshore infrastructure and CWP becomes more limited and with no change occurring where there will be no visibility.
- 15.15.51 The cumulative magnitude of change along the coast to the south of Kilcoole will be medium. This relates to a combination of factors including an increase in the minimum separation distance from Dublin Array offshore infrastructure of approximately 10 to 20km, the oblique angle at which the array area sits relative to the orientation of the LCA and, as a result, the smaller proportion of the seaward aspect that the array area will occupy. The presence of tree cover inland will further reduce visibility and, therefore, also the influence of the offshore infrastructure, such that the magnitude of change will reduce to medium-low.

Cumulative Significance of Effect

15.15.52 The cumulative effect of the Dublin Array offshore infrastructure MDO on this LCA during the construction and operational phases will be significant at a **Major-moderate** level in the northern part, significant at a **Moderate** level in the central part and **not significant** at a **Moderate-minor** level in the southern part. This will result from the combination of the medium-high sensitivity of the LCA and the medium-high, medium or low cumulative magnitude of change. There will be **No effect** where there is no visibility across the LCA to the south of Wicklow. All effects will be adverse, reversible, and short term in respect of construction effects and long term in respect of operational effects.

Alternative Design Options

15.15.53 The cumulative effect of the ADOs on this LCA during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: Corridor Area East LCA

Main Assessment

15.15.54 The effect of the Dublin Array offshore infrastructure during the construction and operational phases will be significant at a Moderate level on those localised parts of the LCA within 11 to 16km from where actual visibility occurs. This will result from the combination of the Medium sensitivity of the LCA and the Medium magnitude of change. In those parts of the LCA beyond 16km from where actual visibility occurs the effect will be not significant at a Moderate-minor level. This will result from the combination of the Medium sensitivity of the LCA and the Medium-low magnitude of change. Where there is no visibility, there will be No change, and therefore no effect.

Cumulative Magnitude of Change

15.15.55 The relevant cumulative development to this assessment is CWP which will be located a minimum of 3km to the south of Dublin Array offshore infrastructure and offset by a minimum of 11km from the closest part of the LCA to the north of Greystones. CWP will comprise 60 WTGs at a height of 314 m in height. The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows combined theoretical visibility to be relatively continuous across the LCA, although actual visibility will be greatly reduced by intervening landform, tree cover and built form that occurs across the hinterland.

- 15.15.56 During the construction phase the cumulative magnitude of change of the MDO will be **Medium** within an 11 to 16km and in the following localised parts; across the east facing slopes of the coastal hills to the north, west and south of Delgany, and the rising landform to the west of Kilcoole and south-west of Kilpedder. A **Medium-low** or **Low** cumulative magnitude of change will occur in the remaining parts of the 11 to 16km range and further inland and south from this section beyond 16km. There will be **No change** in those parts where there will be no visibility of the Dublin Array offshore infrastructure.
- 15.15.57 It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the seascape adjacent will be altered by the presence of construction vessels, the emergence of offshore WTGs and OSP, and the use of artificial lighting to aid construction during hours of darkness. The cumulative baseline will comprise the construction of CWP which will occupy a proportion of the seascape to the south-east of the northern part of the LCA at a minimum of 15km and east of the southern part of the LCA at a minimum of 16km. The addition of the Dublin Array offshore infrastructure construction will occupy the seascape to the east of the northern part of the LCA at a minimum of 11km and the north-east of the southern part at a minimum of 13km. The inland character of this LCA means that visibility is more restricted by landform, tree cover and built form than along the coastal LCAs. This means that it will only be from the more open, elevated and east facing parts of the LCA within 11 to 16km that a Medium cumulative magnitude of change will arise. In other remaining parts where more limited inter-visibility of the construction associated with Dublin Array offshore infrastructure and CWP occurs, the cumulative magnitude of change will be **Medium-low** or **Low** and with **No change** arising where there will be no visibility.
- 15.15.58 During the operational phase the cumulative magnitude of change of the MDO will be **Medium** within an 11 to 16km and in the following localised parts; across the east facing slopes of the coastal hills to the north, west and south of Delgany, and the rising landform to the west of Kilcoole and south-west of Kilpedder. A **Medium-low** or **Low** cumulative magnitude of change will occur in the remaining parts of the 11 to 16km range and further inland and south from this section beyond 16km. There will be **No change** in those parts where there will be no visibility of the Dublin Array offshore infrastructure.
- 15.15.59 The cumulative magnitude of change will relate principally to the additional horizontal extent that Dublin Array offshore infrastructure will form in the open seascape relative to the horizontal extent already formed by the cumulative baseline of CWP. The addition of the Dublin Array offshore infrastructure will be seen to extend the influence of development across the seascape to the east and north-east of this LCA and bring it closer to the coastal edge. The 39 WTGs at a height of 309.6 m in height of Dublin Array and the 60 WTGs at a height of 314 m in height of CWP will, however, only be visible or partly visible from the more open, elevated and east facing parts of the LCA within 11 to 16km and here the cumulative magnitude of change will be **Medium**.

Significance of Cumulative Effect

15.15.60 The cumulative effect of the Dublin Array offshore infrastructure MDO during the construction and operational phases will be significant at a **Moderate** level on those localised parts of the LCA within 11 to 16km from where actual visibility occurs. This will result from the combination of the medium sensitivity of the LCA and the medium magnitude of change. In those remaining parts of the LCA from where actual visibility occurs the effect will be **not** significant at a **Moderate-minor** or **Minor** level. This will result from the combination of the medium sensitivity of the LCA and the medium-low or low magnitude of change. Where there is **No change**, there will be **No effect**.

Alternative Design Options

15.15.61 The cumulative effect of the ADOs on this LCA during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: The Northern Hills LCA

Main Assessment

15.15.62 The effect of the Dublin Array offshore infrastructure on this LCA during the construction and operational phases will be significant at a Major-moderate or Moderate level across the east facing slopes and summits of the hills. This will result from the combination of the Medium-high sensitivity of the LCA and the Medium-high or Medium magnitude of change. In those parts of the LCA where there will be no visibility, there will be no change and No effect.

Cumulative Magnitude of Change

15.15.63 The relevant cumulative development to this assessment is CWP which will be located a minimum of 3km to the south of Dublin Array offshore infrastructure and offset by a minimum of approximately 11km from the eastern boundary of the LCA. Dublin Array offshore infrastructure will comprise 39 WTGs at a height of 309.6 m and CWP will comprise 60 WTGs at a height of 314 m in height. The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows combined theoretical visibility to be concentrated in a north-south band across the centre of this small LCA, with no visibility across the eastern and western parts owing to landform screening.

15.15.64 During the construction phase the cumulative magnitude of change of the MDO will be **Medium-high** or **medium** within the central band where inter-visibility is concentrated and there will be **No change** in the western and eastern bands where there will be no visibility of the Dublin Array offshore infrastructure or CWP.

15.15.65 It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the seascape visible from the elevated east facing slopes of this LCA will be altered by the presence of construction vessels, the emergence of offshore WTGs and OSP, and the use of artificial lighting to aid construction during hours of darkness. The cumulative baseline will comprise the construction of CWP which will occupy a proportion of the seascape to the south-east of the LCA at a minimum of approximately 18km. The addition of the Dublin Array offshore infrastructure construction will occupy the seascape to the east and north-east of the LCA at a minimum of 11km. The inland character of this LCA means that visibility is more restricted by landform and tree cover than along the coastal LCAs. This means that it will only be from the more open, elevated and east facing central band of the LCA that a Medium-high or Medium cumulative magnitude of change will arise. In other remaining parts, where there is no visibility, there will be No change.

15.15.66 During the operational phase the cumulative magnitude of change of the MDO will be **Medium-high** or **medium** within the central band where inter-visibility is concentrated and there will be **No change** in the western and eastern bands where there will be no visibility of the Dublin Array offshore infrastructure or CWP.

15.15.67 The cumulative magnitude of change will relate principally to the additional horizontal extent that Dublin Array offshore infrastructure will form within the open seascape relative to the horizontal extent already formed by the cumulative baseline of CWP. The addition of the Dublin Array offshore infrastructure will be seen to extend the influence of development across the seascape to the east and north-east of this LCA and bring it closer to the coastal edge. The 39 WTGs at a height of 309.6 m in height of Dublin Array and the 60 WTGs at a height of 314 m in height of CWP will, however, only be visible or partly visible from the more open, elevated and east facing parts of the LCA and here the cumulative magnitude of change will be Medium-high or Medium.

Cumulative Significance of Effect

15.15.68 The cumulative effect of the Dublin Array offshore infrastructure MDO on this LCA during the construction and operational phase will be significant at a **Major-moderate** or **Moderate** level across the central band of the LCA. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-high** or **Medium** magnitude of change. In the eastern and western parts of the LCA where there will be no visibility, there will be **No change** and **No effect**.

Alternative Design Options

15.15.69 The cumulative effect of the ADOs on this LCA during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: Glencree / Glencullen LCA

Main Assessment

15.15.70 The effect of the Dublin Array offshore infrastructure on this LCA during the construction and operational phases will be significant at a Moderate level in those localised parts where visibility will occur. This will result from the combination of the Medium-high sensitivity of the LCA and the Medium-low magnitude of change. In the remaining parts there will either be a not significant effect at a Moderate-minor level owing to limited visibility and a Low magnitude of change and where there will be no visibility, there will be No change and No effect.

Cumulative Magnitude of Change

15.15.71 The relevant cumulative development to this assessment is CWP which will be located a minimum of 3km to the south of Dublin Array offshore infrastructure and offset by a minimum of approximately 11km from the eastern boundary of the LCA. Dublin Array offshore infrastructure will comprise 39 WTGs at a height of 309.6 m and CWP will comprise 60 WTGs at a height of 314 m in height. The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows combined theoretical visibility to be concentrated in the northern part of the LCA, with limited or no visibility occurring across the southern part. The patch of visibility covers the low hills which surround the village of Enniskerry. While commercial forestry and other tree cover will notably reduce the extent of actual visibility, there are also open upland areas of farmland from where the offshore infrastructure will be visible, most notably on the north-eastern side of the village. Visibility of Dublin Array offshore infrastructure will occur from a minimum of approximately 14 to 19km.

15.15.72 During the construction phase the cumulative magnitude of change of the MDO will be **Medium-low** or **Low** across the north-eastern and northern parts of the LCA where inter-visibility of Dublin Array offshore infrastructure and CWP will be concentrated. There will be **No change** in the southern parts where there will be no visibility of the Dublin Array offshore infrastructure or CWP.

15.15.73 It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the seascape visible from the elevated and open east facing slopes of this LCA will be altered by the presence of construction vessels, the emergence of offshore WTGs and OSP, and the use of artificial lighting to aid construction during hours of darkness. The cumulative baseline will comprise the construction of CWP which will occupy a proportion of the seascape to the south-east of the LCA at a minimum of approximately 22km. The addition of the Dublin Array offshore infrastructure construction will occupy the seascape to the east and north-east of the LCA at a minimum of 14km. The inland character of this LCA means that visibility is more restricted by landform and forestry than along the coastal LCAs. Furthermore, the separation distance from CWP means that the construction works will have a limited influence on the cumulative baseline of the LCA. This in turn limits the cumulative effect of the Dublin Array offshore infrastructure which, although appearing closer and occupying a portion of the undeveloped seascape to the east, will also have a limited influence owing to its separation distance.

15.15.74 During the operational phase the cumulative magnitude of change of the MDO will be **Medium-low** or **Low** across the north-eastern and northern parts of the LCA where inter-visibility will be concentrated. There will be No change in the southern parts where there will be no visibility of the Dublin Array offshore infrastructure or CWP.

15.15.75 The cumulative magnitude of change is moderated by the limited extent of the LCA that will be affected by the cumulative offshore infrastructure, the limited extent to which the cumulative offshore infrastructure will be fully visible from this LCA, the primary influence of the surrounding hills and forestry on the character of the LCA, and the secondary influence from the more distant seascape. While Dublin Array offshore infrastructure will form an additional horizontal extent within the open seascape relative to the horizontal extent already formed by the cumulative baseline of CWP, they will both appear as relatively distant features and will occupy only a small proportion of the much wider landscape context that defines this LCA.

15.15.76 Further south and west into Glencree, the intervening landform combined with the enclosure of forest and other tree cover means there is mostly no visibility with a few small patches of low-level visibility. This means there will either be no change or a negligible magnitude of change.

Cumulative Significance of Effect

15.15.77 The cumulative effect of the Dublin Array offshore infrastructure MDO on this LCA during the construction and operational phases will be not significant at a **Moderate** level and with **No effect** where there will be no visibility. In those localised parts where visibility will occur, the **Medium-low** or **Low** cumulative magnitude of change will combine with the **Medium-high** sensitivity to a not significant effect. The screening effect of landform and forestry will notably reduce the extents of actual visibility across this LCA.

Alternative Design Options

15.15.78 The cumulative effect of the ADOs on this LCA during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: North East Mountain Lowlands LCA

Main Assessment

15.15.79 The effect of the Dublin Array offshore infrastructure on this LCA during the construction and operational phases will be not significant at a Moderate or Moderate-minor level. This will result from the combination of the Medium-high sensitivity of the LCA and the Medium-low or Low magnitude of change in those localised parts where actual visibility will occur. Across the majority of the LCA there will be no visibility, and, therefore, there will be No change and No effect.

Cumulative Magnitude of Change

- 15.15.80 The most relevant cumulative development to this assessment is CWP which will be located a minimum of 3km to the south of Dublin Array offshore infrastructure, and offset by a minimum of approximately 17km from the eastern boundary of the LCA while Dublin Array offshore infrastructure will be offset a minimum of approximately 12km. Dublin Array offshore infrastructure will comprise 39 WTGs at a height of 309.6 m and CWP will comprise 60 WTGs at a height of 314 m in height.
- 15.15.81 The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows the very limited extent of theoretical visibility in respect of this extensive LCA. This is due to the LCA being largely contained in the valley of the Vartry River, with the band of upland hills to the east forming enclosure and screening the eastern coast. While other patches of visibility occur on the upper western slopes of the LCA, to the west of Great Sugar Loaf Mountain and north-east of Roundwood, these show low levels of visibility indicating that the full extent of the offshore infrastructure will be largely screened by the surrounding hills and visible from ranges of 16 to 23km. In those large parts of the LCA where there will be no visibility, there will be No change. While patches of theoretical visibility occur along the eastern hills included in the LCA, extensive forestry will reduce the extents of theoretical visibility.
- 15.15.82 During the construction phase the cumulative magnitude of change of the MDO will be **Medium-low** or **Low** where localised patches of actual visibility occur over the east facing slopes from a minimum of approximately 16 to 19km. There will be **No change** across the majority of the LCA where there will be no visibility of the Dublin Array offshore infrastructure or CWP.
- 15.15.83 It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the seascape visible from the elevated and open east facing slopes of this LCA will be altered by the presence of construction vessels, the emergence of offshore WTGs and OSP, and the use of artificial lighting to aid construction during hours of darkness. The cumulative baseline will comprise the construction of CWP which will occupy a proportion of the seascape to the south-east and east of the LCA, visible at a minimum of approximately 17km. The addition of the Dublin Array offshore infrastructure construction will occupy the seascape to the east and north-east of the LCA visible at a minimum of approximately 16km. The inland character of this LCA means that visibility is more restricted by landform and forestry than along the coastal LCAs. Furthermore, the separation distance from CWP means that the construction works will have a limited influence on the cumulative baseline of the LCA. This in turn limits the cumulative effect of the Dublin Array offshore infrastructure which, although appearing closer and occupying a portion of the undeveloped seascape to the east, will also have a limited influence owing to its separation distance.
- 15.15.84 During the operational phase the cumulative magnitude of change of the MDO will be **Medium-low** or **Low** where localised patches of actual visibility occur over the east facing slopes from a minimum of approximately 16 to 19km. There will be **No change** across the majority of the LCA where there will be no visibility of the Dublin Array offshore infrastructure or CWP.

15.15.85 The cumulative magnitude of change is moderated by the limited extent of the LCA that will be affected by the cumulative offshore infrastructure, the limited extent to which the cumulative offshore infrastructure will be fully visible from this LCA, the primary influence of the surrounding hills and forestry on the character of the LCA, and the secondary influence from the more distant seascape. While Dublin Array offshore infrastructure will form an additional horizontal extent within the open seascape relative to the horizontal extent already formed by the cumulative baseline of CWP, they will both appear as relatively distant features and will occupy only a small proportion of the much wider landscape context that defines this LCA.

Cumulative Significance of Effect

15.15.86 The cumulative effect of the Dublin Array offshore infrastructure MDO on this LCA during the construction and operational phases will be not significant at **Moderate** or **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium-low** or **Low** cumulative magnitude of change in those localised parts where actual visibility will occur. Across the majority of the LCA there will be no visibility, and, therefore, there will be **No change** and **No effect**.

Alternative Design Options

15.15.87 The cumulative effect of the ADOs on this LCA during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: Mountain Uplands LCA

Main Assessment

15.15.88 The effect of the Dublin Array offshore infrastructure on this LCA during the construction and operational phases will be not significant at a Moderate or Moderate-minor level. This will result from the combination of the Medium-high sensitivity of the LCA and the Medium-low or Low magnitude of change. Where there will be no visibility, there will be No change and No effect.

Cumulative Magnitude of Change

15.15.89 The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows that the majority of this LCA will not be affected by visibility of the Dublin Array offshore infrastructure and CWP, largely owing to the screening effect of other hills on the eastern side of the Mountain Uplands. There is, however, a localised area in the north-east of the LCA, where theoretical visibility is shown to occur and includes Djouce Mountain (725 m AOD), War Hill (686 m AOD), Torduff (642 m AOD) and Kippure (757 m AOD). The ZTV shows theoretical visibility to extend across the middle to upper, east-facing slopes of these hills. Actual visibility will be further reduced in those parts where forestry occurs.

- 15.15.90 During the construction phase the cumulative magnitude of change of the MDO will be **Low** across the localised north-eastern parts of the LCA where localised patches of actual visibility occur. There will be **No change** across the remaining majority of the LCA where there will be no visibility of the Dublin Array offshore infrastructure or CWP.
- 15.15.91 It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the seascape visible from the elevated and open east facing slopes of this LCA will be altered by the presence of construction vessels, the emergence of offshore WTGs and OSP, and the use of artificial lighting to aid construction during hours of darkness. The cumulative baseline will comprise the construction of CWP which will occupy a proportion of the seascape to the south-east and east of the LCA, visible at a minimum of approximately 25km.
- 15.15.92 The addition of the Dublin Array offshore infrastructure construction will occupy the seascape to the east and north-east of the LCA visible at a minimum of approximately 18km. The inland character of this LCA means that visibility is more restricted by landform and forestry than along the coastal LCAs. Furthermore, the separation distance from the distant CWP means that the construction works will have a limited influence on the cumulative baseline of the LCA. The Dublin Array offshore infrastructure which, although appearing closer than CWP, will also have a limited influence owing to its minimum separation distance of 18km.
- 15.15.93 During the operational phase the cumulative magnitude of change of the MDO will be **Low** where localised patches of actual visibility occur over the east facing slopes from a minimum of approximately 18 to 27km. There will be **No change** across the majority of the LCA where there will be no visibility of the Dublin Array offshore infrastructure or CWP.
- 15.15.94 The cumulative magnitude of change is moderated by the limited extent of the LCA that will be affected by the cumulative offshore infrastructure, the limited extent to which the cumulative offshore infrastructure will be fully visible from this LCA, the primary influence of the surrounding hills and forestry on the character of the LCA, and the secondary influence from the more distant seascape. While Dublin Array offshore infrastructure will form an additional horizontal extent within the open seascape relative to the horizontal extent already formed by the cumulative baseline of CWP, they will both appear as relatively distant features and will occupy only a small proportion of the much wider landscape context that defines this LCA. Actual visibility across other parts of the LCA will be limited to the tops and upper slopes of the highest hills and their more distant position relative to the array area means the cumulative magnitude of change will be reduced to negligible.

Cumulative Significance of Effect

- 15.15.95 The cumulative effect of the Dublin Array offshore infrastructure MDO on this LCA during the construction and operational phases will be not significant at **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Low** cumulative magnitude of change in those localised parts where actual visibility will occur. Across the majority of the LCA there will be no visibility, and, therefore, there will be **No change** and **No effect**.

Alternative Design Options

15.15.96 The cumulative effect of the ADOs on this LCA during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Dún Laoghaire: Shanganagh LCA

Main Assessment

15.15.97 The effect of Dublin Array offshore infrastructure on this LCA during the construction and operational phases will be significant at a Major-moderate or Moderate level. This will result from the combination of the Medium-high sensitivity of the LCA and the Medium-high or Medium magnitude of change. In the remaining parts there will be No effect as there will be no visibility.

Cumulative Magnitude of Change

15.15.98 The relevant cumulative development to this assessment is CWP which will be located a minimum of 3km to the south of Dublin Array offshore infrastructure and offset by a minimum of approximately 19km from the eastern boundary of the LCA. Dublin Array offshore infrastructure will comprise 39 WTGs at a height of 309.6 m and CWP will comprise 60 WTGs at a height of 314 m in height. The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows combined theoretical visibility to be practically continuous across the LCA, although actual visibility will be restricted by tree cover and buildings within the LCA. Visibility of Dublin Array offshore infrastructure will occur from a minimum of approximately 11 to 12km.

15.15.99 During the construction phase the cumulative magnitude of change of the MDO will be **Medium** or **Medium-low** across those parts of the LCA where inter-visibility will occur, and there will be a **Negligible** cumulative magnitude of change or **No change** in the remaining parts where there will be limited or no visibility of the Dublin Array offshore infrastructure or CWP.

15.15.100 It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the seascape visible from the open parts of this LCA will be altered by the presence of construction vessels, the emergence of offshore WTGs and OSP, and the use of artificial lighting to aid construction during hours of darkness. The cumulative baseline will comprise the construction of CWP which will occupy a proportion of the seascape to the south-east of the LCA at a minimum of approximately 19km. The addition of the Dublin Array offshore infrastructure construction will occupy the seascape to the east and north-east of the LCA at a minimum of 11km.

15.15.101 The cumulative magnitude of change will be moderated by the more limited influence from the construction of CWP owing to its oblique alignment to the south-east compared to the direct alignment of Dublin Array offshore infrastructure to the east, and with CWP located at a greater separation distance than the Dublin array offshore infrastructure. The construction of Dublin Array offshore infrastructure will, nonetheless, form a notable addition to the cumulative influence on this LCA by extending construction across the adjacent seascape area. This influence will be reduced inland where intervening tree cover and landform will reduce the extent to which CWP especially will be visible and here the cumulative magnitude of change will be Low.

15.15.102 During the operational phase the cumulative magnitude of change of the MDO will be **Medium** or **Medium-low** across those parts of the LCA where inter-visibility will occur, and there will be a **Negligible** cumulative magnitude of change or **No change** in the remaining parts where there will be limited or no visibility of the Dublin Array offshore infrastructure or CWP.

15.15.103 Although CWP will occupy a contained proportion of the seascape to the south-east of the LCA and be seen at a minimum of 19km, it will, nonetheless, form a cumulative baseline in which large scale offshore infrastructure has an influence on the character of this coastal LCA. The addition of Dublin Array offshore infrastructure to this context will form a closer range and more prominent feature that will be seen to extend the influence of offshore infrastructure across a greater extent of the open seascape. The cumulative magnitude of change will be moderated by the lesser influence of CWP and also by the more limited visibility that will occur further inland from the coast where intervening trees and landform will further limit the visibility of CWP.

Cumulative Significance of Effect

15.15.104 The cumulative effect of Dublin Array offshore infrastructure MDO on this LCA during the construction and operational phases will be significant at a **Moderate** level across those parts of the LCA from where visibility will arise. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Medium** or **Medium-low** magnitude of change. In the remaining parts where tree cover and landform reduce visibility, the effect will be not significant at a **Minor** level and where there will be no visibility, there will be **No effect**.

Alternative Design Options

15.15.105 The cumulative effect of the ADOs on this LCA during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Fingal: Coastal Howth Head LCA

Main Assessment

- 15.15.106 The effect of Dublin Array offshore infrastructure on this LCA during the construction and operational phases will be significant at a Major-moderate level across the southern and eastern parts of the LCA. This will result from the combination of the Medium-high sensitivity of the LCA and the Medium-high magnitude of change. In the remaining parts there will be No effect as there will be no visibility.

