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MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Environmental Statement

Volume 2, Chapter 10: Seascape, landscape and visual resources

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Image of an offshore wind farm

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Errata

Errata reference number	Deadline included	Document number	Volume and chapter	Paragraph/ Table/Figure	Description of errata	Correction
1	PD	APP-014	Volume 2, Chapter 10: Seascape, landscape and visual resources	10.8.6.6 10.8.6.8 10.8.6.10 10.8.7.6 10.8.8.7 10.8.10.6 10.8.13.65 10.8.13.125 10.8.13.137 10.8.13.149 10.8.13.161 10.8.13.173 10.8.13.185 10.8.13.197	The paragraphs listed included the text '(i.e. very good visibility 20 km to 40 km approximately 70% of the year)'.	This text should read '(i.e. very good visibility 20 km to 40 km approximately 40% of the year)'.

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Glossary

Term	Meaning
Access Land	Land designated as open access as defined in the Countryside and Rights of Way Act 2000 (the CRoW Act).

Term	Meaning
Characteristics	Elements, or combinations of elements, which make a contribution to distinctive landscape character.
Designated landscapes	Areas of landscape identified as being of importance at international, national or local levels, either defined by statute or identified in development plans or other documents.
Effect	Best practice guidance defines effect as the change resulting from an impact (which is defined as '*the action being taken*') (e.g. the effect erecting a building/structure of removing a tree on seascape/landscape character or views/visual amenity). (GLVIA3, pages 8-9).
Elements/components	Individual parts of a thing (e.g. different elements of a landscape which make up the whole, such as, for example, trees, hedges and buildings).
Feature	Prominent elements in the landscape, such as tree clumps, church towers or wooded skylines.
Green infrastructure	Networks of green spaces and watercourses and water bodies that connect rural areas, villages, towns and cities.
Heritage	The historic environment and especially valued assets and qualities, such as historic buildings and cultural traditions.
Impact	Best practice guidance defines impact as '*the action being taken'* (as opposed to the change resulting from the action) (e.g. a tree being removed or building/structure being erected) (GLVIA3, pages 8-9).
Key characteristics	Elements which are particularly important to the current character of the landscape and help to give an area its particularly distinctive sense of place.
Landform	The shape and form of the land surface which has resulted from combinations of geology, geomorphology, slope, elevation and physical processes.
Landscape	An area, as perceived by people, the character of which is a result of the action and interaction of natural and/or human factors.
Landscape character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Landscape Character Areas	These are single unique areas which are the discrete geographical areas of a particular landscape type.
Landscape Character Assessment	The process of identifying and describing variation in the character of the landscape and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscape distinctive. The process results in the production of a Landscape Character Assessment.
Landscape Character Type	These are distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation, historical land use, and settlement pattern.
Landscape effects	Effects on the landscape as a resource in its own right.
Landscape quality (condition)	A measure of physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.
Landscape receptors	Defined aspects of the landscape resource that have the potential to be affected by the proposal.
Landscape value	The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons.

Term	Meaning
Morgan Offshore Wind Project: Generation Assets	The Morgan Offshore Wind Project is comprised of both the generation assets and offshore and onshore transmission assets and associated activities.
Morgan Offshore Wind Project:	The Morgan Offshore Wind Project is comprised of both the generation assets and offshore and onshore transmission assets and associated activities.
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The transmission assets for the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm. This includes the Offshore Substation Platforms (OSPs), interconnector cables, Morgan offshore
Photomontage	A visualisation which superimposes an image of a proposed development upon a photograph or series of photographs of the existing landscape.
Representative viewpoint	A viewpoint location that is chosen to represent a number of publicly accessible views.
Seascape	The visual and physical conjunction of land and sea which combines maritime, coast and hinterland character.
Special Qualities	A term usually used in relation to National Parks or Areas of Outstanding Natural Beauty. It is given to those qualities for which the area is designated.
Townscape	The character and composition of the built environment including the buildings and the relationships between them, the different types of urban open space, including green spaces, and the relationship between buildings and open spaces.
Tranquillity	A state of calm and quietude associated with peace, considered to be a significant feature in the landscape.
Visual amenity	The overall pleasantness of the views people enjoy in their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.
Visual effects	Effects on specific views and on general visual amenity experienced by people.
Visual receptors	Individuals and/or defined groups of people who have the potential to be affected by a proposal.
Visualisation	A computer simulation, photomontage or other technique illustrating the judged appearance of a proposed development.
Zone of Theoretical Visibility	A map, usually digitally produced, showing areas of land within which, a development is theoretically visible.