Cumulative Magnitude of Change

- 15.15.107 The relevant cumulative development to this assessment is CWP, which will be located a minimum of 3km to the south of Dublin Array offshore infrastructure and offset by a minimum of approximately 28km from the southern boundary of the LCA. Dublin Array offshore infrastructure will comprise 39 WTGs at a height of 309.6 m and CWP will comprise 60 WTGs at a height of 314 m in height. The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows combined theoretical visibility to be concentrated along the southern and eastern coasts of the LCA, and no visibility across the central and northern parts owing to the screening effect of landform. Visibility of Dublin Array offshore infrastructure will occur across this LCA from a minimum of approximately 10 to 13km.
- 15.15.108 During the construction phase of the Dublin Array offshore infrastructure MDO, the cumulative magnitude of change will be **Low** across the southern and eastern parts of the LCA where actual visibility occurs and with **No change** in those parts where there will be no visibility.
- 15.15.109 It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the seascape visible from the open parts of this LCA will be altered by the presence of construction vessels, the emergence of offshore WTGs and OSPs, and the use of artificial lighting to aid construction during hours of darkness. The cumulative baseline will comprise the construction of CWP which will occupy a proportion of the seascape to the south-east of the LCA at a minimum of approximately 28km. The addition of the Dublin Array offshore infrastructure construction will occupy the seascape also to the south-east of the LCA, albeit at a minimum of 10km.
- 15.15.110 The cumulative magnitude of change will be moderated by the limited influence from the construction of CWP owing to its distant location at a minimum of approximately 28km which will make it a distant feature, occupying only a small proportion of the wider seascape. The construction of Dublin Array offshore infrastructure will be seen to the fore of CWP and its location in the same sector further moderates the cumulative effect by containing the spread of offshore infrastructure within the same sector of the seascape. While the construction of Dublin Array offshore infrastructure will form a notable influence on this LCA by drawing construction closer, the effects will relate more to Dublin Array offshore infrastructure alone, rather than the cumulative effect with CWP.

15.15.111 During the operational phase of the Dublin Array offshore infrastructure MDO, the cumulative magnitude of change will be **Low** across the southern and eastern parts of the LCA where actual visibility occurs and with **No change** in those parts where there will be no visibility.

15.15.112 Patches of intervisibility between Dublin Array offshore infrastructure and CWP will be concentrated around the southern and eastern coasts of the peninsula and over the southern slopes of the Ben of Howth. Across the remaining majority of the peninsula there will be no visibility and therefore no change in these areas. From these southern and eastern coasts, the offshore infrastructure will have an indirect effect on landscape character owing to their location in an area of previously undeveloped seascape. The cumulative magnitude of change will however be limited to **Low**, largely owing to the minimum separation of approximately 28km between the LCA and CWP which means it will have a very limited influence on the cumulative context, despite the closer proximity of Dublin Array offshore infrastructure at a minimum of 10km.

Cumulative Significance of Effect

15.15.113 The cumulative effect of Dublin Array offshore infrastructure MDO on the Coastal Howth Head LCA during the construction and operational phases will be not significant at a **Moderate-minor** level across the southern and eastern parts of the LCA. This will result from the combination of the **Medium-high** sensitivity of the LCA and the **Low** magnitude of change. In the remaining parts where there will be no visibility, there will be **No effect**.

Alternative Design Options

15.15.114 The cumulative effect of the ADOs on this LCA during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Landscape Designations

Wicklow Mountains National Park

Main Assessment

15.15.115 The effect of the Dublin Array offshore infrastructure on this NP during the construction and operational phases will be not significant at a Moderate or Moderate-minor level. This will result from the combination of the Medium-high sensitivity of the NP and the Medium-low or Low magnitude of change. In those parts of the NP where there will be no visibility, there will be No change and No effect.

Cumulative Assessment

- 15.15.116 The Wicklow Mountains NP lies within the Mountain Upland LCA. As such the detailed cumulative assessment for this LCA, presented above, in which cumulative interactions between Dublin Array offshore infrastructure and CWP arise, also applies to this NP. The cumulative magnitude of change is assessed as **Low** where visibility occurs and with **No change** where there is no visibility.
- 15.15.117 The cumulative effect of the Dublin Array offshore infrastructure MDO on this NP during the construction and operational phases will be not significant at a **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the NP and the **Low** cumulative magnitude of change. In those parts of the NP where there will be no visibility, there will be **No change** and **No effect**.

Alternative Design Options

- 15.15.118 The cumulative effect of the ADOs on the WMNP during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow Mountains and Lakeshore AONB

Main Assessment

- 15.15.119 The effect of the Dublin Array offshore infrastructure on this AONB during the construction and operational phases will be not significant at a Moderate or Moderate-minor level. This will result from the combination of the Medium-high sensitivity of the AONB and the Medium-low or Low magnitude of change. In those parts of the AONB where there will be no visibility, there will be No change and No effect.

Cumulative Assessment

- 15.15.120 The Wicklow Mountains and Lakeshore AONB coincides with the Mountain Uplands LCA. As such, the detailed cumulative assessment of the MDO for this LCA, presented above, in which cumulative interactions between Dublin Array offshore infrastructure and CWP arise, also applies to this AONB. The cumulative magnitude of change is assessed as **Low** where visibility occurs and with **No change** where there is no visibility.
- 15.15.121 The cumulative effect of the Dublin Array offshore infrastructure MDO on this AONB during the construction and operational phases will be not significant at a **Moderate-minor** level. This will result from the combination of the **Medium-high** sensitivity of the AONB and the **Low** cumulative magnitude of change. In those parts of the AONB where there will be no visibility, there will be **No effect**.

Alternative Design Options

15.15.122 The cumulative effect of the ADOs on the AONB during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow Coast AONB

Main Assessment

15.15.123 The effect of the Dublin Array offshore infrastructure on this AONB during the construction and operational phases will be significant at a Major-moderate or Moderate level. This will result from the combination of the Medium-high sensitivity of the AONB and the Medium-high, Medium or Medium-low cumulative magnitude of change. In those parts of the AONB where there will be no visibility, there will be No change and No effect.

Cumulative Assessment

15.15.124 The Wicklow Coast AONB coincides with the Wicklow Coastal Area LCA. As such, the detailed assessment for this LCA, presented above, in which cumulative interactions between Dublin Array offshore infrastructure and CWP arise, also applies to this AONB. The cumulative magnitude of change of the MDO is assessed as being **Medium high, Medium or Medium-low**, depending on the proximity of the different parts of the AONB to the offshore infrastructure, the levels of visibility that occur and the other natural and human influences acting on the baseline character of the AONB. Where there will be no visibility there will be **No change**.

15.15.125 The cumulative effect of the Dublin Array offshore infrastructure MDO on this AONB during the operational phase will be significant at a **Major-moderate** or **Moderate** level. This will result from the combination of the **Medium-high** sensitivity of the AONB and the **Medium-high, Medium or Medium-low** cumulative magnitude of change. In those parts of the AONB where there will be no visibility, there will be No Change and **No effect**.

Alternative Design Options

15.15.126 The cumulative effect of the ADOs on the AONB during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Wicklow: The Northern Hills AONB

Main Assessment

15.15.127 The effect of the Dublin Array offshore infrastructure on this AONB during the construction and operational phases will be significant at a Major-moderate level across the east facing slopes and summits of the hills. This will result from the combination of the Medium-high sensitivity of the AONB and the Medium-high or Medium magnitude of change. In those parts of the AONB where there will be no visibility, there will be No change and No effect.

Cumulative Assessment

15.15.128 The Northern Hills AONB coincides with The Northern Hills LCA. As such, the detailed cumulative assessment for this LCA, presented above, in which cumulative interactions between Dublin Array offshore infrastructure and CWP arise, also applies to this AONB. The cumulative magnitude of change of the MDO is assessed as **Medium-high** or **Medium** in those parts where visibility occurs and with **No change** where there is no visibility.

15.15.129 The cumulative effect of the Dublin Array offshore infrastructure MDO on this AONB during the construction and operational phases will be significant at a **Major-moderate** or **Moderate** level across the east facing slopes and summits of the hills. This will result from the combination of the **Medium-high** sensitivity of the AONB and the **Medium-high** or **Medium** magnitude of change. In those parts of the AONB where there will be no visibility, there will be No change and **No effect**.

Alternative Design Options

15.15.130 The cumulative effect of the ADOs on this AONB during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Howth Special Amenity Area Order / High Amenity Zone

Main Assessment

15.15.131 The effect of the Dublin Array offshore infrastructure on this SAAO during the construction and operational phases will be significant at a Major-moderate level across the southern and eastern coasts and onto the south-facing slopes of the Ben of Howth. This will result from the combination of the Medium-high sensitivity of the AONB and the Medium-high magnitude of change. In those parts of the AONB where there will be no visibility, there will be No change and No effect.

Cumulative Assessment

15.15.132 The Howth SAOO lies within Coastal Howth Head LCA. As such, the detailed cumulative assessment for this LCA, presented above, in which cumulative interactions between Dublin Array offshore infrastructure and CWP arise, also applies to this SSAO. The cumulative magnitude of change of the MDO is assessed as **Medium-high** along the southern and eastern coasts and across the southern slopes of the central upland area. Across the remainder of the SAAO there will be **No change** as there will be no visibility.

15.15.133 The cumulative effect of the Dublin Array offshore infrastructure MDO on this SAAO during the construction and operational phases will be not significant at a **Moderate-minor** level across the southern and eastern parts of the SAAO. This will result from the combination of the **Medium-high** sensitivity of the SAAO and the **Low** cumulative magnitude of change. In the remaining parts where there will be no visibility, there will be No change and **No effect**.

Alternative Design Options

15.15.134 The cumulative effect of the ADOs on the SAAO during the construction and operational phases will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will be theoretically visible across the same or lesser extents as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Cumulative impacts on views and visual receptors

15.15.135 The detailed assessment for each viewpoint and principal visual receptor in respect of the operational and maintenance phase of the Dublin Array offshore infrastructure is presented below. The baseline description and assessment of sensitivity for each receptor is presented in section 15.7.

Representative Viewpoints

Viewpoint 1: Scenic Car Park, Wicklow

Main Assessment

15.15.136 The effect of the Dublin Array offshore infrastructure on visual receptors at the Wicklow scenic car park during the construction and operational phases will be significant at a Major-moderate level. This will result from the combination of the High sensitivity of the visual receptors and the Medium magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.137 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 13.5km. CWP will comprise 60 WTGs at a height of 314 m in height. The cumulative wireline in Figure 3.15.26 (SLVIA Visualisations Appendix) shows that CWP will be seen closer to the viewpoint than Dublin Array offshore infrastructure which is at a minimum of 21.4km. While all WTGs will be visible, the stacking of some WTGs, will mean that closer WTGs may obscure the WTGs behind them. Along the far distant offshore horizon, NISA will be visible in good weather conditions at a minimum distance of 73.5km from the viewpoint. It comprises 35 WTGs at a height of 315 m in height, located to the north of Dublin Array. NISA will be located at such a distance that it will not have a bearing on the cumulative effect on views from this location.

15.15.138 During the construction phase, the addition of Dublin Array offshore infrastructure MDO to the cumulative baseline will give rise to a Medium cumulative magnitude of change. For the purposes of the assessment, it is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and, that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure and the use of artificial lighting to aid construction during hours of darkness. The closer range and greater horizontal extent of CWP means that its construction will have a notable influence on the view. The construction of Dublin Array offshore infrastructure will extend this influence further north across an additional extent of the seascape although with the separation distance between these developments marking them as two separate developments and avoiding one continuous extent.

15.15.139 During the operational phase, the addition of Dublin Array offshore infrastructure MDO to the cumulative baseline will give rise to a Medium cumulative magnitude of change. CWP will occupy a sizeable proportion of the seascape, extending north from Wicklow headland. The closer range and greater horizontal extent of CWP means that its WTGs will have a notable influence on the view. It is in this context that the cumulative magnitude of change arising from the addition of Dublin Array offshore infrastructure will be moderated, as it will not be seen as a new and unfamiliar feature in the seascape and will be seen at a slightly more distant range. Furthermore, there will be continuity in the appearance of the two offshore wind farms as the WTGs will appear of a comparable scale and they both follow a broadly linear layout parallel to the coastline. Dublin Array offshore infrastructure will, nonetheless, form a notable increase in the extent of offshore wind farm development readily visible across the seascape and its prominence will be accentuated by its more central location relative to the enclosing headlands.

Cumulative Significance of Effect

15.15.140 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Major-moderate** level owing to the **High** sensitivity of the visual receptors and the **Medium** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.141 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.52 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 2: Six Mile Point, Newcastle

Main Assessment

15.15.142 The effect of the Dublin Array offshore infrastructure on visual receptors at Six Mile Point, Newcastle during the construction and operational phases will be significant at a Major-moderate level. This will result from the combination of the Medium-high sensitivity and the Medium-high magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.143 The most relevant cumulative developments to this assessment are CWP and Arklow Bank Phase 2 which will be located to the south-east and south of Dublin Array offshore infrastructure respectively. CWP will be located a minimum of 13.2km from the viewpoint and will comprise 60 WTGs at a height of 314 m in height. Arklow Bank Phase 2 will be located a minimum of 18.8km from the viewpoint and will comprise 47 WTGs at a height of 287 m in height. Approximately half of the Arklow Bank Phase 2 WTGs will be obscured behind Wicklow Head. One WTG of Arklow Bank Phase 1 will be visible, located 29.9km to the south with a WTG height of 126.8 m with the rest obscured behind Wicklow Head. The cumulative wireline in Figure 3.15.27 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be seen further along the coast to the north of CWP and Arklow Wind Farm at a minimum of 11.9km and with all WTGs visible, albeit with some degree of stacking. NISA will be visible along the distant seascape horizon to the north of Dublin Array. At a minimum of 62.8km this offshore wind farm will be too distant to have a bearing on the cumulative assessment.

15.15.144 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium-high**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. The cumulative baseline will comprise the construction of CWP and Arklow Bank Phase 2 which will occupy a large proportion of the visible seascape extending from the east to the south-east. The addition of the Dublin Array offshore infrastructure construction will occupy the seascape to the north-east and although there is separation from CWP, it will be seen to occupy the remaining extent of open seascape in this direction. The construction activity and emerging presence of the Dublin Array offshore infrastructure will make a notable addition to the influence of this type of development and reduction in the undeveloped seascape.

15.15.145 During the operational phase the cumulative magnitude of change of the MDO will be **Medium-high**. The cumulative wireline in Figure 3.15.27 (SLVIA Visualisations Appendix) shows that the cumulative magnitude of change will relate principally to the additional horizontal extent that Dublin Array offshore infrastructure will form relative to the broad horizontal extent already formed by the cumulative baseline of CWP and Arklow Bank Phase 2. While there is a substantial gap between CWP and Arklow Bank Phase 2 and a gap between CWP and Dublin Array, these offshore wind farms will collectively occupy the majority of the visible seascape in this view. Dublin Array offshore infrastructure will be seen to the north-east and as the closest of the offshore wind farms, the WTGs will appear comparatively larger in scale.

Cumulative Significance of Effect

15.15.146 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Major-moderate** level owing to the **Medium-high** sensitivity of the visual receptors and the **Medium-high** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Cumulative Permutations

15.15.147 In considering the cumulative scenario in which Dublin Array offshore infrastructure MDO will be added to a cumulative baseline comprising only CWP, the cumulative magnitude of change will remain **Medium-high**, and the cumulative effect will remain **Significant** at a **Major-moderate** level. This is owing to the fact that the principle cumulative interaction is between Dublin Array offshore infrastructure and the adjacent CWP, while Arklow Bank Phase 2 will have less of an influence owing to its more distant location to the south and the limited extent of its visibility owing to the screening effect of Wicklow Head.

15.15.148 In considering the cumulative scenario in which Dublin Array offshore infrastructure MDO will be added to a cumulative baseline comprising only Arklow Bank Phase 2, the cumulative magnitude of change will reduce to **Medium**, and the cumulative effect will remain **Significant** but reduce to a **Moderate** level. This is owing to the substantial separation distance between these two developments which will mean that the eastern sector of the visible seascape will remain undeveloped, and that Dublin Array offshore infrastructure will not add further to an existing broad horizontal extent of wind farm development. It will, nonetheless, add a closer range offshore wind farm that will appear large in scale compared to the baseline cumulative comprising Arklow Bank Phase 2.

Alternative Design Options

15.15.149 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.53 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 3: N11 road near Kilmullin north of Ashford

Main Assessment

- 15.15.150 The effect of the Dublin Array offshore infrastructure on visual receptors at N11 road near Kilmullin north of Ashford during the construction and operational phases will be significant at a Moderate level. This will result from the combination of the Medium sensitivity and the Medium magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

- 15.15.151 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 16.7km. CWP will comprise 60 WTGs at a height of 314 m in height, the majority of which will be obscured by intervening vegetation. The cumulative wireline in Figure 3.15.28 (SLVIA Visualisations Appendix) shows that CWP will be located further south than Dublin Array offshore infrastructure which is at a minimum of 13.4km and with all WTGs readily visible, albeit with some degree of stacking. Along the far distant offshore horizon NISA will be visible on clear days at a minimum distance of 61.8km from the viewpoint. It comprises 35 WTGs at a height of 315 m in height, located to the north of Dublin Array. NISA will be located at such a distance that it will not have a bearing on the cumulative effect experienced from this viewpoint.

- 15.15.152 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium-low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of lighting to aid construction during hours of darkness. While the construction activity and presence of the Dublin Array offshore infrastructure will have a notable influence on this view, the limited influence of CWP, owing to its more distant location and the screening effect of vegetation means that there will be limited cumulative interaction.

- 15.15.153 During the operational phase the cumulative magnitude of change of the MDO will be **Medium-low**. While it is recognised that Dublin Array offshore infrastructure on its own will have a significant effect on visual receptors experiencing this view, the cumulative effect will be limited by the limited extent to which CWP will be visible owing to the screening effect of intervening vegetation and its greater separation distance from the viewpoint.

Cumulative Significance of Effect

- 15.15.154 The cumulative effect of the MDO during the construction and operational phases will be not significant at a **Moderate** level owing to the **Medium** sensitivity of the visual receptors and the **Medium-low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.155 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.54 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 4: Greystones Harbour

Main Assessment

15.15.156 The effect of the Dublin Array offshore infrastructure on visual receptors at Greystones Harbour during the construction and operational phases will be significant at a Major level. This will result from the combination of the Medium-high sensitivity and the High magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.157 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 14.9km. CWP will comprise 60 WTGs at a height of 314 m in height all of which will be visible. The cumulative wireline in Figure 3.15.29 (SLVIA Visualisations Appendix) shows that CWP will be seen south of Dublin Array offshore infrastructure which is at a minimum of 8.9km and with all WTGs readily visible, albeit with some degree of overlap and stacking. Along the far distant offshore horizon NISA will be visible on clear days at a minimum distance of 54.3km from the viewpoint. It comprises 35 WTGs at a height of 315 m in height, located to the north of Dublin Array. NISA will be located at such a distance that it will not have a bearing on the cumulative effect experienced from this viewpoint.

15.15.158 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium-high**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. The construction of CWP will occupy a substantial proportion of the view to the south-east and, at a minimum of 14.9km, the construction activities and emergence of WTGs will form a readily visible feature. From this viewpoint, Dublin Array offshore infrastructure will appear to occupy the seascape to the immediate north of CWP, such that the construction activities and presence of emerging WTGs will form a continuous extension in this direction.

15.15.159 During the operational phase the cumulative magnitude of change of the MDO will be **Medium-high**. The cumulative wireline in Figure 3.15.29 (SLVIA Visualisations Appendix) shows that the cumulative magnitude of change relates principally to the additional horizontal extent that Dublin Array offshore infrastructure will form across the visible seascape in this view. Dublin Array offshore infrastructure will occupy the seascape that appears to the immediate north of CWP and will create the effect of continuous wind farm development across a substantial part of the visible seascape. The closer proximity of Dublin Array offshore infrastructure compared to CWP will mean that the Dublin Array WTGs will appear larger in scale and this disparity will add to the cumulative magnitude of change.

Cumulative Significance of Effect

15.15.160 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Major-moderate** level owing to the **Medium-high** sensitivity of the visual receptors and the **Medium-high** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.161 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.55 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 5: Sugar Loaf Mountain

Main Assessment

15.15.162 The effect of the Dublin Array offshore infrastructure on visual receptors at Sugar Loaf Mountain during the construction and operational phases will be significant at a Major-moderate level. This will result from the combination of the High sensitivity and the Medium magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.163 The most relevant cumulative developments to this assessment will be CWP and Arklow Bank Phase 2 which will be located to the south-east and south of Dublin Array offshore infrastructure respectively. CWP will be located a minimum of 13.2km from the viewpoint and will comprise 60 WTGs at a height of 314 m in height. Arklow Bank Phase 2 will be located a minimum of 18.8km from the viewpoint and will comprise 47 WTGs at a height of 287 m in height. The WTGs of Arklow Bank Phase 1 will be visible amongst the WTGs of Arklow Bank Phase 2. Arklow Bank Phase 1 is located 29.9km to the south with a turbine height of 126.8 m. The cumulative wireline in Figure 3.15.30 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be seen to the north of CWP at a minimum of 11.9km and with all WTGs visible, albeit with some degree of overlap and stacking.

15.15.164 NISA will be visible along the distant seascape horizon located 55.3km to the north of Dublin Array offshore infrastructure but will be too distant to have a bearing on the cumulative assessment from this viewpoint.

15.15.165 During the construction phase, the cumulative magnitude of change of the MDO will be Medium-high. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. The construction activity and presence of emerging WTGs will be readily visible in relation to Arklow Bank Phase 2 and CWP and although at minimum distances of 18.8km and 13.2km respectively, they will form a notable horizontal extent to the south-east of the viewpoint. The addition of Dublin Array offshore infrastructure will extend the construction activity and presence of emerging WTGs across the seascape to the immediate north.

15.15.166 During the operational phase the cumulative magnitude of change of the MDO will be Medium-high. The cumulative wireline in Figure 3.15.30 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will occupy a notable additional extent, seen to the north of CWP, such that WTGs will span across the south-eastern and eastern sectors of the view. Although Dublin Array offshore infrastructure will be located a minimum of 11.9km, and owing to their closer proximity, the WTGS will appear larger in scale compared to those of the CWP and this will accentuate their presence and influence. The cumulative magnitude of change is prevented from being rated high owing to the wider extent of undeveloped seascape visible to the north.

Cumulative Significance of Effect

15.15.167 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Major** level owing to the **High** sensitivity of the visual receptors and the **Medium-high** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Cumulative Permutations

15.15.168 In considering the cumulative scenario in which Dublin Array offshore infrastructure will be added to a cumulative baseline comprising only CWP, the cumulative magnitude of change will be medium, and the cumulative effect will be not significant at a moderate level. This is owing to the more distant location of CWP which means it has a lesser influence on the cumulative baseline and therefore that the addition of Dublin Array offshore infrastructure relates more to the solus rather than cumulative effect.

15.15.169 In considering the cumulative scenario in which Dublin Array offshore infrastructure will be added to a cumulative baseline comprising only Arklow Bank, the cumulative magnitude of change will remain medium-high, and the cumulative effect will remain significant at a major / moderate level. This is owing to the closer range location of Arklow Bank which means it has a notable influence on the cumulative baseline and therefore that the addition of Dublin Array offshore infrastructure will give rise to a notable cumulative effect. This assessment considers visibility of existing Arklow Bank Phase 1 and proposed Arklow Bank Phase 2 offshore wind farms.

Alternative Design Options

15.15.170 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.56 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 6: Bray Head walkway

Main Assessment

15.15.171 The effect of the Dublin Array offshore infrastructure on visual receptors at Bray Head walkway during the construction and operational phases will be significant at a Major level. This will result from the combination of the High sensitivity and the High magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.172 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 17.1km. CWP will comprise 60 WTGs at a height of 314 m in height, the southern part of which will be obscured by Bray Head. The cumulative wireline in Figure 3.15.31 (SLVIA Visualisations Appendix) shows that the northern part of CWP will overlap with the southern part of Dublin Array, which is at a minimum of 10.2km and with all WTGs readily visible, albeit with some degree of overlapping. Along the far distant offshore horizon, NISA will be visible on clear days at a minimum distance of 50.0km. It will comprise 35 WTGs at a height of 315 m in height and seen located to the north of Dublin Array offshore infrastructure and to the right of Howth Head. NISA will be too distant to have a bearing on the cumulative assessment from this viewpoint.

15.15.173 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium-low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 17.1km and with the southern part screened by the intervening landform of Bray Head. The closer range and much broader extent of Dublin Array offshore infrastructure means that the associated construction works will have a notable influence on this viewpoint, albeit relating more to the project alone than the additional effect in respect of the cumulative context.

15.15.174 During the operational phase the cumulative magnitude of change of the MDO will be **Medium-low**. The cumulative wireline in Figure 3.15.31 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 17.1km and with the southern part screened by the intervening landform of Bray Head. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP.

Cumulative Significance of Effect

15.15.175 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Moderate** level owing to the **Medium-high** sensitivity of the visual receptors and the **Medium-low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.176 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.57 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 7: Bray Promenade

Main Assessment

15.15.177 The effect of the Dublin Array offshore infrastructure on visual receptors at Bray Promenade during the construction and operational phases will be significant at a Major level. This will result from the combination of the Medium-high sensitivity and the High magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.178 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 18.1km. CWP will comprise 60 WTGs at a height of 314 m in height, the southern part of which will be obscured by Bray Head. The cumulative wireline in Figure 3.15.32 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be visible at a minimum of 11.0km and with all WTGs readily visible, albeit with some degree of stacking and overlap. Along the far distant offshore horizon, NISA will be visible on clear days at a minimum distance of 49.5km from the viewpoint. It comprises 35 WTGs at a height of 315 m in height, located to the north of Dublin Array. It will be seen beyond Howth Head and located at such a distance that it will not have a bearing on the assessment of significant cumulative effects from this viewpoint.

15.15.179 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium-low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 18.1km and with the southern part screened by the intervening landform of Bray Head. The closer range and much broader extent of Dublin Array offshore infrastructure means that the associated construction works will have a notable influence on this viewpoint, albeit relating more to the project alone than the additional effect in respect of the cumulative context.

15.15.180 During the operational phase the cumulative magnitude of change of the MDO will be Medium-low. The cumulative wireline in Figure 3.15.32 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 18.1km and with the southern part screened by the intervening landform of Bray Head. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP.

Cumulative Significance of Effect

15.15.181 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Moderate** level owing to the **Medium-high** sensitivity of the visual receptors and the **Medium-low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.182 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.58 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 8: Hill at Carrick Gollogan, near Shankill

Main Assessment

15.15.183 The effect of the Dublin Array offshore infrastructure on visual receptors at Carrick Gollogan, near Shankill during the construction and operational phases will be significant at a Moderate level. This will result from the combination of the Medium-high sensitivity and the Medium magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.184 Along the far distant offshore horizon, NISA will be visible on clear days at a minimum distance of 48.1km from the viewpoint. It comprises 35 WTGs at a height of 315 m in height, located to the north of Dublin Array offshore infrastructure and seen beyond Howth Head. NISA will be too distant to have a bearing on the assessment of cumulative effects from this viewpoint. The cumulative wireline in Figure 3.15.33 (SLVIA Visualisations Appendix) shows that the northern part of CWP will also be theoretically visible at a minimum of 23.4km while the baseline photograph shows that actual visibility will be screened by the intervening forestry.

15.15.185 During the construction and operational phases, the cumulative magnitude of change of the MDO will be **Low**. This takes into account the screening of CWP and the distant and limited influence of NISA which together will form an especially weak cumulative context. While Dublin Array offshore infrastructure will give rise to a notable feature, the cumulative interactions will be limited by the limited influence of the other developments. Although the project alone will give rise to significant effects, in conjunction with the other offshore wind farms it will not give rise to cumulative significant effects.

Cumulative Significance of Effect

15.15.186 Although Dublin Array offshore infrastructure MDO will give rise to a significant project alone effect, the cumulative effect during the construction and operational phases will be not significant at a **Moderate-minor** level owing to the **Medium-high** sensitivity of the visual receptors and the **Low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.187 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.59 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 9: Shankill Beach

Main Assessment

15.15.188 The effect of the Dublin Array offshore infrastructure on visual receptors at Shankill Beach during the construction and operational phases will be significant at a Major level. This will result from the combination of the Medium-high sensitivity and the High magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.189 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 20.4km. CWP will comprise 60 WTGs at a height of 314 m in height, all of which will be seen off the coast of Bray Head. The cumulative wireline in Figure 3.15.34 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be seen at a minimum of 10.8km and with all WTGs readily visible, albeit with some degree of stacking and overlap. Along the far distant offshore horizon, NISA will be visible on clear days at a minimum distance of 46.4km from the viewpoint. It comprises 35 WTGs at a height of 315 m in height, seen between the mainland and Dalkey Island such the WTGS will not be seen to their full extents. NISA will be too distant to have a notable bearing on the cumulative assessment.

15.15.190 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium-low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 20.4km and seen to occupy a contained proportion of the open seascape to the south-east. The closer range and much broader extent of Dublin Array offshore infrastructure means that the associated construction works will have a notable influence on this viewpoint, albeit relating more to the project alone than the additional effect in respect of the cumulative context.

15.15.191 During the operational phase, the cumulative magnitude of change of the MDO will be **Medium-low**. The cumulative wireline in Figure 3.15.34 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 20.4km and occupying a much more contained extent of the seascape view. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP in terms of vertical scale and horizontal extent.

Cumulative Significance of Effect

15.15.192 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Moderate** level owing to the Medium-high sensitivity of the visual receptors and the Medium-low cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.193 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.60 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 10: Killiney Hill Obelisk

Main Assessment

15.15.194 The effect of the Dublin Array offshore infrastructure on visual receptors at Killiney Hill Obelisk during the construction and operational phases will be significant at a Major level. This will result from the combination of the High sensitivity and the High magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.195 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 22.7km. CWP will comprise 60 WTGs at a height of 314 m in height, all of which will be seen set in the open seascape to the south-east of the viewpoint. The cumulative wireline in Figure 3.15.35 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be seen at a minimum of 11.0km and with all WTGs readily visible, albeit with some degree of stacking and overlap. On clear days NISA will be visible to the north, at a minimum distance of 42.7km and Arklow Bank Phase 2 will be visible to the south, at a minimum distance of 41.0km from the viewpoint. NISA will comprise 35 WTGs at a height of 315 m in height, albeit largely screened by the intervening landform of Howth Head. Arklow Bank Phase 2 will comprise 47 WTGs at 287 m, albeit partly screened by the intervening landform of Bray Head. The distant location of these wind farms, their small-scale, limited horizontal extents and partial concealment by landform means they will not have a notable bearing on the cumulative assessment.

15.15.196 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium-low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of the construction of CWP, which will be seen at a minimum of 22.7km and seen to occupy a contained proportion of the open seascape to the south-east. The closer range and much broader extent of Dublin Array offshore infrastructure means that the associated construction works will have a notable influence on this viewpoint, albeit relating more to the project alone than the additional effect in respect of the cumulative context.

15.15.197 During the operational phase, the cumulative magnitude of change of the MDO will be **Medium-low**. The cumulative wireline in Figure 3.15.35 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 22.7km and occupying a much more contained extent of the seascape view. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP in terms of vertical scale and horizontal extent.

Cumulative Significance of Effect

15.15.198 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Moderate** level owing to the **High** sensitivity of the visual receptors and the **Medium-low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.199 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.61 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 11: Vico Road seating area

Main Assessment

15.15.200 The effect of the Dublin Array offshore infrastructure on visual receptors at Vico Road seating area during the construction and operational phases will be significant at a Major level for walkers and residents and Major-moderate for road-users. This will result from the combination of the High sensitivity of walkers and residents, medium sensitivity of road-users and the High magnitude of change.

Cumulative Magnitude of Change

15.15.201 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 22.5km. CWP will comprise 60 WTGs at a height of 314 m in height, all of which will be seen set in the open seascape to the south-east of the viewpoint. The cumulative wireline in Figure 3.15.36 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be seen at a minimum of 10.5km and with all WTGs readily visible, albeit with some degree of stacking and overlap. On clear days, Arklow Bank Phase 2 will be visible to the south, at a minimum distance of 41.1km from the viewpoint. Arklow Bank Phase 2 will comprise 47 WTGs at 287 m, albeit partly screened by the intervening landform of Bray Head. The distant location of this wind farm, small-scale of the WTGs, limited horizontal extents and partial concealment by landform means the influence will be too limited to have a notable bearing on the cumulative assessment.

15.15.202 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium-low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of the construction of CWP, which will be seen at a minimum of 22.5km and seen to occupy a contained proportion of the open seascape to the south-east. The closer range and much broader extent of Dublin Array offshore infrastructure means that the associated construction works will have a notable influence on this viewpoint, albeit relating more to the project alone than the additional effect in respect of the cumulative context.

15.15.203 During the operational phase, the cumulative magnitude of change of the MDO will be **Medium-low**. The cumulative wireline in Figure 3.15.36 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 22.7km and occupying a much more contained extent of the seascape view. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP in terms of vertical scale and horizontal extent.

Cumulative Significance of Effect

15.15.204 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Moderate** level owing to the **High** sensitivity of the visual receptors and the **Medium-low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.205 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.62 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 12: Coliemore Harbour seating area

Main Assessment

15.15.206 The effect of the Dublin Array offshore infrastructure on visual receptors at Coliemore Harbour seating area during the construction and operational phases will be significant at a Major-moderate level for residents, ferry passengers and walkers, and significant at a Moderate level for road-users. This will result from the combination of the Medium-high or Medium sensitivity and the Medium-high magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.207 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 22.4km. CWP will comprise 60 WTGs at a height of 314 m in height, which will be seen set in the open seascape to the south-east of the viewpoint, albeit with the northern part obscured by Dalkey Island. The cumulative wireline in Figure 3.15.37 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be seen at a minimum of 9.8km albeit with some screening by the intervening landform of Dalkey Island. On clear days, NISA will be visible to the north, at a minimum distance of 41.1km from the viewpoint. It comprises 35 WTGs at a height of 315 m in height, although partly screened by the intervening landform of Howth Head. NISA will be too distant to have a notable bearing on the cumulative assessment.

15.15.208 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium-low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of the construction of CWP, which will be seen at a minimum of 22.4km and seen to occupy a contained proportion of the open seascape to the south-east. The construction of the Dublin Array offshore infrastructure seen behind and to the sides of the focal feature of Dalkey Island, combined with its closer range and much broader extent compared to CWP means it will have a notable influence on this viewpoint, albeit relating more to the project alone than the additional effect in respect of the cumulative context.

15.15.209 During the operational phase, the cumulative magnitude of change of the MDO will be **Medium-low**. The cumulative wireline in Figure 3.15.37 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 22.4km and occupying a much more contained extent of the seascape view. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP in terms of vertical scale and horizontal extent.

Cumulative Significance of Effect

15.15.210 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Moderate** level owing to the **Medium-high** sensitivity of the visual receptors and the **Medium-low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.211 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.63 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 13: Dún Laoghaire Harbour East Pier

Main Assessment

15.15.212 The effect of the Dublin Array offshore infrastructure on visual receptors at Dún Laoghaire Harbour East Pier during the construction and operational phases will be significant at a Major-moderate level for residents, ferry passengers and walkers, and significant at a Moderate level for road-users. This will result from the combination of the Medium-high sensitivity for residents, ferry passengers and walkers, and Medium sensitivity for road-users, and the Medium-high magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.213 The cumulative wirelines in Figure 3.15.38 (SLVIA Visualisations Appendix) show that the influence on this viewpoint from the cumulative developments will be limited. NISA lies to the north-east at a minimum of 40.0km and while a small number of blades are shown to be theoretically visible, actual visibility will be reduced by the screening effect of intervening built form and tree cover. Similarly, theoretical visibility of a small number of CWP blades at a minimum of 25.6km to the south will be screened by intervening built form and tree cover. The negligible influence from these cumulative developments means that the cumulative magnitude of change of the MDO will be **Negligible**, despite the clear visibility of much of the Dublin Array offshore infrastructure at a minimum of 12.1km.

Cumulative Significance of Effect

15.15.214 The cumulative effect of the MDO during the construction and operational phases will be not significant at a **Minor** level owing to the **Medium-high** sensitivity for residents, ferry passengers and walkers, and **Medium** sensitivity for road-users and the **Negligible** cumulative magnitude of change.

Alternative Design Options

15.15.215 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.64 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 14: R131 near Martello Tower, Sandymount

Main Assessment

15.15.216 The effect of the Dublin Array offshore infrastructure on visual receptors at R131 near Martello Tower, Sandymount during the construction and operational phases will be significant at a Moderate level for residents, walkers and road-users. This will result from the combination of the Medium-high sensitivity for residents and walkers, and Medium sensitivity for road-users, and the Medium magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.217 The cumulative wirelines in Figure 3.15.39 (SLVIA Visualisations Appendix) show that the influence on this viewpoint from the cumulative developments will be limited. NISA lies to the north-east at a minimum of 39.0km and is almost fully screened by the intervening landform of Dublin Port. While there will be theoretical visibility of CWP minimum of 31.8km to the south, this will comprise a small number of blades with the majority of the wind farm screened by the intervening low coastal hills to the south of Dún Laoghaire. The negligible influence from these cumulative developments means that the cumulative magnitude of change of the MDO will be **Negligible**, despite the clear visibility of much of the Dublin Array Infrastructure at a minimum of 17.8km.

Cumulative Significance of Effect

15.15.218 The cumulative effect of the MDO during the construction and operational phases will be not significant at a **Minor** level owing to the **Medium-high** sensitivity for residents and walkers, and **Medium** sensitivity for road-users, and the **Negligible** cumulative magnitude of change.

Alternative Design Options

15.15.219 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.65 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 15: Promenade near Clontarf village

Main Assessment

15.15.220 The effect of the Dublin Array offshore infrastructure on visual receptors at Promenade near Clontarf village during the construction and operational phases will be not significant at a Moderate level for residents, ferry passengers and walkers, and at a Moderate-minor level for road-users. This will result from the combination of the Medium-high sensitivity for residents and walkers, Medium sensitivity for road-users, and the Medium-low magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.221 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 34.3km. CWP will comprise 60 WTGs at a height of 314 m in height, with the northern part visible to the left of Dublin Port and the central and southern parts screened by the intervening landform and tree cover. The cumulative wireline in Figure 3.15.40 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be seen at a minimum of 19.1km and with all WTGs readily visible, albeit with some degree of stacking and overlap.

15.15.222 During the construction phase, the cumulative magnitude of change of the MDO will be **Low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the limited influence of the construction of CWP, which will be seen at a minimum of 34.3km and largely screened by the intervening landform and tree cover at the eastern extent of Dublin Port. The closer range and much broader extent of Dublin Array offshore infrastructure means that the associated construction works will have a notable influence on this viewpoint, albeit relating more to the project alone than the additional effect in respect of the cumulative context.

15.15.223 During the operational phase, the cumulative magnitude of change of the MDO will be **Low**. The cumulative wireline in Figure 3.15.40 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the south-eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 34.3km and occupying a much more contained extent of the seascape view. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP in terms of vertical scale and horizontal extent.

Cumulative Significance of Effect

15.15.224 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Moderate-minor** or **Minor** level owing to the **Medium-high** or **Medium** sensitivity of the visual receptors and the **Low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.225 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.66 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 16: Near the Bull Wall, North Bull Island

Main Assessment

15.15.226 The effect of the Dublin Array offshore infrastructure on visual receptors at the Bull Wall, North Bull Island during the construction and operational phases will be significant at a Moderate level. This will result from the combination of the Medium-high sensitivity of walkers and the Medium magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.227 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 31.9km. CWP will comprise 60 WTGs at a height of 314 m in height, which will be seen behind and to the left of Poolbeg Pier and the coastal edge around Dún Laoghaire. The cumulative wireline in Figure 3.15.41 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be seen at a minimum of 16.4km and with all WTGs seen to their full extents. On clear days, NISA will be visible to the north, at a minimum distance of 35.0km from the viewpoint. It comprises 35 WTGs at a height of 315 m in height, although partly screened by the intervening landform, offset from the main attraction of the seaward views and too distant to have a notable bearing on the cumulative assessment.

15.15.228 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium-low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of the construction of CWP, which will be seen at a minimum of 31.9km and seen to occupy a contained proportion of the open seascape to the south-east and partly screened by Poolbeg Pier and coastal landform. The construction of the Dublin Array offshore infrastructure will have a notable influence on this viewpoint, owing to its closer range and broader extents, albeit relating more to the project alone than the additional effect in respect of the cumulative context.

15.15.229 During the operational phase, the cumulative magnitude of change of the MDO will be **Medium-low**. The cumulative wireline in Figure 3.15.41 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 31.9km and occupying a much more contained extent of the seascape view. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP in terms of vertical scale and horizontal extent.

Cumulative Significance of Effect

15.15.230 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Moderate** level owing to the **Medium-high** sensitivity of the visual receptors and the **Medium-low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.231 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.67 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 17: R105, Sutton

Main Assessment

- 15.15.232 The effect of the Dublin Array offshore infrastructure on visual receptors at R105, Sutton during the construction and operational phases will be significant at a Moderate level for residents and walkers, and road-users. This will result from the combination of the Medium-high sensitivity for residents and walkers, Medium sensitivity for road-users, and the Medium magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

- 15.15.233 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 33.3km. CWP will comprise 60 WTGs at a height of 314 m in height, which will be seen set behind the western extent of Bull Island and to the right of Howth Head. The cumulative wireline in Figure 3.15.42 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be seen at a minimum of 16.5km albeit with the northern part screened by the intervening landform of Howth Head and the lower parts of the WTGs screened by the intervening landform of Bull Island. Arklow Bank Phase 2 will be located a minimum of 54.3km from the viewpoint and will comprise 47 WTGs at a height of 287 m in height. While on a clear day it may be visible as blade tips above North Bull Island, its distance and very limited visibility mean that it will not have a bearing on the cumulative assessment from this viewpoint.
- 15.15.234 During the construction phase, the cumulative magnitude of change of the MDO will be **Low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of the construction of CWP, which will be seen at a minimum of 33.3km and seen partly obscured by Bull Island. The construction of the Dublin Array offshore infrastructure will be seen to the fore of CWP. The extent of the overlap between the construction works will further moderate the cumulative effect by preventing an increase in the horizontal extent and concentrating the influence of the wind farm constructions within the one area.

15.15.235 During the operational phase, the cumulative magnitude of change of the MDO will be **Low**. The cumulative wireline in Figure 3.15.42 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be located to the fore of CWP such that there will be no increase in the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be more prominent and larger in scale owing to their location at a minimum of 16.5km compared to the location of CWP at 33.3km. While the addition of Dublin Array offshore infrastructure will add to the concentration of WTGs in this sector, the cumulative magnitude of change will be moderated by the extent of overlap, and the limited influence from CWP owing to its more distant location. The offshore wind farms will not be seen in the open seascape but behind and adjacent to coastal landforms and this further reduces the effect as they will be associated with the developed land and not the undeveloped seascape.

Cumulative Significance of Effect

15.15.236 The cumulative effect of the MDO during the construction and operational phases will be not significant at a **Moderate-minor** or **Minor** level owing to the **Medium-high** or **Medium** sensitivity of the visual receptors and the **Low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.237 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.68 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 18: Howth Head Viewpoint

Main Assessment

15.15.238 The effect of the Dublin Array offshore infrastructure on visual receptors at the Howth Head Viewpoint during the construction and operational phases will be significant at a Major level. This will result from the combination of the High sensitivity of walkers and the Medium-high magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.239 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 29.2km. CWP will comprise 60 WTGs at a height of 314 m in height, with all WTGs fully visible and seen set in the open seascape to the south of viewpoint. The cumulative wireline in Figure 3.15.43 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be seen at a minimum of 11.8km also with all WTGs fully visible and seen set in the open seascape to the south of viewpoint and to the fore of CWP. Arklow Bank Phase 2 will be located a minimum of 51.5km from the viewpoint and will comprise 47 WTGs at a height of 287 m in height. While on a clear day it may be visible off the distant Wicklow Head, its distance and very limited visibility mean that it will not have a bearing on the cumulative assessment from this viewpoint.

15.15.240 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium-low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of the construction of CWP, which will be seen at a minimum of 29.2km with the emerging WTGs appearing as relatively small and distant structures. The construction of the Dublin Array offshore infrastructure will be seen to the fore of CWP. The extent of the overlap between the construction works will further moderate the cumulative effect by preventing an increase in the horizontal extent and concentrating the influence of the wind farm constructions within the same sector of the seascape.

15.15.241 During the operational phase, the cumulative magnitude of change of the MDO will be **Medium-low**. The cumulative wireline in Figure 3.15.43 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be located to the fore of CWP such that there will be no increase in the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be more prominent and larger in scale owing to their location at a minimum of 11.8km compared to the location of CWP at 29.2km. While the addition of Dublin Array offshore infrastructure will add to the concentration of WTGs in this sector, the cumulative magnitude of change will be moderated by the extent of overlap, and the limited influence from CWP owing to its more distant location. The separation of the offshore wind farms from the developed coastlines and association with the open and undeveloped seascape will accentuate the cumulative magnitude of change.

Cumulative Significance of Effect

15.15.242 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Moderate** level owing to the **High** sensitivity of the visual receptors and the **Medium-low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.243 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.69 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 19: Car park near Martello Tower, Portrane

Main Assessment

15.15.244 The effect of the Dublin Array offshore infrastructure on visual receptors at the car park near Martello Tower, Portrane during the construction and operational phases will be not significant at a Moderate-minor level for walkers, and at a Minor level for residents and road-users. This will result from the combination of the Medium-high sensitivity for walkers, and Medium sensitivity for residents and road-users, and the Low magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.245 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 42.2km. CWP will comprise 60 WTGs at a height of 314 m in height, with all WTGs fully visible and occupying the seascape seen set to the west of Howth Head. The cumulative wireline in Figure 3.15.44 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be seen at a minimum of 24.1km with almost all WTGs fully visible, seen set to the west of Howth Head and to the fore of CWP. NISA will be visible in the sector to the north-east, at a minimum distance of 19.7km from the viewpoint. It comprises 35 WTGs at a height of 315 m in height, although partly screened by the intervening landform of the headland.

15.15.246 During the construction phase, the cumulative magnitude of change of the MDO will be **Low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of the construction of CWP, which will be seen at a minimum of 42.2km with the emerging WTGs appearing as small and distant structures.

15.15.247 The construction of the Dublin Array offshore infrastructure will be seen to the fore of CWP. The overlap between the construction works will further moderate the cumulative effect by preventing an increase in the horizontal extent and concentrating the influence of the wind farm constructions within the same sector of the seascape. While there will also be a cumulative interaction between the construction of the Dublin Array offshore infrastructure and the construction of NISA, which will be seen in the opposite direction of the view, this will be moderated by the separation distance of both from the viewpoint, the contained horizontal extent of both developments and their apparent location close to the coastal edge rather than in the middle of an open and undeveloped seascape.

15.15.248 During the operational phase, the cumulative magnitude of change of the MDO will be **Low**. The cumulative wireline in Figure 3.15.44 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be located to the fore of CWP such that there will be no increase in the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be more prominent and larger in scale owing to their location at a minimum of 24.1km compared to the location of CWP at 42.2km. While the addition of Dublin Array offshore infrastructure will add to the concentration of WTGs in this sector, the cumulative magnitude of change will be moderated by the extent of overlap, and the limited influence from CWP owing to its more distant location. There will also be a cumulative interaction between Dublin Array offshore infrastructure and NISA but this will be moderated by the location of Dublin Array offshore infrastructure in the same extent of the view as CWP and the apparent location of the offshore developments at the edge of the open seascape in which the central feature of Lambay island remains unaffected.

Cumulative Significance of Effect

15.15.249 The cumulative effect of the MDO during the construction and operational phases will be not significant at a **Moderate-minor** or **Minor** level owing to the **Medium-high or Medium** sensitivity of the visual receptors and the **Low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.250 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.70 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 20: Entrance to new housing estate, Rush

Main Assessment

15.15.251 The effect of the Dublin Array offshore infrastructure on visual receptors at the Entrance to new housing estate at Rush during the construction and operational phases will be not significant at a Moderate-minor level. This will result from the combination of the Medium-high sensitivity and the Low magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.252 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 44.9km. CWP will comprise 60 WTGs at a height of 314 m in height, with all WTGs fully visible and occupying the seascape seen set to the west of Howth Head. The cumulative wireline in Figure 3.15.45 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be located a minimum of 26.4km from the viewpoint with almost all WTGs fully visible. These will be seen set to the west of Howth Head and to the fore of CWP.

15.15.253 During the construction phase, the cumulative magnitude of change of the MDO will be **Low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of the construction of CWP, which will be seen at a minimum of 44.9km with the emerging WTGs appearing as small and distant structures. The construction of the Dublin Array offshore infrastructure will be seen to the fore of CWP. The overlap between the construction works will further moderate the cumulative effect by preventing an increase in the horizontal extent and concentrating the influence of the wind farm constructions within the same sector of the seascape.

15.15.254 During the operational phase, the cumulative magnitude of change of the MDO will be **Low**. The cumulative wireline in Figure 3.15.45 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be located to the fore of CWP such that there will be no increase in the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be more prominent and larger in scale than the CWP WTGs owing to their location at a minimum of 26.4km, although also appearing distant and well contained within the wider view. While the addition of Dublin Array offshore infrastructure will add to the concentration of WTGs in this sector, the cumulative magnitude of change will be moderated by the extent of overlap, and the limited influence from CWP owing to its more distant location.

Cumulative Significance of Effect

15.15.255 The cumulative effect of the MDO during the construction and operational phases will be not significant at a **Moderate-minor** or **Minor** level owing to the **Medium-high** or **Medium** sensitivity of the visual receptors and the **Low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.256 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.71 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 21: Offshore view 7km south-east of Howth Head

Main Assessment

15.15.257 The effect of the Dublin Array offshore infrastructure on ferry passengers during the construction and operational phases will be significant at a Major level. This will result from the combination of the Medium-high sensitivity and the High magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.258 A number of cumulative developments will be visible from this viewpoint owing to its location in the Irish Sea and the open aspect this affords. CWP is the closest and will be located to the south-east of Dublin Array offshore infrastructure at a minimum of 22.1km. CWP will comprise 60 WTGs at a height of 314 m in height, with all WTGs fully visible and seen in the open seascape. NISA will be visible in the sector to the north, at a minimum distance of 34.1km from the viewpoint. It comprises 35 WTGs at a height of 315 m in height, which will be seen to the east of Ireland's Eye, albeit as relatively distant and small-scale features. Arklow Bank Phase 2 will be located a minimum of 45.8km from the viewpoint and will comprise 47 WTGs at a height of 287 m in height. While on a clear day it may be visible off the distant Wicklow Head, its distance and very limited visibility mean that it will not have a bearing on the cumulative assessment from this viewpoint. The cumulative wireline in Figure 3.15.46 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be located a minimum of 4.1km from the viewpoint with all WTGs fully visible.

15.15.259 During the construction phase, the cumulative magnitude of change of the MDO will be **Medium**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of the construction of CWP, which will be seen at a minimum of 22.1km and as a much more distant feature than the closer range Dublin Array offshore infrastructure. The construction of the Dublin Array offshore infrastructure will be seen to the fore of CWP and the overlap between the construction works will further moderate the cumulative effect by preventing an increase in the horizontal extent and concentrating the influence of the wind farm constructions within the same sector of the seascape. While the construction of NISA will also be visible to the north, its location at a minimum of 34.1km will limit its influence on the cumulative context.

15.15.260 During the operational phase, the cumulative magnitude of change of the MDO will be **Medium**. The cumulative wireline in Figure 3.15.46 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be located to the fore of CWP such that there will be no increase in the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be more prominent and larger in scale than the CWP WTGs owing to their location at a minimum of 4.1km and will add notably to the horizontal extent of wind farm development in this view. While the addition of Dublin Array offshore infrastructure will add to the concentration and extent of WTGs in this sector, the cumulative magnitude of change will be moderated by the extent of overlap, and the limited influence from CWP owing to its more distant location.

Cumulative Significance of Effect

15.15.261 The cumulative effect of the MDO during the construction and operational phases will be significant at a **Moderate** level owing to the **Medium-high** sensitivity of the visual receptors and the **Medium** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.262 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.72 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 22: Tonelagee

Main Assessment

- 15.15.263 The effect of the Dublin Array offshore infrastructure on visual receptors at Tonelagee during the construction and operational phases will be not significant at a Moderate-Minor level. This will result from the combination of the Medium-high sensitivity and the Low magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

- 15.15.264 A number of cumulative developments will be visible from this viewpoint owing to its elevated position and the open aspect this affords. Dublin Array offshore infrastructure, CWP and Arklow Bank Phase 2 will all be visible at a similar distant range. The cumulative wireline in Figure 3.15.47 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be located a minimum of 32.4km from the viewpoint with the northern part screened by the intervening coastal hills. CWP will comprise 60 WTGs at a height of 314 m in height, with all WTGs fully visible and seen in the open seascape to the south of Dublin Array offshore infrastructure at a minimum of 36.4km. Arklow Bank Phase 2 and operational Arklow Bank Phase 1 will be located a minimum of 34.4km and 40.3km from the viewpoint, with Arklow Bank Phase 2 comprising 47 WTGs at a height of 287 m in height. NISA will be visible in the sector to the north, and at a minimum distance of 71.2km will be too distant to have a bearing on the cumulative assessment from this viewpoint.
- 15.15.265 During the construction phase, the cumulative magnitude of change of the MDO will be **Low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. The limiting factors in terms of the cumulative magnitude of change will be the separation distance between the viewpoint and the construction of the Phase 1 offshore wind farms which will be more than 30km for all of them. This means that the emerging WTGs will appear as small and distant features despite the broad horizontal extent of each array. Furthermore, the view is characterised by the surrounding hills with the Irish Sea forming a background feature and this also moderates the cumulative magnitude of change.
- 15.15.266 During the operational phase, the cumulative magnitude of change of the MDO will be **Low**. The cumulative wireline in Figure 3.15.47 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be located to the north-east of the viewpoint at a minimum of 32.4km and to the north of CWP at a minimum of 36.4km. Despite the fact that these two offshore wind farms will form a broad horizontal extent across the open seascape to the north-east, the cumulative magnitude of change will be moderated by the small scale of the WTGs as experienced from this distant range. Furthermore, the view is characterised by the surrounding hills with the Irish Sea forming a background feature and this also moderates the cumulative magnitude of change.

Cumulative Significance of Effect

15.15.267 The cumulative effect of the MDO during the construction and operational phases will be not significant at a **Moderate-minor** level owing to the **Medium-high** sensitivity of the visual receptors and the **Low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.268 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.73 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 23: Djouce Mountain

Main Assessment

15.15.269 The effect of the Dublin Array offshore infrastructure on visual receptors at the summit of Djouce Mountain during the construction and operational phases will be not significant at a Moderate level. This will result from the combination of the Medium-high sensitivity and the Medium-low magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.270 A number of cumulative developments will be visible from this viewpoint owing to its elevated position and the open aspect this affords. The cumulative wireline in Figure 3.15.48 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be located a minimum of 20.9km from the viewpoint with all 39 WTGs fully visible, albeit with some stacking and overlap occurring. CWP will comprise 60 WTGs at a height of 314 m in height, with all WTGs fully visible and seen in the open seascape to the south of Dublin Array offshore infrastructure at a minimum of 26.7km. Arklow Bank Phase 2 and operational Arklow Bank Phase 1 will be located a minimum of 34.4km and 40.3km from the viewpoint and seen separate to the south of CWP. NISA will be visible in the sector to the north, and at a minimum distance of 59.7km will be too distant to have a bearing on the cumulative assessment from this viewpoint.

15.15.271 During the construction phase, the cumulative magnitude of change of the MDO will be **Low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. The limiting factors in terms of the cumulative magnitude of change will be the separation distance between the viewpoint and the construction of the Phase 1 offshore wind farms which will be more than 20km for all of them and will mean the WTGs will appear as relatively small. The construction of Dublin Array offshore infrastructure will nonetheless be seen as an extension to the immediate north of the construction of CWP and will form a notable addition to the horizontal extent of wind farm development in this view.

15.15.272 During the operational phase, the cumulative magnitude of change of the MDO will be **Low**. The cumulative wireline in Figure 3.15.48 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be located to the east of the viewpoint at a minimum of 11.1km and appear set to the north of CWP at a minimum of 24.5km from the viewpoint. The cumulative magnitude of change will be moderated by a combination of the separation distance between the viewpoint and the Phase 1 offshore wind farms and the baseline influence from the surrounding upland landscape. The addition of Dublin Array offshore infrastructure will be seen as an extension to CWP and will present a broad additional horizontal extent.

Cumulative Significance of Effect

15.15.273 The cumulative effect of the MDO during the construction and operational phases will be not significant at a **Moderate-minor** level owing to the **Medium-high** sensitivity of the visual receptors and the **Low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.274 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.74 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 24: Forty Foot bathing area

Main Assessment

15.15.275 The effect of the Dublin Array offshore infrastructure on visual receptors on the Forty Foot bathing area during the construction and operational phases will be significant at a Major-moderate level for swimmers, walkers and residents, and at a Moderate level for road-users. This will result from the combination of the Medium-high sensitivity for swimmers, walkers and residents, the Medium sensitivity for road-users, and the Medium-high magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.276 The cumulative wireline in Figure 3.15.49 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure MDO will be located a minimum of 11.1km from the viewpoint with all 39 WTGs fully visible, albeit with some stacking and overlap occurring. CWP is the only other offshore wind farm theoretically visible although actual visibility will be negligible owing to the location of CWP behind the intervening coastal edge.

15.15.277 During the construction and operational phases, there will be no cumulative magnitude of change as no other offshore wind farms will be readily visible from this viewpoint.

Cumulative Significance of Effect

15.15.278 During the construction and operational phases of the MDO, there will be no cumulative effect as no other offshore wind farms will be readily visible from this viewpoint.

Alternative Design Options

15.15.279 There will be no cumulative effect as no other offshore wind farms will be readily visible from this viewpoint.

Viewpoint 25: Ballyedmonduff Road

Main Assessment

15.15.280 The effect of the Dublin Array offshore infrastructure on visual receptors on Ballyedmonduff Road during the construction and operational phases will be significant at a Moderate level. This will result from the combination of the Medium-high sensitivity for residents, and Medium sensitivity for road-users, and the Medium magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.281 The cumulative wireline in Figure 3.15.50 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be located a minimum of 18.3km from the viewpoint with all 39 WTGs fully visible, albeit with some stacking and overlap occurring. CWP will also be visible at 27.8km, although largely screened by the intervening landform of the coastal hills such that only a small proportion of the WTGs will be visible at the northern end of the array. While NISA is also shown to be theoretically visible at a minimum of 47.8km, actual visibility is screened by intervening trees.

15.15.282 During the construction and operational phases, the cumulative magnitude of change of the MDO will be **Low**. While on a clear day the WTGs at the northern end of the CWP array will be visible from this viewpoint, their influence on the cumulative situation will be limited by the separation distance of 27.8km, the small number and small scale of the WTGs visible and their location to the south-east while the principal orientation of the view is towards the east. While Dublin Array offshore infrastructure will add a broad horizontal extent of WTGs to this view, the effect will relate to the project alone rather than a cumulative effect with CWP.

Cumulative Significance of Effect

15.15.283 The cumulative effect of the MDO during the construction and operational phases will be not significant at a **Moderate-minor** level owing to the **Medium-high** sensitivity of the visual receptors and the **Low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.284 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.76 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Viewpoint 26: Poolbeg Pier

Main Assessment

15.15.285 The effect of the Dublin Array offshore infrastructure on visual receptors on Poolbeg Pier during the construction and operational phases will be significant at a Moderate level. This will result from the combination of the Medium-high sensitivity and the Medium magnitude of change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.286 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the viewpoint by a minimum of 31.3km. CWP will comprise 60 WTGs at a height of 314 m in height, which will be seen behind and to the left of the coastal edge around Dún Laoghaire. The cumulative wireline in Figure 3.15.51 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will be seen at a minimum of 16.3km and with all WTGs seen to their full extents. On clear days, NISA will be visible to the north, at a minimum distance of 36.4km from the viewpoint. It comprises 35 WTGs at a height of 315 m in height, although partly screened by the intervening landform, offset from the main attraction of the seaward views and too distant to have a notable bearing on the cumulative assessment.

15.15.287 During the construction phase, the cumulative magnitude of change of the MDO will be **Low**. It is assumed that the Phase 1 offshore wind farms will be constructed during a similar time frame and that as a result, the view will be altered by the presence of construction vessels, the emergence of offshore WTGs and associated infrastructure, and the use of artificial lighting to aid construction during hours of darkness. In terms of the cumulative magnitude of change, this will be moderated by the relatively limited influence of the construction of CWP, which will be seen at a minimum of 31.3km and seen to occupy a contained proportion of the open seascape to the south-east and partly screened by the coastal landform. The construction of the Dublin Array offshore infrastructure will have a notable influence on this viewpoint, owing to its closer range and broader extents, albeit relating more to the project alone than the additional effect in respect of the cumulative context.

15.15.288 During the operational phase, the cumulative magnitude of change of the MDO will be **Low**. The cumulative wireline in Figure 3.15.51 (SLVIA Visualisations Appendix) shows that Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the south-eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 31.3km and occupying a much more contained extent of the seascape view. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP in terms of vertical scale and horizontal extent.

Cumulative Significance of Effect

15.15.289 The cumulative effect of the MDO during the construction and operational phases will be not significant at a **Moderate-minor** level owing to the **Medium-high** sensitivity of the visual receptors and the **Low** cumulative magnitude of change.

Alternative Design Options

15.15.290 The cumulative effect of the ADOs on this viewpoint during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative wireline in Figures 3.15.77 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

Principal Visual Receptors

PVR 1: DART / Irish Rail Southeastern Commuter Train

Main assessment

15.15.291 The effect of the Dublin Array offshore infrastructure on DART rail passengers will be significant at a Major-moderate or Moderate level during the construction and operational phase on the section between Six Mile Point and Merrion Gate, albeit with some lengths within this section undergoing No effect where no visibility occurs. The significant effect will result from the combination of the Medium-high or Medium sensitivity of the visual receptors and view, and the Medium-high, Medium or Medium-low magnitude of change. There will be no effect or a not significant effect at a Moderate-minor or Minor level on the sections between Merrion to Dublin, and Dublin to Howth, as there will be limited or no visibility owing to the inset location in these sections and the enclosure from buildings and tree cover in parts.

Cumulative magnitude of change

15.15.292 The most relevant cumulative development to this assessment is CWP which will be located 2.9km to the south-east of Dublin Array offshore infrastructure and will comprise 60 WTGs at a height of 314 m in height. The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows that theoretical visibility of Dublin Array offshore infrastructure and CWP will occur along much of the length of the DART route, although actual visibility will be greatly reduced by the extent of intervening built form and/ or vegetation along the route. Arklow Bank Phase 2 will have an influence on the southern section of the train route as shown in the cumulative ZTV in Figure 3.15.18 (SLVIA GIS Figures Appendix). While there are also localised patches of theoretical intervisibility with NISA shown in the cumulative ZTV in Figure 3.15.20 (SLVIA GIS Figures Appendix) visibility will be too limited for this development to have a notable bearing on the cumulative assessment.

15.15.293 The cumulative magnitude of change will be variable along the length of the DART train route owing to the changing enclosure and openness along the route, proximity to the coastal edge and proximity to the Dublin Array offshore Infrastructure and other cumulative developments. During the construction and operational phases, the section of train line between Merrion and Wicklow has potential to be affected owing to its close proximity to the coastline and the general openness of views, albeit with some sections enclosed by landform, engineered cuttings, vegetation or buildings. Most notably, where the train line passes through Shankill and Dalkey, where the route turns inland and enclosure by urban development precludes seaward views, and through the tunnelled section to the south of Bray Head.

- 15.15.294 The cumulative magnitude of change in the southern section of the train line, between Wicklow and Six Mile Point will be **Medium**. This reflects the influence that CWP will have on this section and the additional influence that Dublin Array offshore infrastructure will present by extending wind farm development further north across the open seascape, with CWP seen to the east and north-east within ranges of approximately 13 to 14km and Dublin Array offshore infrastructure seen to the north-east within ranges of approximately 12 to 20km. The offshore infrastructure will appear at variance with the simple, open and largely undeveloped coastal plain and seascape, which characterise the baseline views in this southern section of the route, where the train line sits on the coastline and views are typically open.
- 15.15.295 From Six Mile Point to Greystones, the cumulative magnitude of change will increase to **Medium-high**, as Dublin Array offshore infrastructure comes within a minimum separation distance of 9 to 11km and will be seen added to a cumulative baseline comprising the extensive albeit slightly more distant CWP at 11 to 13km. To the north of Greystones, there will be **No change** where the train line passes through the tunnel, beyond which the cumulative magnitude of change will reduce to **Medium-low** as the influence of CWP reduces with greater distance and increasing screening from the intervening coastal landform
- 15.15.296 Through Bray and Shankill there will be **No change** as views will be largely contained by surrounding built development. A **Medium-low** cumulative magnitude of change will, however, occur through the intermediate area of Shanganagh, where the slight inset of the train line will mean that tree cover will form partial screening despite the largely open nature of this parkland landscape allowing views of Dublin Array offshore infrastructure and limited visibility of more distant and partly screened CWP.
- 15.15.297 Visibility around Killiney Bay will be intermittent owing to enclosure from built form and cuttings, and the overall cumulative magnitude of change will be **Low**, reflecting the limited visibility of CWP despite the full and relatively close-range visibility of the Dublin Array offshore infrastructure which will occupy most of the seascape view. There will be **No change** where the train line cuts inland and through Dún Laoghaire owing to the sunken and enclosed train route and while there will still be some visibility of the Dublin Array offshore infrastructure from this section, CWP will be largely screened by the intervening coastal landform.
- 15.15.298 Visibility opens up again where the train line sits tight on the coastline of Blackrock and Merrion, but because CWP will be largely screened from this section by the Dalkey Headland, and only the northern extent of the Dublin Array offshore infrastructure will be visible, the change will be **Negligible**. Beyond Merrion, the train line is routed away from the coast and the enclosure of urban development ensures **No change**.

Cumulative significance of effect

15.15.299 The cumulative effect of the Dublin Array offshore infrastructure MDO on rail passengers will be significant at a **Moderate** level during the construction and operational phases on the section between Wicklow and Merrion, albeit with some lengths within this section undergoing **No effect** where no visibility occurs. The significant effects will result from the combination of the **Medium-high** or **Medium** sensitivity of the visual receptors and view, and the **Medium** or **Medium-low** magnitude of change. There will be either **No effect** or a not significant effect at a **Moderate-minor** or **Minor** level on the sections from Merrion to Dublin, and Dublin to Howth, as there will be no or limited visibility of the cumulative developments owing to their inset location and enclosure from buildings and tree cover in parts.

Alternative Design Options

15.15.300 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.53, 3.15.55, 3.15.57, 3.15.62 and 3.15.64 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 2: N11

Main assessment

15.15.301 The effect of the Dublin Array offshore infrastructure on road-users of the N11 during the construction and operational phases will be not significant at a **Moderate-minor** or **Minor** level. This finding reflects the limited extent of visibility experienced from the N11 despite the occurrence of small, localised patches of visibility. This will result from the combination of the **Medium** or **Medium-low** sensitivity of the visual receptors and views, and the **Medium-low** magnitude of change in those localised areas where distant and limited extents of visibility will occur.

Cumulative magnitude of change

15.15.302 The most relevant cumulative development to this assessment is CWP which will be located 2.9km to the south-east of Dublin Array offshore infrastructure and will comprise 60 WTGs at a height of 314 m in height. The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows that theoretical visibility of Dublin Array offshore infrastructure and CWP will occur along much of the length of the N11, although actual visibility will be greatly reduced by the extent of intervening built form and/ or vegetation along the route. There will also be no theoretical visibility through the Glen of the Downs and extending north to the Bray junctions. Arklow Bank Phase 2 may also have an influence on the southern section of the N11 as shown in the cumulative ZTV in Figure 3.15.18 (SLVIA GIS Figures Appendix) although this will be notably limited by the screening effect of the Wicklow headland.

15.15.303 The cumulative magnitude of change will be variable along the length of the N11 owing to the changing enclosure and openness along the route, proximity to the coastal edge and proximity to the Dublin Array offshore Infrastructure and other cumulative developments. The main assessment highlighted the very limited extents of the N11 from which the Dublin Array offshore infrastructure will be visible owing principally to the screening effect of landform, tree cover and other vegetation along the route, as well as more localised built form in settlements.

15.15.304 The same restrictions to the extent of visibility will apply to CWP, such that cumulative effects will be largely limited to the same sections identified in the main assessment; namely between Junctions 16 and 18 (west of Wicklow) and north of Newcastle junction (east of Trudder). During the construction and operational phases, the cumulative magnitude of change from these sections of the N11 will be **Medium-low**. This rating reflects the separation distance of approximately 15 to 23km between the N11 and both CWP and Dublin Array offshore infrastructure, which as a result will appear relatively distant and contained in terms of extents. The inset location of the N11, away from the coastal edge also means that the views are characterised more by the surrounding landscape than the more distant seascape, and this further moderates the effect of the offshore infrastructure on the view.

15.15.305 Along the remaining sections of the N11, there will be a **Low** or **Negligible** cumulative magnitude of change where glimpsed views of CWP and Dublin Array offshore infrastructure will arise and with **No change** along the majority of the route where there will be no visibility.

Cumulative significance of effect

15.15.306 The cumulative effect of the Dublin Array offshore infrastructure MDO on road-users of the N11 during the construction and operational phases will be **Not significant** at a **Moderate-minor** or **Minor** level. This finding reflects the limited extent of visibility experienced from the N11 despite the occurrence of small, localised patches of visibility. This will result from the combination of the **Medium** sensitivity of the visual receptors and views, and the **Medium-low** cumulative magnitude of change in those localised areas where distant and limited extents of visibility will occur.

Alternative Design Options

15.15.307 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.54 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 3: Bray to Rathnew coastal road (R761)

Main Assessment

15.15.308 The effect of the Dublin Array offshore infrastructure on road-users of the R761 during the construction and operational phases will be not significant at a Moderate-minor or Minor level. This finding reflects the limited extent of visibility experienced from the R761 despite the occurrence of small, localised patches of visibility. This will result from the combination of the Medium-high or Medium sensitivity of the visual receptors and views, and the Low or Negligible magnitude of change in those sections where distant and limited extents of visibility will occur. In localised sections where open and elevated views occur, the magnitude of change will be Medium-high or Medium and the effect will be significant at a Major-moderate or Moderate level. Along the majority of the route there will be No effect as a result of no visibility.

Cumulative magnitude of change

15.15.309 The most relevant cumulative development to this assessment is CWP which will be located 2.9km to the south-east of Dublin Array offshore infrastructure and will comprise 60 WTGs at a height of 314 m in height. The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows that theoretical visibility of Dublin Array offshore infrastructure and CWP will occur along much of the length of the R761, although actual visibility will be greatly reduced by the extent of intervening built form and/ or vegetation along the route. There will also be no theoretical visibility along the section of the R761 to the west of Bray Head owing to the screening effect of this landform. Arklow Bank Phase 2 may also have an influence on the southern section of the R761 as shown in the cumulative ZTV in Figure 3.15.18 (SLVIA GIS Figures Appendix) although this will be notably limited by the screening effect of the Wicklow headland.

15.15.310 The cumulative magnitude of change will be variable along the length of the R761 owing to the changing enclosure and openness along the route, proximity to the coastal edge and proximity to the Dublin Array offshore Infrastructure and other cumulative developments. The main assessment highlighted the very limited extents of the R761 from which the Dublin Array offshore infrastructure will be visible owing principally to the screening effect of landform, tree cover and other vegetation along the route, as well as more localised built form in settlements.

15.15.311 The same restrictions to the extent of visibility will apply to CWP, such that cumulative effects will be largely limited to the same sections identified in the main assessment; namely to the south of Bray Head and the settlement of Windgate, and across the eastern flank of Leabeg Upper between the settlements of Kilcoole and Newcastle. During the construction and operational phases, the cumulative magnitude of change from these sections of the R761 will be **Medium**. This rating reflects the separation distances of approximately 11km and 15km between the R761 south of Windgate and Dublin Array offshore infrastructure and CWP respectively, and the separation distances of approximately 13km and 17km between the R761 at Leabeg Upper and Dublin Array offshore infrastructure and CWP respectively.

15.15.312 Although the offshore infrastructure will appear relatively distant and contained in terms of extents, the addition of Dublin Array offshore infrastructure to a cumulative baseline comprising CWP will from a notable cumulative change in the views of road-users by increasing the extent of this type of development in a previously undeveloped and scenic aspect of the views.

15.15.313 Along the remaining sections of the R761, there will be a **Low** or **Negligible** cumulative magnitude of change where glimpsed views of CWP and Dublin Array offshore infrastructure will arise and with **No change** where there will be no visibility.

Cumulative significance of effect

15.15.314 The cumulative effect of the Dublin Array offshore infrastructure MDO on road-users of the R761 during the construction and operational phases will be **not significant** at a **Moderate-minor** or **Minor** level. This finding reflects the limited extent of visibility experienced from the R761 despite the occurrence of small, localised patches of visibility. This will result from the combination of the **Medium** or **Medium-high** sensitivity of the visual receptors and views, and the **Low** or **Negligible** magnitude of change, or **No change**, along the majority of the route. Localised significant effects at a **Moderate** level will occur to the north of Greystones and to the north of Newcastle, albeit over relatively short sections. The effects will be adverse, long-term and reversible.

Alternative Design Options

15.15.315 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 4: Bray to Greystones Cliff Walk

Main Assessment

15.15.316 The effect of the Dublin Array offshore infrastructure on walkers on the Bray to Greystones Cliff Walk during the construction and operational phases will be significant at a Major-moderate level owing to the combination of the Medium-high sensitivity of the visual receptors and the Medium-high magnitude of change.

Cumulative Magnitude of Change

15.15.317 The cumulative ZTV in Figures 3.15.19 (SLVIA GIS Figures Appendix) shows that inter-visibility of Dublin Array offshore infrastructure and CWP will be practically continuous along the length of the cliff walk, albeit with the extent to which CWP will be visible will be reduced by the screening effect of the intervening coastal landform. The cumulative magnitude of change will be **Medium**. Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 17km and with the southern part screened by the intervening landform of Bray Head from the northern part of the route. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP.

Cumulative Significance of Effect

15.15.318 The cumulative effect of the MDO on walkers on the Bray to Greystones Cliff Walk will be significant at a **Major-moderate** level owing to a combination of the **Medium-high** sensitivity and **Medium** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.319 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.57 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 5: Howth Head Loop

Main Assessment

15.15.320 The effect of the Dublin Array offshore infrastructure on walkers on the southern and eastern sections of the Howth Head Loop during the construction and operational phases will be significant at a Major-moderate level owing to the combination of the Medium-high sensitivity of the visual receptors and the Medium-high magnitude of change. There will be no change in the remaining sections as there will be no visibility.

Cumulative Magnitude of Change

15.15.321 The cumulative ZTV in Figures 3.15.19 (SLVIA GIS Figures Appendix) shows that the southern and eastern sections of the Howth Head Loop will be affected by Dublin Array offshore infrastructure MDO seen in conjunction with CWP. The cumulative magnitude of change will be **Medium-low**. In the views of walkers on the Howth Head Loop, the Dublin Array WTGs will be more prominent and larger in scale owing to their location at a minimum of 9 and 12km compared to the location of CWP at 28 to 31km. While the addition of Dublin Array offshore infrastructure will add to the concentration of WTGs in this sector, the cumulative magnitude of change will be moderated by the extent of overlap, and the limited influence from CWP owing to its more distant location. The separation of the offshore wind farms from the developed coastlines and association with the open and undeveloped seascape will accentuate the cumulative magnitude of change.

15.15.322 In the northern sections of the Howth Head Loop, there is the potential that walkers will experience visibility of NISA at approximately 30 to 32km to the north. While this will not be seen in conjunction with Dublin Array offshore infrastructure and CWP, it will give rise to a sequential effect on walkers undertaking the full loop. The cumulative magnitude of change will, however, be **Low** owing to a combination of the notable separation distance between NISA and the walkers, the relatively small scale of the NISA WTGs as experienced from this distance and the influence of built development on Howth Head and the coastline extending north.

Cumulative Significance of Effect

15.15.323 In the southern and eastern sections of the Howth Head Loop, where walkers experience open and/ or elevated views towards the sea, there is the potential for significant cumulative effects to arise at a **Moderate** level owing to a combination of the **Medium-high** sensitivity and **Medium-low** cumulative magnitude of change. In the northern sections, the effect will be not significant at a **Moderate-minor** level owing the **Low** cumulative magnitude of change and to a limited influence from NISA, despite there being no visibility from Dublin Array offshore infrastructure. The effects will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.324 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.69 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 6: The Wicklow Way

Main Assessment

- 15.15.325 The effect of the Dublin Array offshore infrastructure on walkers on the Wicklow Way during the construction and operational phases will be not significant at a Moderate or Moderate-minor level or there will be No effect owing to no visibility. This will result from the combination of the Medium-high sensitivity of the visual receptors and the Low magnitude of change or No change owing to no visibility.

Cumulative Magnitude of Change

- 15.15.326 The ZTV in Figure 3.15.15b (SLVIA GIS Figures Appendix) shows the limited extent to which Dublin Array offshore infrastructure will be theoretically visible along this route, with actual visibility reduced further by the extent of commercial forestry which encloses much of the route. The main areas of theoretical visibility occur in the northern section, between Glencullen and Djouce Mountain. The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows that there will be some degree of inter-visibility with CWP, typically over the more elevated and open east facing slopes.

- 15.15.327 Walkers on many of the sections of the Wicklow Way will not be affected by the cumulative developments as there will be no visibility owing to the screening effect of landform and/ or commercial forestry. In respect of these receptors, there will be **No change**. While there is the potential for walkers in localised parts to experience views of Dublin Array offshore infrastructure in conjunction with CWP, the cumulative magnitude of change in these parts will be **Low** owing to a combination of the minimum distances of approximately 18km and 21km between the Wicklow Way and the respective offshore wind farms, the greater influence from and association with the surrounding uplands rather than the more distant seascape and the limited extents to which the cumulative developments will be visible.

Cumulative Significance of Effect

- 15.15.328 There will be **No effect** in respect of the majority of the walkers on the Wicklow Way owing to the screening effect of intervening landform and/ or vegetation. Where limited visibility of Dublin Array offshore infrastructure MDO and CWP occurs, there will be a not significant effect at a **Moderate-minor** level owing to the **Medium-high** sensitivity and the **Low** cumulative magnitude of change. The effects will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

- 15.15.329 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.74 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 7: Wicklow

Main Assessment

15.15.330 The effect of the Dublin Array offshore infrastructure on the majority of visual receptors in Wicklow during the construction and operational phases will either be not significant at a Moderate-minor level or there will be No effect. This will result from the combination of the Medium-high sensitivity of the visual receptors and the Low magnitude of change or No change during both the construction and operational phases. There will be localised significant effects at a Moderate level where there are more elevated and/ or exposed locations with open seaward views towards the Dublin Array offshore infrastructure and a Medium magnitude of change will occur.

Cumulative Magnitude of Change

15.15.331 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from Wicklow by a minimum of approximately 13 to 14km. CWP will comprise 60 WTGs at a height of 314 m in height. NISA will be located at such a distance that it will not have a bearing on the cumulative effect on views from this settlement.

15.15.332 The majority of visual receptors in Wicklow will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of built form and/ or vegetation. In respect of these receptors, there will be **No change**. Where limited extents of visibility occur between or over buildings and/ or vegetation, there is the potential that the addition of Dublin Array offshore infrastructure MDO to CWP will be visible but owing to the limited extents to which either or both offshore wind farms will be visible, the cumulative magnitude of change will be **Low**.

15.15.333 In localised parts of the town where open and / or elevated views extend seawards allowing residents, walkers and/ or road-users visibility of the cumulative context, then there is the potential that a **Medium** cumulative magnitude of change will arise during both the construction and operational phases. CWP will occupy a sizeable proportion of the seascape, extending north from Wicklow headland. The closer range and greater horizontal extent of CWP means that its WTGs will have a notable influence on the view during both construction and operation. It is in this context that the cumulative magnitude of change arising from the addition of Dublin Array offshore infrastructure MDO will be moderated, as it will not be seen as a new and unfamiliar feature in the seascape and will be seen at a slightly more distant range. Furthermore, there will be continuity in the appearance of the two offshore wind farms as the WTGs will appear of a comparable scale and they both follow a broadly linear layout parallel to the coastline. Dublin Array offshore infrastructure will, nonetheless, form a notable increase in the extent of offshore wind farm development readily visible across the seascape and its prominence will be accentuated by its more central location relative to the enclosing headlands.

Cumulative Significance of Effect

15.15.334 There will be **No effect** in respect of the majority of the visual receptors in Wicklow owing to the screening effect of intervening landform, built form and/ or vegetation. Where limited visibility occurs, there will be a not significant effect at a **Moderate-minor** level owing to the **Medium-high** sensitivity and the **Low** cumulative magnitude of change. Where visual receptors experience more open and/ or elevated views towards the sea, there is the potential for significant effects at a **Moderate** level to arise. The effects will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.335 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.52 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 8: Greystones

Main Assessment

15.15.336 The Dublin Array offshore infrastructure will have No effect on the majority of visual receptors in Greystones during the construction and operational phases. This will result from the combination of the Medium-high sensitivity of the visual receptors and the screening of the Dublin Array offshore infrastructure during both the construction and operational phases which will amount to No change. There will be localised significant effects at a Major-moderate level along the seafront and where there are more elevated and/ or exposed locations with open seaward views towards the Dublin Array offshore infrastructure and a Medium-high magnitude of change will occur.

Cumulative Magnitude of Change

15.15.337 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from the Greystones by a minimum of approximately 15 to 17km. CWP will comprise 60 WTGs at a height of 314 m in height. These will be seen south of Dublin Array offshore infrastructure which is at a minimum of approximately 9 to 11km and with all WTGs readily visible, albeit with some degree of overlap and stacking. NISA will be located at such a distance that it will not have a bearing on the cumulative effect experienced from this viewpoint.

15.15.338 The majority of visual receptors in Wicklow will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of built form and/ or vegetation. In respect of these receptors, there will be **No change**. Where limited extents of visibility occur between or over buildings and/ or vegetation, there is the potential that the addition of Dublin Array offshore infrastructure MDO to CWP will be visible but owing to the limited extents to which either or both offshore wind farms will be visible, the cumulative magnitude of change will be **Low**.

15.15.339 In localised parts of the town where open and / or elevated views extend seawards allowing residents, walkers and/ or road-users visibility of the cumulative context, then there is the potential that a **Medium** cumulative magnitude of change will arise during both the construction and operational phases. The cumulative magnitude of change relates principally to the additional horizontal extent that Dublin Array offshore infrastructure MDO will form across the visible seascape seafront and other open views from Greystones. Dublin Array offshore infrastructure will occupy the seascape that appears to the immediate north of CWP and will create the effect of continuous wind farm development across a substantial part of the visible seascape. The closer proximity of Dublin Array offshore infrastructure compared to CWP will mean that the Dublin Array WTGs will appear larger in scale and this disparity will add to the cumulative magnitude of change.

Cumulative Significance of Effect

15.15.340 There will be **No effect** in respect of visual receptors across the majority of the settlement. Where limited visibility occurs, there will be a not significant effect at a **Moderate-minor** level owing to the Medium-high sensitivity and the Low cumulative magnitude of change. Where visual receptors experience more open and/ or elevated views towards the sea, there is the potential for significant effects at a **Moderate** level to arise. The effects will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.341 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.55 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 9: Bray

Main Assessment

15.15.342 The Dublin Array offshore infrastructure will have No effect on the majority of visual receptors in Bray during the construction and operational phases. This will result from the combination of the Medium-high sensitivity of the visual receptors and the screening of the Dublin Array offshore infrastructure during both the construction and operational phases which will amount to No change. There will be localised significant effects at a Major-moderate level along the seafront and where there are more elevated and/ or exposed locations with open seaward views towards the Dublin Array offshore infrastructure and where a Medium-high magnitude of change will occur.

Cumulative Magnitude of Change

15.15.343 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from Bray by a minimum of approximately 18 to 20km. CWP will comprise 60 WTGs at a height of 314 m in height, the southern part of which will be obscured by Bray Head. The addition of Dublin Array offshore infrastructure MDO will be visible at a minimum of approximately 11 to 13km. NISA will be seen beyond Howth Head and located at such a distance that it will not have a bearing on the assessment of significant cumulative effects from this settlement.

15.15.344 The majority of visual receptors in Bray will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of built form and/ or vegetation. In respect of these receptors, there will be **No change**. Where limited extents of visibility occur between or over buildings and/ or vegetation, there is the potential that the addition of Dublin Array offshore infrastructure MDO to CWP will be visible but owing to the limited extents to which either or both offshore wind farms will be visible, the cumulative magnitude of change will be **Low**.

15.15.345 In localised parts of the town along the seafront and where open and / or elevated views extend seawards allowing residents, walkers and/ or road-users visibility of the cumulative context, then there is the potential that a **Medium-low** cumulative magnitude of change will arise during both the construction and operational phases. Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a greater distance and with the southern part screened by the intervening landform of Bray Head. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP.

Cumulative Significance of Effect

15.15.346 There will be **No effect** in respect of visual receptors across the majority of the settlement. Where limited visibility occurs, there will be a not significant effect at a **Moderate-minor** level owing to the Medium-high sensitivity and the Low cumulative magnitude of change. Where visual receptors experience more open and/ or elevated views towards the sea, there is the potential for significant effects at a **Moderate** level to arise. The effects will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.347 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.58 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 10: Shanganagh

Main Assessment

15.15.348 The Dublin Array offshore infrastructure will have No effect on the majority of visual receptors in Shanganagh during the construction and operational phases. This will result from the combination of the Medium-high sensitivity of the visual receptors and the screening of the Dublin Array offshore infrastructure during both the construction and operational phases which will amount to No change. There will be localised significant effects at a Major or Major-moderate level along the seafront and where there are more elevated and/ or exposed locations with open seaward views towards the Dublin Array offshore infrastructure and where a High or Medium-high magnitude of change will occur.

Cumulative Magnitude of Change

15.15.349 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure MDO and offset from Shanganagh by a minimum of approximately 19 to 21km. CWP will comprise 60 WTGs at a height of 314 m in height. Dublin Array offshore infrastructure will be seen at a minimum of approximately 11 to 12km. NISA will be too distant to have a notable bearing on the cumulative assessment.

15.15.350 The majority of visual receptors in Shanganagh will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of built form and/ or vegetation. In respect of these receptors, there will be **No change**. Where limited extents of visibility occur between or over buildings and/ or vegetation, there is the potential that the addition of Dublin Array offshore infrastructure to CWP will be visible but owing to the limited extents to which either or both offshore wind farms will be visible, the cumulative magnitude of change will be **Low**.

15.15.351 In localised parts of the town along the seafront and where open and / or elevated views extend seawards allowing residents, walkers and/ or road-users visibility of the cumulative context, then there is the potential that a **Medium** cumulative magnitude of change will arise during both the construction and operational phases. Dublin Array offshore infrastructure MDO will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 20.4km and occupying a much more contained extent of the seascape view. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP in terms of vertical scale and horizontal extent.

Cumulative Significance of Effect

15.15.352 There will be **No effect** in respect of visual receptors across the majority of the settlement. Where limited visibility occurs, there will be a not significant effect at a **Moderate-minor** level owing to the **Medium-high** sensitivity and the **Low** cumulative magnitude of change. Where visual receptors experience more open and/ or elevated views towards the sea, there is the potential for significant effects at a **Moderate** level to arise. The effects will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.353 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.60 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 11: Shankill / Ballybrack

Main Assessment

15.15.354 The Dublin Array offshore infrastructure will have No effect on the majority of visual receptors in Shankill / Ballybrack during the construction and operational phases. This will result from the combination of the Medium-high sensitivity of the visual receptors and the screening of the Dublin Array offshore infrastructure during both the construction and operational phases which will amount to No change. There will be localised significant effects at a Major or Major-moderate level along the seafront and where there are more elevated and/ or exposed locations with open seaward views towards the Dublin Array offshore infrastructure and where a High or Medium-high magnitude of change will occur.

Cumulative Magnitude of Change

- 15.15.355 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure MDO and offset from Shanganagh by a minimum of approximately 19 to 21km. CWP will comprise 60 WTGs at a height of 314 m in height. Dublin Array offshore infrastructure will be seen at a minimum of approximately 11 to 12km. NISA will be too distant to have a notable bearing on the cumulative assessment.
- 15.15.356 The majority of visual receptors in Shanganagh will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of built form and/ or vegetation. In respect of these receptors, there will be **No change**. Where limited extents of visibility occur between or over buildings and/ or vegetation, there is the potential that the addition of Dublin Array offshore infrastructure MDO to CWP will be visible but owing to the limited extents to which either or both offshore wind farms will be visible, the cumulative magnitude of change will be **Low**.
- 15.15.357 In localised parts of the town along the seafront and where open and / or elevated views extend seawards allowing residents, walkers and/ or road-users visibility of the cumulative context, then there is the potential that a **Medium** cumulative magnitude of change will arise during both the construction and operational phases. Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 20.4km and occupying a much more contained extent of the seascape view. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP in terms of vertical scale and horizontal extent.

Cumulative Significance of Effect

- 15.15.358 There will be **No effect** in respect of visual receptors across the majority of the settlement. Where limited visibility occurs, there will be a not significant effect at a **Moderate-minor** level owing to the Medium-high sensitivity and the Low cumulative magnitude of change. Where visual receptors experience more open and/ or elevated views towards the sea, there is the potential for significant effects at a **Moderate** level to arise. The effects will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.359 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.60 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 12: Killiney

Main Assessment

15.15.360 The effect of the Dublin Array offshore infrastructure on the majority of visual receptors in Wicklow during the construction and operational phases will either be not significant at a Moderate-minor level or there will be No effect. This will result from the combination of the Medium-high or Medium sensitivity of the visual receptors and the Low or No change magnitude of change during both the construction and operational phases. There will be localised significant effects at a Major level where there are more elevated and/or exposed locations with open seaward views towards the Dublin Array offshore infrastructure and where a High magnitude of change will occur.

Cumulative Magnitude of Change

15.15.361 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from Killiney by a minimum of approximately 21 to 23km. CWP will comprise 60 WTGs at a height of 314 m in height. Dublin Array offshore infrastructure MDO will be seen at a minimum of 10 to 12km. On clear days NISA will be visible to the north, at a minimum distance of 42.7km and Arklow Bank Phase 2 will be visible to the south, at a minimum distance of 41.0km from the viewpoint. The distant location of NISA and Arklow Bank Phase 2, their small-scale, limited horizontal extents and partial concealment by landform means they will not have a notable bearing on the cumulative assessment.

15.15.362 The majority of visual receptors in Killiney will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of built form including high walls and/or vegetation. In respect of these receptors, there will be **No change**. Where limited extents of visibility occur between or over buildings and/or vegetation, there is the potential that the addition of Dublin Array offshore infrastructure MDO to CWP will be visible but owing to the limited extents to which either or both offshore wind farms will be visible, the cumulative magnitude of change will be **Low**.

15.15.363 In localised parts of this area along the seafront and where open and / or elevated views extend seawards allowing residents, walkers and/ or road-users visibility of the cumulative context, then there is the potential that a **Medium-low** cumulative magnitude of change will arise during both the construction and operational phases. Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a minimum of 22.7km and occupying a much more contained extent of the seascape view. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP in terms of vertical scale and horizontal extent.

Cumulative Significance of Effect

15.15.364 There will be **No effect** in respect of visual receptors across the majority of Killiney. Where limited visibility occurs, there will be a not significant effect at a **Moderate-minor** level owing to the Medium-high or Medium sensitivity and the **Low** cumulative magnitude of change. Where visual receptors experience more open and/ or elevated views towards the sea, there is the potential for significant effects at a **Moderate** level to arise. The effects will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.365 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figures 3.15.61 and 3.15.62 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 13: Dalkey

Main Assessment

15.15.366 The effect of the Dublin Array offshore infrastructure on the majority of visual receptors in Dalkey during the construction and operational phases will either be not significant at a Moderate-minor level or there will be No effect. This will result from the combination of the Medium-high or Medium sensitivity of the visual receptors and the Low or No change magnitude of change during both the construction and operational phases. There will be localised significant effects at a Moderate level where there are more elevated and/ or exposed locations with open seaward views towards the Dublin Array offshore infrastructure and where a Medium-high magnitude of change will occur.

Cumulative Magnitude of Change

- 15.15.367 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from Dalkey by a minimum of approximately 22 to 24km. CWP will comprise 60 WTGs at a height of 314 m in height, which will be located in the open seascape to the south-east of the settlement. Dublin Array offshore infrastructure MDO will be located at a minimum of approximately 9 to 11km albeit with some screening by the intervening landform of Dalkey Island. NISA will be too distant to have a notable bearing on the cumulative assessment.
- 15.15.368 The majority of visual receptors in Dalkey will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of built form and/ or vegetation. In respect of these receptors, there will be **No change**. Where limited extents of visibility occur between or over buildings and/ or vegetation, there is the potential that the addition of Dublin Array offshore infrastructure MDO to CWP will be visible but owing to the limited extents to which either or both offshore wind farms will be visible, the cumulative magnitude of change will be **Low**.
- 15.15.369 In localised parts of the town, along the seafront and where open and / or elevated views extend seawards allowing residents, walkers and/ or road-users visibility of the cumulative context, then there is the potential that a **Medium-low** cumulative magnitude of change will arise during both the construction and operational phases. Dublin Array offshore infrastructure will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a greater distance and occupying a much more contained extent of the seascape view. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP in terms of vertical scale and horizontal extent.

Cumulative Significance of Effect

- 15.15.370 There will be **No effect** in respect of visual receptors across the majority of the settlement. Where limited visibility occurs, there will be a not significant effect at a **Moderate-minor** level owing to the **Medium-high** sensitivity and the **Low** cumulative magnitude of change. Where visual receptors experience more open and/ or elevated views towards the sea, there is the potential for significant effects at a **Moderate** level to arise. The effects will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.371 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.63 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 14: Dún Laoghaire

Main Assessment

15.15.372 The effect of the Dublin Array offshore infrastructure on the majority of visual receptors in Dún Laoghaire during the construction and operational phases will either be not significant at a Moderate-minor level or there will be No effect. This will result from the combination of the Medium-high sensitivity of the visual receptors and the Low magnitude of change or No change during both the construction and operational phases. There will be localised significant effects at a Major-moderate level where there are more elevated and/ or exposed locations with open seaward views towards the Dublin Array offshore infrastructure and where a Medium-high magnitude of change will occur.

Cumulative Magnitude of Change

15.15.373 The majority of visual receptors in Dún Laoghaire will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of landform, built form and/ or vegetation. In respect of these receptors, there will be **No change**.

15.15.374 The cumulative effect on visual receptors in Dún Laoghaire who will experience an open seaward view will be limited. NISA lies to the north-east at a minimum of approximately 40km and while a small number of blades are potentially theoretically visible, actual visibility will be reduced by the screening effect of intervening built form and tree cover. Similarly, theoretical visibility of a small number of CWP blades at a minimum of approximately 25km to the south will be set behind the intervening landform and screened by intervening built form and tree cover. The negligible influence from these cumulative developments means that the cumulative magnitude of change will be **Negligible**, despite the clear visibility of the northern part of the Dublin Array offshore infrastructure MDO at a minimum of approximately 12km from the town.

Cumulative Significance of Effect

15.15.375 There will be **No effect** in respect of visual receptors across the majority of the settlement where no visibility will arise. Where visibility occurs, there will be a not significant effect at a **Minor** level owing to the **Medium-high** sensitivity and the **Negligible** cumulative magnitude of change. Although Dublin Array offshore infrastructure will be readily visible from open and/ or elevated parts of the settlement, the very limited visibility of the other cumulative developments reduces the cumulative interactions.

Alternative Design Options

15.15.376 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.64 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 15: Monkstown / Blackrock

Main Assessment

15.15.377 The effect of the Dublin Array offshore infrastructure on the majority of visual receptors in Monkstown / Blackrock during the construction and operational phases will either be not significant at a Moderate-minor level or there will be No effect. This will result from the combination of the Medium-high or Medium sensitivity of the visual receptors and the Low or No change magnitude of change during both the construction and operational phases. There will be localised significant effects at a Moderate level where there are more elevated and/ or exposed locations with open seaward views towards the Dublin Array offshore infrastructure.

Cumulative Magnitude of Change

15.15.378 The majority of visual receptors in Monkstown and Blackrock will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of landform, built form and/ or vegetation. In respect of these receptors, there will be **No change**.

15.15.379 The cumulative effect on visual receptors in Monkstown and Blackrock who experience an open seaward view will be limited. NISA lies to the north-east at a minimum of approximately 40km and while a small number of blades are potentially theoretically visible, actual visibility will be reduced by the screening effect of intervening built form and tree cover. Similarly, theoretical visibility of a small number of CWP blades at a minimum of approximately 29km to the south-east will be set behind intervening landform and screened by intervening built form and tree cover. The negligible influence from these cumulative developments means that the cumulative magnitude of change will be **Negligible**, despite the clear visibility of the northern part of the Dublin Array offshore infrastructure MDO at a minimum of approximately 15km.

Cumulative Significance of Effect

15.15.380 There will be **No effect** in respect of visual receptors across the majority of the settlement where no visibility will arise. Where visibility occurs, there will be a not significant effect at a **Minor** level owing to the **Medium-high** sensitivity and the **Negligible** cumulative magnitude of change. Although Dublin Array offshore infrastructure MDO will be readily visible from open and/ or elevated parts of the settlement, the very limited visibility of the other cumulative developments reduces the cumulative interactions.

Alternative Design Options

15.15.381 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 16: Sandymount

Main Assessment

15.15.382 The effect of the Dublin Array offshore infrastructure on the majority of visual receptors in Sandymount during the construction and operational phases will either be not significant at a Moderate-minor level or there will be No effect. This will result from the combination of the Medium-high sensitivity of the visual receptors and the Low or No change magnitude of change during both the construction and operational phases. There will be localised significant effects at a Moderate level where there are more elevated and/ or exposed locations with open seaward views towards the Dublin Array offshore infrastructure and where a Medium magnitude of change will arise.

Cumulative Magnitude of Change

15.15.383 The majority of visual receptors in Sandymount will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of landform, built form and/ or vegetation. In respect of these receptors, there will be **No change**.

15.15.384 The influence on visual receptors in Sandymount as a result of the cumulative context will be limited. NISA lies to the north-east at a minimum of approximately 39km and is almost fully screened by the intervening landform of Dublin Port. While there will be theoretical visibility of CWP at a minimum of approximately 32km to the south-east, this will comprise a small number of blades with the majority of the wind farm screened by the intervening low coastal hills to the south of Dún Laoghaire. The negligible influence from these cumulative developments means that the cumulative magnitude of change will be **Negligible**, despite visibility of the northern part of Dublin Array Infrastructure MDO at a minimum of approximately 18km.

Cumulative Significance of Effect

15.15.385 There will be **No effect** in respect of visual receptors across the majority of the settlement where no visibility will arise. Where visibility occurs, there will be a **not significant** effect at a **Minor** level owing to the **Medium-high** sensitivity and the **Negligible** cumulative magnitude of change. Although Dublin Array offshore infrastructure MDO will be readily visible from open and/ or elevated parts of the settlement, the very limited visibility of the other cumulative developments reduces the cumulative interactions.

Alternative Design Options

15.15.386 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figures 3.15.65 (SLVIA Visualisations Appendix) shows that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 17: Dublin Port

Main Assessment

15.15.387 The effect of the Dublin Array offshore infrastructure on the majority of visual receptors in Dublin Port during the construction and operational phases will either be not significant at a Minor level or there will be No effect. This will result from the combination of the Medium-low sensitivity of the visual receptors and the Low or Negligible magnitude of change or No change during both the construction and operational phases.

Cumulative Magnitude of Change

15.15.388 The majority of visual receptors in Dublin Port will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of landform, built form and/or vegetation. In respect of these receptors, there will be **No change**.

15.15.389 The influence on visual receptors at Dublin Port as a result of the cumulative context will be limited. NISA lies to the north-east at a minimum of approximately 38km and will likely be fully screened by the intervening landform and urban development to the north of Dublin Port. CWP lies to the south-east at a minimum of approximately 31km and will be largely screened by the intervening landform and associated urban development that encloses the southern side of Dublin Bay. While the onshore substation for CWP will be located at Dublin Port, it will form an infill development amongst other large scale energy developments and will be associated with the existing urban area rather than the undeveloped seascape, such that its influence on the cumulative context will also be limited. The negligible influence from these cumulative developments means that the cumulative magnitude of change will be **Negligible**, despite visibility of Dublin Array offshore infrastructure MDO occurring from localised parts of Dublin Port at a minimum of 17km to the east.

Cumulative Significance of Effect

15.15.390 There will be **No effect** in respect of visual receptors across the majority of Dublin Port where no visibility will arise. Where visibility occurs, there will be a **not significant** effect at a **Minor** level owing to the **Medium** sensitivity and the **Low** or **Negligible** cumulative magnitude of change. Although Dublin Array offshore infrastructure MDO will be visible from open and parts of Dublin Port, the very limited visibility of the other cumulative developments will reduce the cumulative interactions and the potential for a cumulative effect.

Alternative Design Options

15.15.391 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.77 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 18: Clontarf

Main Assessment

15.15.392 The effect of the Dublin Array offshore infrastructure on the majority of visual receptors in Clontarf during the construction and operational phases will either be not significant at a Moderate or Moderate-minor level or there will be No effect. This will result from the combination of the Medium-high or Medium sensitivity of the visual receptors and the Medium-low magnitude of change or No change where there will be no visibility.

Cumulative Magnitude of Change

15.15.393 The most relevant cumulative development to this assessment is CWP which will be located to the south-east of Dublin Array offshore infrastructure and offset from Clontarf by a minimum of approximately 34km. CWP will comprise 60 WTGs at a height of 314 m in height, with the northern part visible to the left of Dublin Port and the central and southern parts screened by the intervening landform and tree cover. Dublin Array offshore infrastructure will be seen at a minimum of approximately 19km and with all WTGs readily visible. The cumulative ZTV in Figure 3.15.19 (SLVIA GIS Figures Appendix) shows that theoretical inter-visibility of Dublin Array offshore infrastructure and CWP will cover Clontarf, while the extent of built form means that actual visibility will be largely contained along the coastal edge.

15.15.394 The majority of visual receptors in Clontarf will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of built form and/ or vegetation. In respect of these receptors, there will be **No change**.

15.15.395 In localised parts of the settlement where open and / or elevated views extend seawards allowing residents, walkers and/ or road-users visibility of the cumulative context, then there is the potential that a **Low** cumulative magnitude of change will arise during both the construction and operational phases. Dublin Array offshore infrastructure MDO will form a notable extension to the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be seen located within the south-eastern sector of the view and occupying a substantial proportion of the visible seascape. The cumulative magnitude of change will, however, be moderated by the relatively limited influence of CWP, which will be seen at a greater range and occupying a much more contained extent of the seascape view. The closer range and greater extent of Dublin Array offshore infrastructure means that it will be the more prominent of the two developments and will appear at variance with the more distant CWP in terms of vertical scale and horizontal extent.

Cumulative Significance of Effect

15.15.396 There will be **No effect** in respect of visual receptors across the majority of Clontarf owing to there being no visibility because of the screening effect of built form and vegetation. Where visual receptors experience more open views from the coastal edge out towards the sea, the effect will be not significant at a **Moderate-minor** or **Minor** level as a result of the **Medium-high** or **Medium** sensitivity and the **Low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.397 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and comparative wireline in Figure 3.15.66 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 19: Raheny / Kilbarrack / Sutton

Main Assessment

15.15.398 The effect of the Dublin Array offshore infrastructure on the majority of visual receptors in the settlements of Raheny, Kilbarrack and Sutton during the construction and operational phases will be not significant at a Moderate-minor level or there will be No effect. This will result from the combination of the Medium-high or Medium sensitivity of the visual receptors and the Low magnitude of change or No change during both the construction and operational phases. There will be a localised medium-high magnitude of change and significant effects at a Moderate level where visual receptors experience open seaward views towards the Dublin Array offshore infrastructure.

Cumulative Magnitude of Change

15.15.399 The most relevant cumulative development to this assessment is CWP, which will be located to the south-east of Dublin Array offshore infrastructure MDO and offset from the viewpoint by a minimum of approximately 33km. CWP will comprise 60 WTGs at a height of 314 m in height, which will be seen set behind the western extent of Bull Island and to the right of Howth Head. Dublin Array offshore infrastructure MDO will be seen at a minimum of approximately 16km albeit with the northern part screened by the intervening landform of Howth Head and the lower parts of the WTGs screened by the intervening landform of Bull Island. Arklow Bank Phase 2 will be located a minimum of approximately 54km from the viewpoint and will comprise 47 WTGs at a height of 287 m in height. While on a clear day it may be visible as blade tips above North Bull Island, its distance and very limited visibility mean that it will not have a bearing on the cumulative assessment from this viewpoint.

15.15.400 The majority of visual receptors in Raheny, Kilbarrack and Sutton will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of landform, built form and/ or vegetation. In respect of these receptors, there will be **No change**.

15.15.401 In localised parts of the settlements where open and / or elevated views extend seawards allowing residents, walkers and/ or road-users visibility of the cumulative context, then there is the potential that a **Low** cumulative magnitude of change will arise during both the construction and operational phases. Dublin Array offshore infrastructure will be located to the fore of CWP such that there will be no increase in the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be more prominent and larger in scale owing to their location at a closer range compared to those of CWP. While the addition of Dublin Array offshore infrastructure MDO will add to the concentration of WTGs in this sector, the cumulative magnitude of change will be moderated by the extent of overlap, and the limited influence from CWP owing to its more distant location. The offshore wind farms will not be seen in the open seascape but behind and adjacent to coastal landforms and this further reduces the effect as they will be associated with the developed land and not the undeveloped seascape.

Cumulative Significance of Effect

15.15.402 There will be **No effect** in respect of the majority of visual receptors in Raheny, Kilbarrack and Sutton owing to the screening effect of built form and/ or vegetation. Where visibility occurs along the coastal edge and from more open and elevated parts of the settlements, there will be a not significant effect at a **Moderate-minor** level owing to the **Medium-high** sensitivity and the **Low** cumulative magnitude of change. The effect will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.403 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and the comparative wireline in Figure 3.15.68 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

PVR 20: Howth Head

Main Assessment

15.15.404 The effect of the Dublin Array offshore infrastructure on the majority of visual receptors in Howth Head during the construction and operational phases will be not significant at a Moderate-minor level or there will be No effect where there is no visibility. This will result from the combination of the Medium-high or Medium sensitivity of the visual receptors and the Low magnitude of change, or No change where there will be no visibility. There will be localised significant effects at a Major-moderate level where there are more elevated and/ or exposed locations with open seaward views towards the Dublin Array offshore infrastructure and where a Medium-high magnitude of change will arise.

Cumulative Magnitude of Change

15.15.405 The most relevant cumulative developments to this assessment are CWP and NISA, with CWP located a minimum of approximately 30km to the south of Howth Head and south-east of Dublin Array offshore infrastructure and NISA located a minimum of approximately 30km to the north of Howth Head. CWP will comprise 60 WTGs at a height of 314 m in height and NISA will comprise 35 WTGs at a height of 315 m. Dublin Array offshore infrastructure MDO will comprise 39 WTGs at a height of 309.6 m and will be seen at a minimum of approximately 11km from the settlement.

15.15.406 The majority of visual receptors in Howth Head will not be affected by the cumulative developments as there will be no visibility owing to the enclosure of landform, built form and/ or vegetation. In respect of these receptors, there will be **No change**. Where limited extents of visibility occur between or over buildings and/ or vegetation, there is the potential that the addition of Dublin Array offshore infrastructure MDO to CWP will be visible but owing to the limited extents to which either or both offshore wind farms will be visible, the cumulative magnitude of change will be **Low**.

15.15.407 In localised parts of the settlement where open and / or elevated views extend seawards allowing residents, walkers and/ or road-users visibility of the cumulative context, then there is the potential that a **Medium-low** cumulative magnitude of change will arise during both the construction and operational phases. Dublin Array offshore infrastructure will be located to the fore of CWP such that there will be no increase in the horizontal extents of offshore wind farm development established by CWP to the south-east. The Dublin Array WTGs will be more prominent and larger in scale owing to their location at a minimum of approximately 11km compared to the location of CWP at a minimum of approximately 30km. While the addition of Dublin Array offshore infrastructure will add to the concentration of WTGs in this sector, the cumulative magnitude of change will be moderated by the extent of overlap, and the limited influence from CWP owing to its more distant location. The separation of the offshore wind farms from the developed coastlines and association with the open and undeveloped seascape will accentuate the cumulative magnitude of change.

Cumulative Significance of Effect

15.15.408 There will be **No effect** in respect of visual receptors across the majority of the Howth Head. Where limited visibility occurs, there will be a not significant effect at a **Moderate-minor** level owing to the **Medium-high** sensitivity and the **Low** cumulative magnitude of change. Where visual receptors experience more open and/ or elevated views towards the sea, there is the potential for significant effects at a **Moderate** level to arise owing to the **Medium-low** cumulative magnitude of change. The effects will be adverse, short term during the construction phase and long term during the operational phase, and reversible.

Alternative Design Options

15.15.409 The cumulative effect of the ADOs on this PVR during the operational phase will be the same or less than the effect of the MDO, as the ADOs will be located at a similar range and covering a similar extent, albeit with a greater number of smaller turbines. The comparative ZTVs in Figure 3.15.24 and Figure 3.15.25 (SLVIA GIS Figures Appendix) and the comparative wireline in Figure 3.15.69 (SLVIA Visualisations Appendix) show that the ADOs will have the same or a lesser influence on this viewpoint as the MDO. The ADOs will give rise to an effect which will not be of a greater magnitude of change or more significant than the MDO.

15.16 Interaction of environmental factors

15.16.1 A matrix illustrating where interactions between effects on different factors have been addressed is provided in Volume 8, Chapter 1: Interactions of the Environmental Factors (hereafter referred to as the Interactions Chapter) of the EIAR.

15.16.2 Interactions of the environmental factors are considered to be the effects and associated effects of different aspects of the proposal on the same receptor. These are considered to be:

- Project lifetime effects: Assessment of the scope for effects that occur throughout more than one phase of the project (construction, O&M and decommissioning) to interact and potentially create a more significant effect on a receptor than if just assessed in isolation in these three key project phases; and
- Receptor led effects: Assessment of the scope for all effects to interact, spatially and temporally, to create inter-related effects on a receptor. As an example, all effects on benthic ecology such as direct habitat loss or disturbance, sediment plumes, scour, jack up vessel use etc., may interact to produce a different, or greater effect on this receptor than when the effects are considered in isolation. Receptor-led effects might be short-term, temporary or transient effects.

15.16.3 As indicated in the Interactions Chapter there are linkages between the topic-specific chapters presented within this EIAR, whereby the effects assessed in one chapter have the potential to result in secondary effects on another receptor.

15.16.4 The potential effects on seascape, landscape and visual receptors during construction, operational and maintenance, and decommissioning phases of the Project have been assessed in sections 15.12 – 15.14 above.

15.16.5 Effects on seascape, landscape and visual receptors also have the potential to have secondary effects on other receptors which have been fully assessed in the topic-specific chapters. These receptors are:

- ▲ Chapter 14: Cultural Heritage Settings Assessment (Terrestrial Archaeology and Monuments). The addition of the Dublin Array offshore infrastructure has potential to give rise to inter-related effects during construction, operation and/ or decommissioning on the perceived character of Dalkey Island, and views from Killiney Hill Obelisk and Forty Foot.
- ▲ Chapter 17: Socio-economic, Tourism, Recreation and Land Use. The addition of the Dublin Array offshore infrastructure has potential to give rise to inter-related effects during construction, operation and/ or decommissioning on the perceived character of much of the eastern coastline between Howth in the north and Wicklow in the south and views from the series of tourist attractions associated with this coastline, including Dalkey Island, Forty Foot, Dún Laoghaire East Pier, Greystones Harbour, Bray Promenade, Bray Coastal Walk, Howth Head Coastal Loop.

15.16.6 For seascape, landscape and visual receptors, the following potential impacts have been considered within the interactions assessment:

- ▲ Changes to views experienced by people from specific and representative viewpoints and from visual receptors;
- ▲ Changes to the perceived seascape (coastal) character of coastal character areas;
- ▲ Changes to the perceived landscape character and qualities of designated landscapes; and
- ▲ Changes to night-time views and perceived character of coastal character as a result of the Dublin Array offshore infrastructure lighting.

Project lifetime effects

15.16.7 Project lifetime effects consider impacts from the construction, operation or decommissioning of Dublin Array on the same receptor or group of receptors. The potential inter-related effects that could arise in relation to seascape, landscape and visual receptors are presented in Table 7.

Table 7 Project lifetime effects assessment for potential inter-related effects on seascape, landscape and visual receptors

Impact Type	Effects (Assessment Alone)			Interaction Assessment
	C	O&M	D	Project lifetime effects
Changes to views experienced by people from specific and	✓	✓	✓	No greater than individually assessed impacts. Although impacts are broken down into different receptors (viewpoints and principal visual receptors) the actual receptor is the same in each case i.e., the people

Impact Type	Effects (Assessment Alone)			Interaction Assessment
	C	O&M	D	Project lifetime effects
representative viewpoints and from principal visual receptors (Section 15.6 of the SLVIA Methodology)				perceiving the effect. On balance, these people will only perceive the effect one way (visually) at one point in time, and will not experience the construction, operation and decommissioning phases simultaneously, or across multiple pathways.
Changes to the perceived seascape (coastal) character of coastal character areas	✓	✓	✓	No greater than individually assessed impacts. Although impacts are broken down into different receptors based upon physical and perceived characteristics (coastal character areas) the actual receptor is the same in each case i.e., the people perceiving the effect on coastal character. On balance, these people will only perceive the effect one way (visually) at one point in time, and will not experience the construction, operation and decommissioning phases simultaneously, or across multiple pathways.
Changes to the perceived landscape character and qualities of designated landscapes	✓	✓	✓	No greater than individually assessed impacts. Although impacts are broken down into different receptors based upon physical and perceived characteristics (landscape character types) and planning policies (landscape designations) the actual receptor is the same in each case i.e., the people perceiving the effect on landscape character. On balance, these people will only perceive the effect one way (visually) at one point in time, and will not experience the construction, operation and decommissioning phases simultaneously, or across multiple pathways.
Changes to night-time views and perceived character of coastal areas as a result of the Dublin	✗	✓	✗	No greater than individually assessed impacts. Although impacts are broken down into different receptors (viewpoints and visual receptors) the actual receptor is the same in each case i.e., the people perceiving the effect. On balance, these people will only perceive the effect one way (visually) at

Impact Type	Effects (Assessment Alone)			Interaction Assessment
	C	O&M	D	Project lifetime effects
Array offshore infrastructure lighting				one point in time, and will not experience the construction, operation and decommissioning phases simultaneously, or across multiple pathways.

Receptor led effects

15.16.1 Receptor led effects (i.e. those that interact, spatially and temporally, to create inter-related effects on a receptor) will not occur on seascape, landscape and visual receptors, since changes are experienced by the same receptor in each case (people) and in one way (visually) at one point in time, therefore effects on views and on perceived character are inter-linked, and do not interact to produce a different, or greater effect, on a receptor than when effects are considered in isolation.

15.17 Whole-project assessment

Scope of the whole project assessment

15.17.1 The inter-relationship between the SLVIA impacts of the Dublin Array offshore infrastructure and the LVIA impacts of the onshore elements of Dublin Array occurs where landscape and visual receptors may be materially impacted through visibility of both parts of the project.

15.17.2 Volume 5, Chapter 7: Landscape and Visual Impact Assessment (hereafter referred to as the LVIA Chapter) concludes that there will be no significant effects on landscape character or visual amenity as a result of the Dublin Array Onshore Infrastructure. This is largely due to the relatively small scale and contained extent of the onshore infrastructure as well as the location of these elements in areas that are already influenced by urban development.

15.17.3 The Dublin Array onshore infrastructure comprises the following four main components;

- ▲ Landfall – to be located at Shanganagh Waste Water Treatment Plant - during construction occupying a 1 ha temporary compound and during operation being buried underground with only inspection chambers on the surface;
- ▲ Onshore cable corridor – to connect the Landfall with the Onshore Substation with the use of trenchless techniques such that the only above ground features will be the temporary construction compounds;
- ▲ Onshore Substation – to be located at Carrickmines and comprising a 2.3 ha development site and 2 ha temporary construction compound; and
- ▲ Operations and Maintenance base – to be located on St. Michael’s Pier at Dún Laoghaire and comprises a building ~86.1 m in length, 12.5 m in width and 12.3 m in height.

- 15.17.4 While the effects of the Dublin Array Onshore Infrastructure will be localised, in contrast, the effects of the Dublin Array offshore infrastructure are more widespread, with significant landscape effects extending along the coast and across parts of the coastal hills out to approximately 18km and with significant visual effects occurring out to approximately 21km. The areas where there is a potential inter-relationship between the onshore and offshore effects occurs only where they coincide to affect the same receptors.
- 15.17.5 The potential for whole project effects to occur will be limited to the local area around the landfall locations at Shanganagh, the local area around the Onshore Cable Corridor (OCC) location at Carrickmines, and the local area around the O&M base at Dún Laoghaire. No whole project effects will arise in relation to the onshore cable corridor owing to the use of trenchless techniques which will mean no disturbance to the ground, although there will be localised effects relating to temporary compounds.
- 15.17.6 The localised nature of the effects combined with the location of the Dublin Array Onshore Infrastructure in predominantly urban areas will mean that there will be no significant whole project effects on landscape character. This assessment, therefore, focuses on the whole project effects on visual amenity, with reference to SLVIA viewpoints and PVRs where relevant.

Assessment of landfall whole project effects

Landfall description

- 15.17.7 The Transition Joint Bay (TJB) temporary construction compound at the landfall will be located at Shanganagh Waste Water Treatment Plant. An area of approximately 9,500 m² will be securely fenced off at the start of the construction phase around the proposed location of the TJBs, to form the Landfall Site Temporary Construction Compound (TCC), which will include laydown areas and a vehicular access track. An additional area of approximately 6,500 m² to the east between the existing WWTP and the existing fence line along the cliffs will be temporarily fenced off from public access to facilitate cable duct laydown and assembly during the trenchless crossing activities. The Landfall Site TCC will be enclosed by a 3.5 m high perimeter acoustic barrier (hoarding) and will accommodate work areas, loading/unloading zones, construction material storage, site vehicle parking, and welfare facilities.
- 15.17.8 During construction, plant including excavators and drilling rigs will be used on site and works will facilitate the marine drilling punch out and the landfall construction. There will be no tall structures constructed on this site, as the TJB will be buried. The TJB temporary construction compound will be in place for approximately 18 months. Following completion of construction, there will be no visible sub-surface features other than inspection chambers on the surface.

Visibility

15.17.9 Shanganagh occupies a coastal location with a narrow beach following the north to south alignment of the coastline. The Shanganagh Waste Water Treatment Plant is located in the northern part of this area, where urban development extends close to the coast leaving a narrow band of open space and views that are drawn out across the Irish Sea.

Scope of the assessment

15.17.10 This assessment considers the whole project effects during only the construction phase, as the effects of the landfall during the operational phase will be very limited. The construction of the landfall in conjunction with the construction of the Dublin Array offshore infrastructure has the potential to give rise to significant whole project effects on the views of residents, road-users and walkers around the Shanganagh Waste Water Treatment Plant.

Baseline character and sensitivity

15.17.11 Visual receptors at Shanganagh are represented by Viewpoint 9 Shankill Beach, PVR 10 Shanganagh and PVR 11 Shankill / Ballybrack. and cover the coastline and adjoining urban developments in this coastal area. The baseline descriptions and assessment of sensitivity of this viewpoint and PVRs to the Dublin Array offshore infrastructure are presented in section 15.7. The sensitivity of residents, walkers and other recreational users is assessed as medium-high while the sensitivity of road-users is assessed as medium.

15.17.12 Development at Shanganagh is typically small in scale and dispersed within a landscape setting, with the exception being the DART line which cuts a north-south route through the middle of this area.

15.17.13 Shankill is a relatively modern residential area comprising detached and semi-detached properties, occupies the coastal edge, albeit recessed from the low cliffs with typically an area of grassed open space forming the separation. The properties on the eastern edge mostly face seawards, while the openness of the coastal edge means that the views of residents, walkers and road-users are all fairly expansive.

Potential impacts during construction

15.17.14 The main assessment of the Dublin Array offshore infrastructure is presented in section 15.12. During the construction phase, the magnitude of change of the Dublin Array offshore infrastructure on visual receptors on the Shankill coast, is assessed as High, Medium-high or Medium and on the Shanganagh coast as medium-high. When combined with the Medium-High or Medium sensitivity of these receptors, this results in significant effects at a Major, Major-moderate or Moderate level on the Shankill coast, and Major-moderate on the Shanganagh coast, with all effects being adverse, short-term and reversible. Where visibility will be restricted there will be a Low magnitude of change and a not significant effect at a Moderate-minor level and where there will be no visibility behind the coastal edge, there will be No effect.

15.17.15 The construction compound associated with the TJB at Shanganagh Waste Water Treatment Plant and the construction of the Dublin Array offshore infrastructure will be inter-visible from the localised area around the proposed TJB. Views of the proposed site of the TJB from further afield will likely be screened by the wastewater treatment plant to the north, residential properties to the west, a line of trees to the south and the Shanganagh Cliffs to the east. The TJB construction compound will be seen in the context of the existing Shanganagh Waste Water Treatment Plant, which has an industrial character and is larger in scale than the proposed TJB construction compound. The perceived scale of the TJB construction compound in the available views will therefore be small and the contrast with its surroundings limited, resulting in a **Low** magnitude of change.

15.17.16 This Low magnitude of change due to the TJB construction compound, is not considered to noticeably increase the whole project magnitude of change, when added to the assessed High, Medium-High or Medium magnitude of change assessed in respect of the Dublin Array offshore infrastructure. Therefore, the resulting whole project level of effect remains at a significant Major, Major-moderate or Moderate level, with effects being adverse, short-term and reversible.

Assessment of Onshore Substation whole project effects

Onshore Substation description

15.17.17 The proposed development will include the construction of a new Onshore Substation (OSS) in the townland of Jamestown, Ballyogan. The new OSS will be located 500 m west of the existing Carrickmines 220 kV substation, the Grid Connection Point (GCP). The proposed OSS site will occupy 2 ha outside of the former landfilling area, with 1.7 ha retained for the OSS footprint and the remaining area used for enabling works, temporary storage, and laydown areas during the construction phase. The OSS will comprise a fully enclosed compound with a finished footprint of 1.7 ha and a 4 m high perimeter wall with stone cut cladding.

15.17.18 The OSS compound will consist of three, purpose-built buildings, which comprise of a building housing the main 220 kV GIS and two Statcom (Static Synchronous Compensator) buildings. The GIS building will house the central control systems, automation systems, telecommunications systems, and monitoring equipment. The two Statcom buildings will contain converter, protection and control equipment associated with the Statcoms. The largest building proposed is the 220 kV GIS building. It will house the electrical HV switching plant and have a max height of 15 m over 2 storeys. The proposed final OSS will include the provision of landscaping, internal hardstanding, access roads, with six car parking spaces, lighting, lightning monopole masts (18 m high), two entrance gates and a perimeter wall (4 m high), and other associated ancillary works

Visibility

15.17.19 The ZTV in Figure 3.15.9b (SLVIA GIS Figures Appendix) shows that theoretical visibility of the Dublin Array offshore infrastructure will be patchy in the localised area around the Onshore Substation with theoretical visibility shown to occur to the east but not the west. Site work has shown that actual visibility will be very limited owing to the urban location of this site, with existing buildings and tree cover screening views towards the sea but also reducing the extents to which the Onshore Substation will be visible. The relatively low lying location of the Onshore Substation will reduce the potential for inter-visibility apart from more elevated and open areas in the surrounding environs. These occur across the north-eastern edge of the Dublin Mountains and across Killiney Hill, although from the latter, the separation distance combined with the urban context will limit the whole project effect.

15.17.20 Roadside vegetation, high ditches, walls or fencing restrict the views from many locations along the roads on the north eastern slopes of the Dublin Mountains. There are however intermittent locations along these roads, where views uphill towards Three Rock Mountain or downhill over south east Dublin, towards Killiney Hill and in some places over Dublin Bay open up, for example

- ▲ intermittent uphill and downhill views along Ballyedmonduff Road;
- ▲ intermittent downhill views along Burrow Road; and
- ▲ intermittent uphill views along the R117 – Enniskerry Road.

15.17.21 While these intermittent views are publicly accessible, since they are located along public roads, there are no formal viewing points along these roads. In addition to the intermittent publicly available views, many of the residential properties along these roads enjoy similar panoramic views uphill and/ or downhill.

15.17.22 There are many public footpaths leading up to and across the upland area surrounding Three Rock Mountain, including the Dublin Mountains Way long distance walking route which, extends from Shankhill in South Dublin to Tallaght in West Dublin. While some sections of these footpaths pass through conifer plantations, there are many locations where panoramic views over Dublin Bay and towards the Wicklow Mountains are available. The Carrickmines Retail Park and the former Ballyogan Landfill site, which adjoin the site for the proposed Onshore Substation can be identified in most of the available views from uphill locations. These elements typically occupy a small portion of the wide panoramic views only.

Scope of the assessment

15.17.23 The Onshore Substation in conjunction with the Dublin Array offshore infrastructure has the potential to give rise to significant whole project effects on the views of residents, road-users and walkers across the north-eastern edge of the Dublin Mountains.

Baseline character and sensitivity

15.17.24 Visual receptors across the north eastern edge of the Dublin Mountains are represented by Viewpoint 25 Ballyedmonduff and include residents and road users in this local area. The baseline descriptions and assessment of sensitivity of this viewpoint to the Dublin Array offshore infrastructure are presented in section 15.7. Viewpoint 25 is located on a rural section of road between the villages of Ballyedmonduff to the north and Glencullen to the south and is representative of residents in the area, whose sensitivity is assessed as medium-high and representative of road-users whose sensitivity is assessed as medium. The sensitivity of walkers in this area will also be medium-high.

Potential impacts during construction

15.17.25 The main assessment of the Dublin Array offshore infrastructure is presented in section 15.12. During the construction phase, the magnitude of change of the Dublin Array offshore infrastructure on visual receptors along Ballyedmonduff Road, which includes residents and road users and also represents walkers on the north eastern edge of the Dublin Mountains, will be Medium. When combined with the Medium-High or Medium sensitivity of these receptors, this results in significant effects at a Moderate level, which will be adverse, short-term and reversible.

15.17.26 The construction works associated with the emerging Onshore Substation and the construction of the Dublin Array offshore infrastructure will be visible in the same or different sectors from several viewpoints along Ballyedmonduff Road, including from private properties and public walking routes on the north eastern slopes of the Dublin Mountains. Views of the construction works, including the use of cranes and the emerging Onshore Substation will occur at a minimum distance of 1.5km and it will be seen in the context of the existing industrial and commercial developments in the Ballyogan area, which has seen a great level of construction works in recent years, including the presence of multiple cranes in the available views. Furthermore, the OCC will be partially screened by the domed landform of the former Ballyogan landfill site, as well as intervening vegetation, resulting in a limited change in the available views and therefore a **Low** magnitude of change.

15.17.27 This Low magnitude of change due to the Onshore Substation, is not considered to noticeably increase the whole project magnitude of change, when added to the assessed Medium magnitude of change attributed to the Dublin Array offshore infrastructure. Therefore, the resulting whole project level of effect remains significant at a Moderate level, with effects being adverse, short-term and reversible.

Potential impacts during operation

- 15.17.28 The main assessment of the Dublin Array offshore infrastructure is presented in section 15.13. During the operational phase, the magnitude of change of the Dublin Array offshore infrastructure on visual receptors along Ballyedmonduff Road, which includes residents and road users and also represents walkers on the north eastern edge of the Dublin Mountains, will be Medium. When combined with the Medium-High or Medium sensitivity of these receptors, this results in significant effects at a Moderate level, which will be adverse, long-term and reversible.
- 15.17.29 The completed Onshore Substation and the Dublin Array offshore infrastructure will be visible from several viewpoints along Ballyedmonduff Road, including from private properties and public walking routes on the north eastern slopes of the Dublin Mountains. The effect of the completed Onshore Substation will be moderated by its location adjacent to existing industrial and commercial developments in the Ballyogan area and the partial screening that will occur owing to the domed landform of the former Ballyogan landfill site, as well as intervening vegetation in many views. At 1.5km, the Onshore Substation will be visible, but will appear as a medium scale development commensurate with the scale of the adjacent buildings. The magnitude of change will be **Low**.
- 15.17.30 This Low magnitude of change due to the Onshore Substation, is not considered to noticeably increase the whole project magnitude of change, when added to the assessed Medium magnitude of change due to the Dublin Array offshore infrastructure. Therefore, the resulting whole project level of effect remains significant at a Moderate level, with effects being adverse, long-term and reversible.

15.18 Transboundary statement

- 15.18.1 A screening of transboundary impacts has been carried out and has identified that there was no potential for significant transboundary effects with regard to seascape, landscape and visual receptors from the Dublin Array offshore infrastructure upon the interests of other states.
- 15.18.2 The Dublin Array offshore infrastructure is located a minimum of approximately 82km from the coastline of the United Kingdom, which is the nearest state. The Gwynedd coast in Wales, is the closest part of the UK mainland to the Dublin Array offshore infrastructure. The ZTV in Figure 3.14.9a (SLVIA GIS Figures Appendix) shows that there is no theoretical visibility of the Dublin Array offshore infrastructure from seascape beyond approximately 60 to 70km due to the effects of earth curvature, which would effectively 'hide' the WTGs behind the horizon at this distance. This means that there are no likely significant effects predicted from the UK.

15.19 Summary of effects

- 15.19.1 The potential effects on the seascape, landscape and visual receptors that would arise as a result of the Dublin Array offshore infrastructure have been assessed in this chapter. The process taken involved identifying those receptors with the potential to be significantly affected and assessing the potential effects that the construction and operation of the Dublin Array offshore infrastructure would give rise to. The significance of these effects has been assessed through combining the sensitivity of each receptor with a prediction of the magnitude of change that would occur as a result of the Dublin Array offshore infrastructure. The findings of the assessment are presented in summary in Table 8 below.
- 15.19.2 The Dublin Array offshore infrastructure will be located in the vicinity of the Kish and Bray Banks. The Kish and Bray Banks are located, approximately 9km off the east coast of County Dublin and County Wicklow, immediately south-east of Dublin City and off the coast of counties Dublin and Wicklow. The location of the proposed array area is shown in Figure 3.14.1 (SLVIA GIS Figures Appendix). The Dublin Array offshore infrastructure will be located within an area of approximately 59km², in water depths ranging from 15 m to 40 m lowest astronomical tide (LAT).
- 15.19.3 There three options assessed for the Dublin Array offshore infrastructure comprise 39 WTGs at a height of 309.6 m (LAT) to blade tip; 45 WTGs at a height of 281.6 m (LAT) to blade tip; or 50 WTGs at a height of 267.6 m (LAT) to blade tip. These will be located within the 59km² array area. The offshore infrastructure will also include the OSP and two Floating LiDAR. For the purposes of this SLVIA, the MDO has been taken as the 39 WTGs at a height of 309.6 m (LAT) as these are taller than the 281.6 m WTGs and 267.6 m WTGs. Although 39 WTGs are fewer than 45 or 50 WTGs, these 39 taller WTGs will be spread across the same extent of the array area as the 45 or 50 WTGs would be, and will therefore, occupy a similar horizontal extent.
- 15.19.4 A comparative assessment of the ADOs is included for all receptors assessed in Sections 15.12, 15.13 and 15.14 and an overall comparative assessment is presented at section 15.10.20 to 15.10.25. The finding of the comparative assessment is that the ADOs will not give rise to any greater magnitude of change or significance of effect than the MDO.
- 15.19.5 The Study Area for the Dublin Array offshore infrastructure covers a radius of 50km and within this area, those receptors with the potential to be significantly affected have been assessed in detail. This has included two Regional Seascape Character Areas (RSCAs), eight Landscape Character Areas (LCAs), five designated landscape areas, 26 viewpoints and 20 principal visual receptors. Photomontages have been prepared for the viewpoints, with the exception of Viewpoint 19 at Portrane, Viewpoint 20 at Rush, Viewpoint 21 on the Dublin to Holyhead Ferry and Viewpoint 23 on Tonegalee. The figures also include a wireline of the offshore infrastructure on its own and a wireline with all other cumulative developments. These visualisations have helped assist in the assessment process. Figures 3.14.1 to 3.14.25 (SLVIA GIS Figures Appendix) show plans of the study area, seascape receptors, landscape receptors, visual receptors and ZTVs of the offshore infrastructure on its own, in combination with other cumulative offshore wind farms, and to illustrate the extents and levels of night-time lighting. Figures 3.14.26 to 3.14.51 (SLVIA Visualisation Figures) show the photographs, wirelines and photomontages from the representative viewpoints.

15.19.6 The assessment of effects on seascape character found that significant effects will arise within the two RSCAs assessed, during the construction and operational phases. RSCA 14: Irish Sea Sandbanks and Broad Bays will be significantly affected as a whole. In respect of RSCA 15: Dublin Bay, while the ZTV in Figure 3.14.12a (SLVIA GIS Figures Appendix) shows that theoretical visibility will occur all the way round the bay, the effect in the sections around Dublin Port and Clontarf will be not significant owing to the closer range influence of existing large-scale developments in this area but will occur in the sections between Killiney and Dublin Port and between Clontarf and Howth Head. The significant effects will extend out to a radius of 18km from the Dublin Array offshore infrastructure.

15.19.7 In respect of landscape character, the assessment found that significant effects will arise during the construction and operational phase in parts of the following six of the eight LCAs assessed.

- ▲ Wicklow Coastal Area LCA – northern part;
- ▲ Wicklow: Corridor Area East LCA – localised east facing slopes;
- ▲ Wicklow: The Northern Hills LCA - east facing slopes of the coastal hills to the north, west and south of Delgany, and the rising landform to the west of Kilcoole and south-west of Kilpedder;
- ▲ Wicklow: Glencree / Glencullen LCA – localised east facing slopes of the hills;
- ▲ Dún Laoghaire: Shanganagh LCA – along coastal edge extending inland where open and/or elevated areas occur; and
- ▲ Fingal: Coastal Howth Head LCA – southern and eastern parts.

15.19.8 These significant effects will extend out to a radius of approximately 12km to the west, 15km to the north-west, and 18km to the south-east, and will relate principally to the close association between the coastal headlands, hills and bays to the seascape where the Dublin Array offshore infrastructure will be located. The effect of the Dublin Array offshore infrastructure on all other LCAs during the construction and operational phases will be not significant.

15.19.9 The Dublin Array offshore infrastructure would also have a significant effect on the corresponding parts of the following designated landscapes;

- ▲ Wicklow Coast AONB;
- ▲ Wicklow Northern Hills AONB; and
- ▲ Howth Special Amenity Area / High Amenity Zone.

- 15.19.10 In respect of landscape designations, there will be a significant effect on the whole of the Wicklow Coast AONB, and on parts of the Northern Hills AONB and the Howth SAAO / HAZ, chiefly in relation to the proximity of these designated landscapes to the Dublin Array offshore infrastructure, and the strong association between these designated landscapes and the adjacent seascape. The effect on the Wicklow Mountains NP and AONB will be not significant. This finding relates to the greater separation between these designated landscapes and Dublin Array offshore infrastructure, the weaker association between these designated landscapes and the east coast seascape, the stronger association with the surrounding uplands, and the limited visibility across the NP and AONB as a whole. The Wicklow Mountains are principally defined by the intrinsic character of the immediate and surrounding upland landscapes, albeit with the east coast seascape presenting an important aspect of the wider context.
- 15.19.11 In respect of viewpoints and visual receptors, there will be a significant effect on 21 of the 26 representative viewpoints, and 16 of the 20 principal visual receptors, although only one of these will be affected wholly with the remaining 15 affected only partly. This finding indicates that visual effects will extend out to approximately 21km from the closest edge of the Dublin Array offshore infrastructure. The majority of the significant effects will arise from the combination of the medium-high or medium sensitivity of walkers, residents and road-users along the coast, with the medium-high or high magnitude of change that will result from the introduction of the Dublin Array offshore infrastructure into a previously undeveloped seascape. The seaward outlook forms the principal view for visual receptors along this east coast and the introduction of the Dublin Array offshore infrastructure will redefine the character of many of the views experienced by residents, road and rail-users, walkers, and other people spending time on this eastern coast.
- 15.19.12 In respect of the principal visual receptors, there will be localised significant effects on passengers on the DART line and Irish Rail east coastline between Merrion and Newcastle, and localised significant effects on road-users on the R761 coastal road where open and elevated sections occurs. Road-users on the N11 would not be significantly affected owing to the limited theoretical visibility shown along this route, the even less extensive actual visibility as a result of extensive road-side tree cover, the speed of traffic and the alignment of views largely in a southerly or northerly direction.
- 15.19.13 In terms of key walking routes, walkers on the Bray to Greystones Cliff Walk will be significantly affected, while walkers on the Howth Head Loop will be affected across those southern and eastern sections where visibility of the offshore infrastructure arises. Walkers on the Wicklow Way will not be significantly affected, despite some open sections being shown on the ZTV to gain visibility. This is due to greater separation distance from the offshore infrastructure and the greater influence from the immediate surrounding hills rather than the more distant seascape.

- 15.19.14 All of the settlements assessed will be significantly affected in part and will typically be significantly affected along the seafront area, where views are open and exposed. In those parts of the settlements behind the seafront area, the effects will typically be not significant, owing to the screening effect of the intervening buildings, albeit with localised exceptions where streets align to frame views of the sea, or more open and elevated areas allow seaward views from behind the seafront.
- 15.19.15 An assessment of the visual effects of the WTG lighting is presented in the Visual Assessment of Turbine Lighting Appendix. This assessment is based on three viewpoints selected to represent the effects of turbine lighting at three points along the coast; namely Viewpoint 4: Greystones Harbour; Viewpoint 11: Vico Road seating area; and Viewpoint 18: Howth Head viewpoint. The assessment found that the effects of the night-time aviation lighting will be significant in respect of all three viewpoints. Despite the typically high levels of baseline lighting that occur along this developed coastline, the introduction of night-time lighting in the typically dark seaward views will give rise to significant effects on visual receptors.
- 15.19.16 The most relevant development to the cumulative assessment is the Phase 1 Codling Wind Park, which is an offshore wind farm comprising a MDO of 60 WTGs at a height of 314 m and located a minimum of 2.9km from the Dublin Array offshore infrastructure. While there may also be an influence from the Phase 1 cumulative developments; Arklow Bank Phase 2 and NISA, these influences will be moderated by their greater distance from the Dublin Array offshore infrastructure. Significant cumulative effects will arise across RSCA 14: Irish Sea Sand Banks and Broad Bays, part of RSCA 15: Dublin Bay and across parts of four of the eight LCAs and two of the five landscape designations assessed. Of the 26 viewpoints assessed, 13 will undergo significant cumulative effects and of the 20 PVRs assessed, 12 will undergo significant cumulative effects in part, with cumulative visual effects extending out to 21km.
- 15.19.17 The whole project assessment, presented at section 15.17, considers the combined effect of the Dublin Array offshore infrastructure with the Dublin Array Onshore Infrastructure. Effects on seascape and landscape receptors will be limited owing to the relatively small scale and contained extents of the Dublin Array Onshore Infrastructure and these receptors are, therefore, not considered in the whole project assessment. The assessment of whole project effects considers visual receptors who will experience inter-visibility of the Dublin Array offshore infrastructure with either the landfall or the OCC. This has found that effects will be not significant.
- 15.19.18 Table 8 below, sets out a summary of the detailed assessment of each landscape and visual receptor during the construction and operational phases and the cumulative effect in respect of the other Phase 1 offshore wind farms. The detailed assessment presents variables in the ratings applied to sensitivity, magnitude of change and significance of effect for a number of the receptors, especially the wider range receptors such as the LCAs, landscape designations and PVRs. In order to understand the geographical extents of these variable ratings, reference to the detailed assessments in sections 15.12, 15.13 and 15.15 is required.

- 15.19.19 In summary, the Dublin Array offshore infrastructure will give rise to significant effects and significant cumulative effects on landscape character during the construction and operational phases, albeit contained within the localised extent of approximately 18km and would give rise to significant effects on visual amenity out to approximately 21km. While landscape and visual receptors beyond these ranges may be affected by the influence of the Dublin Array offshore infrastructure, these effects will be not significant. Furthermore, not all landscape and visual receptors within these ranges will be significantly affected, for example tracts of landscape enclosed by forest cover or where screening by buildings occurs.
- 15.19.20 All effects during the construction phase of the Dublin Array offshore infrastructure will be short-term and reversible and all effects during the operational phase will be long-term and reversible. All effects will be adverse in nature.
- 15.19.21 Significant effects on landscape and visual receptors would be expected to arise as a result of the development of a large-scale offshore wind farm, such as Dublin Array. Moreover, the findings of this SLVIA, in terms of the occurrence and extent of significant effects, are consistent with the findings of SLVIAs for other similar large-scale offshore wind farms in Ireland and the UK.
- 15.19.22 While this is the technical conclusion, reached through the lens of the EIA Directive, there may be a number of reasons why the proposed development should be granted planning permission, notwithstanding these conclusions, and why the proposed development is in accordance with proper planning and sustainable development. Further information on this is set out within Part 1B Planning Report.

Table 8 Summary of Effects

Receptor	Sensitivity	Construction Magnitude of change	Construction Significance of effect	Operation Magnitude of change	Operation Significance of effect	Cumulative Tier Magnitude of change	Cumulative Magnitude of change
RSCA14. Irish Sea, Sandbanks and Broad Bays	Medium-high	Medium-high / Medium	Major-moderate / Moderate (Significant)	Medium-high / Medium	Major-moderate / Moderate (Significant)	Medium-high	Major-moderate (Significant)
RSCA16. Dublin Bay	Medium-high / Medium	Medium-high / Medium Medium-low No change	Major-moderate / Moderate (Significant) Moderate-minor (Not significant) No effect	Medium-high / Medium Medium-low No change	Major-moderate / Moderate (Significant) Moderate-minor (Not significant) No effect	Medium Low No change	Moderate (Significant) Moderate-minor / Minor (Not significant) No effect
Wicklow: Coastal Area LCA	Medium-high	Medium-high / Medium / Medium-low Low / No change	Major-moderate / Moderate (Significant) Moderate-minor (Not significant) No effect	Medium-high / Medium / Medium-low Low / No change	Major-moderate / Moderate (Significant) Moderate-minor (Not significant) No effect	Medium-high / Medium / Medium-low No change	Major-moderate / Moderate (Significant) Moderate-minor (Not significant) No effect
Wicklow: Corridor Area East LCA	Medium	Medium Medium-low / Low No change	Moderate (Significant) Moderate-minor (Not significant) No effect	Medium Medium-low / Low No change	Moderate (Significant) Moderate-minor (Not significant) No effect	Medium Medium-low / Low No change	Moderate (Significant) Moderate-minor or Minor (Not significant) No effect
Wicklow: The Northern Hills LCA	Medium-high	Medium-high / Medium No change	Major-moderate / Moderate (Significant) No effect	Medium-high / Medium No change	Major-moderate / Moderate (Significant) No effect	Medium-high / Medium No change	Major-moderate or Moderate (Significant) No effect
Wicklow: Glencree / Glencullen LCA	Medium-high	Medium-low Low / No change	Moderate (Significant) Moderate-minor (Not significant) No effect	Medium-low Low / No change	Moderate (Significant) Moderate-minor (Not significant) No effect	Medium-low / Low No change	Moderate (Not significant) No effect
Wicklow: North East Mountain Lowlands LCA	Medium-high	Medium-low / Low No change	Moderate / Moderate-minor (Not significant) No effect	Medium-low / Low No change	Moderate / Moderate-minor (Not significant) No effect	Medium-low / Low No change	Moderate / Moderate-minor (Not significant) No effect
Wicklow: Mountain Uplands LCA	Medium-high	Medium-low / Low No change	Moderate / Moderate-minor (Not significant) No effect	Medium-low / Low No change	Moderate / Moderate-minor (Not significant) No effect	Low No change	Moderate-minor (Not significant) No effect
Dún Laoghaire: Shanganagh LCA	Medium-high	Medium-high / Medium No change	Major-moderate / Moderate (Significant) No effect	Medium-high / Medium No change	Major-moderate / Moderate (Significant) No effect	Medium-low Low No change	Moderate (Significant) No effect
Fingal: Coastal Howth Head LCA	Medium-high	Medium-high No change	Major-moderate (Significant) No effect	Medium-high No change	Major-moderate (Significant) No effect	Low No change	Moderate-minor (Not significant) No effect

Receptor	Sensitivity	Construction Magnitude of change	Construction Significance of effect	Operation Magnitude of change	Operation Significance of effect	Cumulative Tier Magnitude of change	Cumulative Magnitude of change
Wicklow Mountains National Park	Medium-high	Medium-low / Low No change	Moderate / Moderate-minor (Not significant) No effect	Medium-low / Low No change	Moderate / Moderate-minor (Not significant) No effect	Low No change	Moderate-minor (Not significant) No effect
Wicklow Mountains and Lakeshore AONB	Medium-high	Medium-low / Low No change	Moderate / Moderate-minor (Not significant) No effect	Medium-low / Low No change	Moderate / Moderate-minor (Not significant) No effect	Low No change	Moderate-minor (Not significant) No effect
Wicklow Coast AONB	Medium-high	Medium-high / Medium Medium-low No change	Major-moderate / Moderate (Significant) No effect	Medium-high / Medium Medium-low No change	Major-moderate / Moderate (Significant) No effect	Medium-high / Medium / Medium-low No change	Major-moderate / Moderate (Significant) No effect
Wicklow Northern Hills AONB	Medium-high	Medium-high / Medium No change	Major-moderate / Moderate (Significant) No effect	Medium-high / Medium No change	Major-moderate (Significant) No effect	Medium-high / Medium No change	Major-moderate or Moderate (Significant) No effect
Howth Special Amenity Area / High Amenity Zone	Medium-high	Medium-high No change	Major-moderate (Significant) No effect	Medium-high No change	Major-moderate (Significant) No effect	Low No change	Moderate-minor (Not significant) No effect
VP1: Scenic Car Park, Wicklow Town	High	Medium	Major-moderate (Significant)	Medium	Major-moderate (Significant)	Medium	Major-moderate (Significant)
VP2: Six Mile Point, Newcastle	Walkers - Medium-high	Medium-high	Major-moderate (Significant)	Medium-high	Major-moderate (Significant)	Medium-high	Major-moderate (Significant)
VP3: N11 road near Kilmullin	Road-users - Medium	Medium	Moderate (Significant)	Medium	Moderate (Significant)	Medium-low	Moderate (Not significant)
VP4: Greystones Harbour	Residents, walkers and road-users - Medium-high	High	Major (Significant)	High	Major (Significant)	Medium-high	Major-moderate (Significant)
VP5: Sugar Loaf Mountain	Walkers - High	Medium	Major-moderate (Significant)	Medium	Major-moderate (Significant)	Medium-high	Major- (Significant)
VP6: Bray Head walkway	Walkers - High	High	Major (Significant)	High	Major (Significant)	Medium-low	Moderate (Significant)
VP7: Bray Promenade	Residents, walkers and road-users - Medium-high	High	Major (Significant)	High	Major (Significant)	Medium-low	Moderate (Significant)
VP8: Hill at Carrick Gollogan, near Shankill	Walkers - Medium-high	Medium	Moderate (Significant)	Medium	Moderate (Significant)	Low	Moderate-minor (Not significant)
VP9: Shankill Beach	Walkers - Medium-high	High	Major (Significant)	High	Major (Significant)	Medium-low	Moderate (Significant)
VP10: Killiney Hill Obelisk	Walkers - High	High	Major (Significant)	High	Major (Significant)	Medium-low	Moderate (Significant)
VP11: Vico Road seating area	Walkers and residents – High	High	Major / Major-moderate (Significant)	High	Major / Major-moderate (Significant)	Medium-low	Moderate (Significant)

Receptor	Sensitivity	Construction Magnitude of change	Construction Significance of effect	Operation Magnitude of change	Operation Significance of effect	Cumulative Tier Magnitude of change	Cumulative Magnitude of change
	Road-users – Medium-high						
VP12: Coliemore Harbour seating area	Residents and walkers: Medium-high Road-users: Medium	Medium-high	Major-moderate / Moderate (Significant)	Medium-high	Major-moderate / Moderate (Significant)	Medium-low	Moderate (Significant)
VP13: Dún Laoghaire Harbour East Pier	Residents, ferry passengers and walkers: Medium-high Road-users: Medium	Medium-high	Major-moderate / Moderate (Significant)	Medium-high	Major-moderate / Moderate (Significant)	Negligible	Minor (Not significant)
VP14: R131 near Martello Tower, Sandymount	Residents and walkers: Medium-high Road-users: Medium	Medium	Moderate (Significant)	Medium	Moderate (Significant)	Negligible	Minor (Not significant)
VP15: Promenade near Clontarf village	Residents and walkers: Medium-high Road-users: Medium	Medium-low	Moderate / Moderate-minor (Not significant)	Medium-low	Moderate / Moderate-minor (Not significant)	Low	Moderate-minor / Minor (Not significant)
VP16: Near the Bull Wall, North Bull Island	Medium-high	Medium	Moderate (Significant)	Medium	Moderate (Significant)	Medium-low	Moderate (Significant)
VP17: R105, Sutton	Residents, cyclists and walkers: Medium-high Road-users: Medium	Medium	Moderate (Significant)	Medium	Moderate (Significant)	Low	Moderate-minor / Minor (Not significant)
VP18: Howth Head Viewpoint	High	Medium-high	Major (Significant)	Medium-high	Major (Significant)	Medium-low	Moderate (Significant)
VP19: Car park near Martello Tower, Portrane	Walkers: Medium-high Residents and road-users: Medium	Low	Moderate-minor / Minor (Not significant)	Low	Moderate-minor / Minor (Not significant)	Low	Moderate-minor / Minor (Not significant)
VP20: Entrance to new housing estate, Rush	Medium-high	Low	Moderate-minor (Not significant)	Low	Moderate-minor (Not significant)	Low	Moderate-minor / Minor (Not significant)
VP21: Offshore view 7km south-east of Howth Head	Medium-high	High	Major (Significant)	High	Major (Significant)	Medium	Moderate (Significant)
VP22: Tonelagee	Medium-high	Low	Moderate-minor (Not significant)	Low	Moderate-minor (Not significant)	Low	Moderate-minor (Not significant)
VP23: Djouce Mountain	Medium-high	Medium-low	Moderate (Not significant)	Medium-low	Moderate (Not significant)	Low	Moderate-minor (Not significant)

Receptor	Sensitivity	Construction Magnitude of change	Construction Significance of effect	Operation Magnitude of change	Operation Significance of effect	Cumulative Tier Magnitude of change	Cumulative Magnitude of change
VP24: Forty Foot bathing area	Swimmers, walkers and residents: Medium-high Road-users: Medium	Medium-high	Major-moderate / Moderate (Significant)	Medium-high	Major-moderate / Moderate (Significant)	No change	No effect
VP25: Ballyedmonduff Road	Residents: Medium-high Road-users: Medium	Medium	Moderate (Significant)	Medium	Moderate (Significant)	Low	Moderate-minor (Not significant)
VP26: Poolbeg Pier	Medium-high	Medium	Moderate (Significant)	Medium	Moderate (Significant)	Low	Moderate-minor (Not significant)
PVR 1: DART	Medium-high / Medium	Medium-high / Medium / Medium-low Low No change	Major-moderate / Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Medium-high / Medium / Medium-low Low No change	Major-moderate / Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Medium Medium-low Low No Change	Major-moderate or Moderate (Significant) Moderate-minor (Not significant) No effect
PVR 2: N11	Medium-/ Medium-low	Medium-low No change	Moderate-minor / Minor (Not significant) No effect	Medium-low No change	Moderate-minor / Minor (Not significant) No effect	Medium-low Low No change	Moderate-minor / Minor (Not significant) No effect
PVR 3: Wicklow to Bray coastal road (R761)	Medium-high / Medium	Medium-high / Medium Low / Negligible No change	Major-moderate / Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Medium-high / Medium Low / Negligible No change	Major-moderate / Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Medium Low / Negligible No change	Moderate (Significant) Moderate-minor / Minor (Not significant) No effect
PVR 4: Bray to Greystones Cliff Walk	Medium-high	High	Major (Significant)	High	Major (Significant)	Medium	Major-moderate (Significant)
PVR 5: Howth Head Loop	Medium-high	Medium-high No change	Major-moderate (Significant) No effect	Medium-high No change	Major-moderate (Significant) No effect	Medium-low Low No change	Moderate (Significant) Moderate-minor (Not significant) No effect
PVR 6: The Wicklow Way	Medium-high / Medium	Medium-low / Low No change	Moderate / Moderate-minor / Minor (Not significant) No effect	Medium-low / Low No change	Moderate / Moderate-minor / Minor (Not significant) No effect	Low No change	Moderate-minor (Not significant) No effect
PVR 7: Wicklow	Medium-high / Medium	Medium / Medium-low / Low No change	Moderate (Significant) Moderate / Moderate-minor (Not significant) No effect	Medium / Medium-low / Low No change	Moderate (Significant) Moderate / Moderate-minor (Not significant) No effect	Medium Low No change	Moderate (Significant) Moderate / Moderate-minor (Not significant) No effect
PVR 8: Greystones	Medium-high / Medium	Medium-high No change	Major-moderate / Moderate (Significant) No effect	Medium-high No change	Major-moderate / Moderate (Significant) No effect	Medium Low No change	Moderate (Significant)

Receptor	Sensitivity	Construction Magnitude of change	Construction Significance of effect	Operation Magnitude of change	Operation Significance of effect	Cumulative Tier Magnitude of change	Cumulative Magnitude of change
							Moderate / Moderate-minor (Not significant) No effect
PVR 9: Bray	Medium-high / Medium	Medium-high No change	Major-moderate / Moderate (Significant) No effect	Medium-high No change	Major-moderate / moderate (Significant) No effect	Medium Low No change	Moderate (Significant) Moderate / Moderate-minor (Not significant) No effect
PVR 10: Shanganagh	Medium-high / Medium	Medium-high No change	Major- moderate / Moderate (Significant) No effect	Medium-high No change	Major-moderate (Significant) No effect	Medium Low No change	Moderate (Significant) Moderate / Moderate-minor (Not significant) No effect
PVR 11: Shankhill / Ballybrack	Medium-high / Medium	High / Medium-high Low No change	Major / Major-moderate / Moderate (Significant) Moderate-minor (Not significant) No effect	High / Medium-high Low No change	Major / Major-moderate / Moderate (Significant) Moderate-minor (Not significant) No effect	Medium Low No change	Moderate (Significant) Moderate / Moderate-minor (Not significant) No effect
PVR 12: Killiney	Medium-high / Medium	High Low No change	Major / Major-moderate (Significant) Moderate-minor (Not significant) No effect	High Low No change	Major / Major-moderate (Significant) Moderate-minor (Not significant) No effect	Medium-low Low No change	Moderate (Significant) Moderate / Moderate-minor (Not significant) No effect
PVR 13: Dalkey	Medium-high / Medium	Medium-high Low No change	Major-moderate / Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Medium-high Low No change	Major-moderate / Moderate (Significant) Moderate-minor (Not significant) No effect	Medium-low Low No change	Moderate (Significant) Moderate / Moderate-minor (Not significant) No effect
PVR 14: Dún Laoghaire	Medium-high / Medium	Medium-high Low No change	Major-moderate / Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Medium-high Low No change	Major-moderate / Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Negligible No change	Minor (Not significant) No effect
PVR 15: Monkstown / Blackrock	Medium-high / Medium	Medium Low No change	Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Medium Low No change	Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Negligible No change	Minor (Not significant) No effect
PVR 16: Sandymount	Medium-high / Medium	Medium Low No change	Moderate (Significant) Moderate-minor / Minor (Not significant)	Medium Low No change	Moderate (Significant) Moderate-minor (Not significant)	Negligible No change	Minor (Not significant) No effect

Receptor	Sensitivity	Construction Magnitude of change	Construction Significance of effect	Operation Magnitude of change	Operation Significance of effect	Cumulative Tier Magnitude of change	Cumulative Magnitude of change
			No effect		No effect		
PVR 17: Dublin Harbour	Medium	Medium-low / Low No change	Moderate-minor / Minor (Not significant) No effect	Medium-low / Low No change	Moderate-minor / Minor (Not significant) No effect	Negligible No change	Minor (Not significant) No effect
PVR 18: Clontarf	Medium-high / Medium	Medium-low / Low No change	Moderate / Moderate-minor / Minor (Not significant) No effect	Medium-low / Low No change	Moderate / Moderate-minor / Minor (Not significant) No effect	Low No change	Moderate-minor or Minor (Not significant) No effect
PVR 19: Raheny / Kilbarrack / Sutton	Medium-high / Medium	Medium Low No change	Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Medium Low No change	Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Low No change	Moderate-minor (Not significant) No effect
PVR 20: Howth Head	Medium-high / Medium	Medium-high Low No change	Major-moderate / Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Medium-high Low No change	Major-moderate / Moderate (Significant) Moderate-minor / Minor (Not significant) No effect	Medium-low Low No change	Moderate (Significant) Moderate-minor (Not significant) No effect

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Dublin Array Offshore Wind Farm

Environmental Impact Assessment Report

Annex A: EPA definitions in 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports' (May 2022)

EPA Definitions

Table 3.3 Descriptions of Effects	
Quality of Effects It is important to inform the non-specialist reader whether an effect is positive, negative or neutral	Positive Effects A change which improves the quality of the environment (for example, by increasing species diversity; or the improving reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).
	Neutral Effects No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
	Negative/adverse Effects A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health or property or by causing nuisance).
Describing the Significance of Effects “Significance” is a concept that can have different meanings for different topics – in the absence of specific definitions for different topics the following definitions may be useful (also see <i>Determining Significance</i> below.).	Imperceptible An effect capable of measurement but without significant consequences.
	Not significant An effect which causes noticeable ² changes in the character of the environment but without significant consequences.
	Slight Effects An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
	Moderate Effects An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
	Significant Effects An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.
	Very Significant An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
	Profound Effects An effect which obliterates sensitive characteristics
Describing the Extent and Context of Effects Context can affect the perception of significance. It is important to establish if the effect is unique or, perhaps, commonly or increasingly experienced.	Extent Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.
	Context Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)

<p>Describing the Probability of Effects</p> <p>Descriptions of effects should establish how likely it is that the predicted effects will occur – so that the CA can take a view of the balance of risk over advantage when making a decision.</p>	<p>Likely Effects</p> <p>The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.</p> <p>Unlikely Effects</p> <p>The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.</p>
<p>Describing the Duration and Frequency of Effects</p> <p>'Duration' is a concept that can have different meanings for different topics – in the absence of specific definitions for different topics the following definitions may be useful.</p>	<p>Momentary Effects</p> <p>Effects lasting from seconds to minutes</p> <p>Brief Effects</p> <p>Effects lasting less than a day</p> <p>Temporary Effects</p> <p>Effects lasting less than a year</p> <p>Short-term Effects</p> <p>Effects lasting one to seven years.</p> <p>Medium-term Effects</p> <p>Effects lasting seven to fifteen years.</p> <p>Long-term Effects</p> <p>Effects lasting fifteen to sixty years.</p> <p>Permanent Effects</p> <p>Effects lasting over sixty years</p> <p>Reversible Effects</p> <p>Effects that can be undone, for example through remediation or restoration</p> <p>Frequency of Effects</p> <p>Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)</p>

Dublin Array Offshore Wind Farm

Environmental Impact Assessment Report

Annex B: Seascape, Landscape and Visual Impact Assessment Policy

Legislation, Policy and Guidance

Policy/ Legislation	Key provisions	Section where provision is addressed
Legislation		
Offshore Renewable Energy Development Plan II: Strategic Environmental Assessment – Scoping Report (Department of the Environment, Climate and Communications 2022)	The SEA Scoping Report presents a high-level baseline description of seascape character and a plan showing extents of Substantial, Slight-Moderate and Moderate visual effects around the coastline.	A detailed description of all relevant seascape, landscape and visual receptors is presented in Section 15.7 and a detailed assessment of visual effects in sections 15.12, 15.13 and 15.15.
Strategic Environmental Assessment of Offshore Renewable Energy Development Plan (OREDPP) in the Republic of Ireland, Environmental Report Volume 2: Main Report (Department of the Environment, Climate and Communications, 2010)	<i>“...the assessment has identified that a large proportion of the coastline of the east coast (north) comprises seascape types 3 (low plateau) and 4 (low lying coastal plain) which are generally considered to be the least sensitive to offshore wind developments. It is likely therefore that a number of offshore wind farm developments could be accommodated in this area without significant effects on seascape character, depending on the siting of developments, their distance from shore and siting away from more sensitive areas such as Dublin Bay Cliffs, Dundalk Bay and other large bays. In general, it is likely that between 0 and 15km from shore potential effects would be of moderate significance. Any development between 15km and 35km would be slight, with negligible effects beyond 35km.”</i>	The SEA presented in the OREDPP sets out a high-level assessment of the potential effects of offshore wind farm developments on the seascape (meaning seascape, landscape and visual). A full and detailed assessment of the effects on seascape, landscape and visual receptors in respect of the specific development of the Dublin Array offshore infrastructure is presented at sections 15.12, 15.13 and 15.15.

Policy/ Legislation	Key provisions	Section where provision is addressed
Guidelines and technical standards		
Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning and Local Government, 2018) Para 4.31.	<i>“The starting point for EIA is an assessment of the current state of the environment and how this is likely to evolve without the proposed project but having regard to existing and approved projects and likely significant cumulative effects – in other words the ‘do nothing’ scenario.”</i>	Section 15.7 of this chapter presents a baseline description of all relevant seascape, landscape and visual receptors with potential to be significantly affected by the Dublin Array offshore infrastructure.
Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning and Local Government, 2018) Para 6.12.	<i>“The Directive requires that the EIAR describes the cumulation of effects. Cumulative effects may arise from: The interaction between the various impacts within a single project; The interaction between all of the different existing and/or approved projects in the same area as the proposed project.”</i>	The interactions between various environmental aspects within the proposed developments are presented in Volume 8, Chapter 1: Interactions of the Environmental Factors of this EIAR. A summary is provided in section 15.16 of this chapter. The interactions between Dublin Array and other plans and projects are presented in section 15.15 of this chapter.
Guidance on Environmental Impact Statement (EIS) and Natura Impact Statement (NIS) Preparation for Offshore Renewable Energy Projects (Department of Communications, Climate Action and Environment, 2017) (hereafter referred to as the DCCAE Guidance)	<i>“Cumulative impact assessments only need to take account of existing and/or approved projects and not other projects within the planning process.”</i>	The cumulative assessment is presented in section 15.15. To account for the uncertainty associated with projects and plans which have not yet been consented a tiering system has been adopted. Further details of the approach are available in Volume 2, Chapter 4: Cumulative Impact Assessment Methodology.
DCCAE Guidance, 2017 Section 3.2	<i>“All phases of the development should be considered in the assessment process. Each of these phases will have its own specific effects on</i>	All phases of the development have been considered within this chapter. The assessment of effects during the construction,

Policy/ Legislation	Key provisions	Section where provision is addressed
	<i>the environment and will differ in duration. Considering all phases of the development will address full lifecycle effects of a proposed development."</i>	operational and decommissioning phases are presented in sections 15.12, 15.13 and 15.14 respectively.
DCCAE Guidance, 2017 Section 4.5.3	<i>"The zones of influence may differ depending upon the topic under consideration (e.g. the visual zone will differ from the biodiversity zone). In establishing the zones of influence, the following should be identified: the physical footprint of the project; the measures required to determine the overall zones of influence of a project (i.e. the area impacted by the development with reference to the of likely significant effects); and the study area (i.e. that selected for the review). The zones of influence relate primarily to ecological and visual impacts of the development."</i>	The ZTV relating to the Dublin Array offshore infrastructure has been developed through the use of project specific modelling. Further details of the ZTV and the development of the study area is presented in section 15.4.5 to 15.4.7.
DCCAE Guidance, 2017 Section 4.6.3	<i>"A description of the existing environment is required to allow for a prediction of significant likely effects of a development."</i>	A full description of all seascape, landscape and visual receptors with potential to be significantly affected are presented in section 15.7.
DCCAE Guidance, 2017 Section 4.6.3	<i>"The condition of the receiving environment should be used to inform whether or not an effect is significant and to understand its vulnerability and sensitivity."</i>	The assessment criteria for assessing the sensitivity of a receptor to a potential effect is outlined in section 15.5 and includes consideration of the value of the receptor and its susceptibility to the Dublin Array offshore infrastructure.
The Environmental Protection Agency (2022). Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. (The	This document outlines the information to be contained in EIARs and as such, presents a broad overview of the process, with no specific guidance for SLVIA. The document sets out guidelines on 'Describing the Baseline', 'Assessment of Effects', 'Mitigation and Monitoring' and 'Residual Effects and Conclusions'. Table 3.4 sets out terminology to	The process presented in the guidelines is followed in the SLVIA. Section 16.9 of the SLVIA Methodology Appendix presents an overview of the descriptive terminology to be applied to the effects assessed.

Policy/ Legislation	Key provisions	Section where provision is addressed
Environmental Protection Agency, 2022).	describe effects, although it is noted not all categories of terms need to be used.	
Wind Energy Development Guidelines (Department of the Environment, Heritage and Local Government, 2006)	This document relates to onshore wind energy developments. Chapter 6: Aesthetic Considerations in Siting and Design / Appendix 3: Landscape Impact Assessment of Wind Energy Development Proposals. Provides useful guidance on criteria to be used in selection of viewpoints. Guidance on the definition of study areas and production of photomontages out-dated and superseded by more recent guidance.	Guidance has informed the approach to viewpoint selection as presented in section 15.7.
Dún Laoghaire and Rathdown County Development Plan 2022-2028: Written Statement	<i>“Policy Objective G1B2: Landscape Character Areas. It is a Policy Objective to continue to protect, manage and plan to conserve, maintain or enhance the distinctive characteristics of the County’s landscapes, townscapes and seascapes in accordance with the recommended strategies as originally outlined in the Landscape Character Assessment (2002 and since updated), in accordance with the ‘Draft Guidelines for Landscape and Landscape Assessment’ (2000) as issued by the Department of Environment and Local Government, in accordance with the European Landscape Convention (Florence Convention) and in accordance with ‘A National Landscape Strategy for Ireland 2015-2025’. The Council shall implement any relevant recommendations contained in the Department of Arts, Heritage, and the Gaeltacht’s National Landscape Strategy for Ireland, 2015 - 2025.”</i>	The county level landscape character classification produced by Dún Laoghaire and Rathdown County Council is used as the basis of the assessment of Landscape Character Areas presented in sections 15.12, 15.13 and 15.15.

Policy/ Legislation	Key provisions	Section where provision is addressed
Dún Laoghaire and Rathdown County Development Plan 2022-2028: Written Statement	<i>“Policy Objective GIB3: Seascape. “It is a Policy Objective to carry out a Local Seascape Assessment in accordance with any relevant recommendations or methodologies contained in the Irish Marine Institute’s National Seascape Character Assessment and the Department of Culture, Heritage and the Gaeltacht’s ‘National Landscape Strategy for Ireland, 2015 – 2025’.”</i>	In the absence of a county level seascape assessment, reference is made to the Regional Seascape Character Assessment for Ireland 2020 produced by the Marine Institute, and this is covered in section 15.7 with assessments of the seascape receptors presented in sections 15.12, 15.13 and 15.15.
Dublin City Development Plan 2022-2028	<i>“Landscape Objective GI016. To prepare a Landscape Character Assessment (LCA) for Dublin city, during the lifetime of the plan in accordance with the National Landscape Strategy 2015 – 2025 and the forthcoming National Landscape Character Map and national guidance on local landscape character assessments.”</i>	A Landscape Character Assessment has not yet been published by Dublin City Council.
Fingal Development Plan 2023-2029	<i>“Policy GINHP25 – Preservation of Landscape Types. Ensure the preservation of the uniqueness of a landscape character type by having regard to the character, value and sensitivity of a landscape when determining a planning application.”</i>	The county level landscape character classification produced by Fingal County Council is used as the basis of the assessment of Landscape Character Areas presented in sections 15.12, 15.13 and 15.15.
Wicklow County Development Plan 2016-2022: Written Statement referred to in Wicklow County Development Plan 2023 - 2028	<i>“CPO 17.35: All development proposals shall have regard to the County landscape classification hierarchy in particular the key landscape features and characteristics identified in the Wicklow Landscape Assessment (set in Volume 3 of the 2016 County Development Plan) and the ‘Key Development Considerations’ set out for each landscape area set out in Section 5 of the Wicklow Landscape Assessment.”</i> <i>“Wicklow’s Landscape Objectives NH49. All development proposals shall have regard to the</i>	The county level landscape character classification produced by Wicklow County Council is used as the basis of the assessment of Landscape Character Areas presented in sections 15.12, 15.13 and 15.15.

Policy/ Legislation	Key provisions	Section where provision is addressed
	<i>County landscape classification hierarchy in particular the key landscape features and characteristics identified in the Wicklow Landscape Assessment (set in Volume 3 of this plan) and the 'Key Development Considerations' set out for each landscape area set out in Section 5 of the Wicklow Landscape Assessment."</i>	
Wicklow County Development Plan 2023 – 2028	<i>"CPO 17.36. Any application for permission in the AONB which may have the potential to significantly adversely impact the landscape area shall be accompanied by a Landscape / Visual Impact Assessment, which shall include, inter alia, an evaluation of visibility and prominence of the proposed development in its immediate environs and in the wider landscape, a series of photos or photomontages of the site / development from clearly identified vantage points, an evaluation of impacts on any listed views / prospects and an assessment of vegetation / land cover type in the area (with particular regard to commercial forestry plantations which may be felled thus altering character / visibility). The Assessment shall demonstrate that landscape impacts have been anticipated and avoided to a level consistent with the sensitivity of the landscape and the nature of the designation."</i>	The Dublin Array offshore infrastructure is not located in any of the AONBs and, therefore, will not have any direct effects. There is, however, the possibility that indirect effects may arise owing to visibility of the Dublin Array offshore infrastructure being visible from parts of Wicklow County's AONBs. A detailed assessment of the effects on the AONBs are presented in sections 15.12, 15.13 and 15.15. 15.12, 15.13 and 15.15 visualisations from selected viewpoints presented in the SLVIA Visualisations Appendix.
Offshore Renewables – Guidance on Assessing the Impact on Coastal Landscape and	Detailed guidance on the specific requirements of SLVIA for offshore renewable developments. GLVIA3 cited as the appropriate methodology to be applied. Specific considerations set out with regard to establishing the baseline, assessing the impacts	This guidance has informed the SLVIA methodology presented in detail in the SLVIA Methodology Appendix and summarised in section 15.4. It has helped to inform the content and approach of the SLVIA by making sure all key considerations are covered.

Policy/ Legislation	Key provisions	Section where provision is addressed
Seascope: Guidance for Scoping an Environmental Statement (2012) Scottish Natural Heritage	on character and views, and assessing the cumulative impacts.	
Regional Seascope Character Assessment for Ireland 2020 Final Report (2020) The Marine Institute	The aim of this report is to subdivide the Irish coastline into Regional Seascope Character Areas (RSCA) and describes each one in terms of its key characteristics and features.	The SCTs are used as the basis of the assessment of effects on seascope character presented in sections 15.12, 15.13 and 15.15, with information supplemented by the assessors site work.
Guidelines for Landscape and Visual Impact Assessment Third Edition (2013) Landscape Institute and Institute of Environmental Management and Assessment	Detailed guidance on the methodology to be applied in SLVIA, covering assessment of effects and cumulative effects on seascope / landscape character receptors and visual receptors. Used in SLVIA and LVIA across the ROI and the UK and widely regarded as best practice approach.	SLVIA methodology is based on the content of GLVIA 3 and accompanying Notes and Clarifications as detailed in the SLVIA Methodology Appendix and summarised in section 15.4 of this chapter. This methodology has been applied in the production of this SLVIA.
Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third Edition (2024) Landscape Institute	Technical Guidance Note presenting a compilation of clarifications on GLVIA3 in order to help interpret aspects of guidance provided in GLVIA3 and should be read alongside GLVIA3.	SLVIA methodology is based on the content of GLVIA 3 and accompanying Notes and Clarifications as detailed in the SLVIA Methodology Appendix and summarised in section 15.4 of this chapter. This methodology has been applied in the production of this SLVIA.
Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments (https://www.nature.scot/doc/guidance-assessing-cumulative-landscape-and-visual-impact-onshore-wind-energy-developments)	Guidance on the assessment of cumulative impacts of onshore wind farms on landscape and visual receptors but with principles also of relevance to offshore wind farms.	The detailed methodology that aligns with this guidance is presented in detail in the SLVIA Methodology Appendix and summarised in section 15.4. This methodology has been applied in the production of the cumulative assessment in section 15.15.

Policy/ Legislation	Key provisions	Section where provision is addressed
Visual Representation of Wind Farms: Version 2.2 (2017) NatureScot	Detailed guidance on the production of visualisations considered best practice in the UK and NI and also commonly applied to large scale wind farm projects in the ROI.	Information on the production of the visualisations is presented in section 15.8 and the visualisations, produced in line with this guidance, are presented in the SLVIA Visualisations Appendix.
The Environmental Protection Agency (2022). Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. (The Environmental Protection Agency, 2022).	Guidelines on the Information to be Contained in Environmental Impact Assessment Reports https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR_Guidelines_2022WEB.pdf	These Guidelines apply to the preparation of all Environmental Impact Assessment Reports undertaken in the State (ROI).
(DCCAE, 2017)	Guidance on EIS and NIS Preparation for Offshore Renewable Energy Projects https://www.gov.ie/pdf/?file=https://assets.gov.ie/76533/6a82b451-e09f-483b-849e-07d4c7baa728.pdf#page=null	The purpose of this non-statutory guidance is twofold: to assist developers in preparing Environmental Impact Statements (EIS) and Natura Impact Statements (NIS) that may be required for development projects; and to provide competent authorities, consultation bodies and the public with a basis for determining the adequacy of these statements.
DECLG 2018	Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment, DECLG 2018 ; https://www.gov.ie/pdf/?file=https://assets.gov.ie/44535/34aa9919f24243b79454994bc06476e1.pdf#page=null	Guidelines for the Competent Authority to have, or have access to, the necessary expertise to examine the EIAR and reach a reasoned conclusion in respect of the likely significant effects on the environment resulting from the Dublin Array offshore infrastructure.



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