Acronyms

Acronym	Description
AOD	Above Ordnance Datum
CEA	Cumulative Effect Assessment
DCO	Development Consent Order
EIA	Environmental Impact Assessment
GLVIA3	Guidelines for Landscape and Visual Impact Assessment: Third Edition
HFoV	High-Frequency Oscillatory Ventilation
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
IoM	Isle of Man
LAT	Lowest Astronomical Tide
LCA	Landscape Character Area
LCT	Landscape Character Type
MCA	Marine Character Area
MDS	Maximum Design Scenario
MER	Manx Electric Railway
MMO	Marine Management Organisation
NCR	National Cycle Route
NCA	National Character Area
NL	National Landscape (formerly Area of Outstanding Natural Beauty)
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NRW	Natural Resources Wales
NSIP	Nationally Significant Infrastructure Project
OS	Ordnance Survey
OSPs	Offshore Substation Platforms
PEIR	Preliminary Environmental Impact Assessment
PROW	Public Right of Way
RYA	Royal Yatching Association
SCA	Seascape Character Area
SLA	Sensitive Landscape Area
SLVIA	Seascape and Landscape Visual Impact Assessment
SSZ	Seascape Sensitivity Zone
WHS	World Heritage Site
ZTV	Zone of Theoretical Visibility

Units

Unit	Description
%	Percentage
MW	Megawatts
km	kilometres
m	metres
nm	nautical miles
cd	candelas
°	degrees

10 Seascape, landscape and visual resources

10.1 Introduction

10.1.1 Overview

10.1.1.1 This chapter of the Environmental Statement presents the assessment of the potential impact of the Morgan Offshore Wind Project Generation Assets (hereafter referred to as the Morgan Generation Assets) on seascape, landscape and visual resources, comprising a Seascape Landscape and Visual Impact Assessment (SLVIA). Specifically, this chapter considers the potential impact of the Morgan Generation Assets during the construction, operations and maintenance, and decommissioning phases.

10.1.1.2 This chapter also draws upon information contained within the following documents:

- Volume 4, Annex 10.1: Seascape, landscape and visual resources legislation and planning policy context
- Volume 4, Annex 10.2: Seascape and landscape character baseline technical report
- Volume 4, Annex 10.3: Visual baseline technical report
- Volume 4, Annex 10.4: Seascape, landscape and visual resources impact assessment methodology
- Volume 4, Annex 10.5: International and nationally designated landscapes study
- Volume 4, Annex 10.6: Seascape visualisations.

10.1.1.3 The primary purpose of the Environmental Statement is outlined in Volume 1, Chapter 1: Introduction of the Environmental Statement. In summary, the primary purpose of an Environmental Statement is to support the Development Consent Order (DCO) application for Morgan Generation Assets under the Planning Act 2008 (the 2008 Act). The Environmental Statement constitutes the Environmental Information for Morgan Generation Assets and sets out the findings of the Environmental Impact Assessment (EIA) to accompany the application to the Secretary of State for Development Consent.

10.1.1.4 In particular, this Environmental Statement chapter:

- Presents the existing environmental baseline established from desk studies, site-specific surveys and consultation
- Identifies any assumptions and limitations encountered in compiling the environmental information
- Presents the potential environmental effects on seascape, landscape and visual resources arising from the Morgan Generation Assets, based on the information gathered and the analysis and assessments undertaken
- Highlights any necessary monitoring and/or mitigation measures which could prevent, minimise, reduce or offset the possible environmental effects of the Morgan Generation Assets on seascape, landscape and visual resources.

10.2 Policy context

10.2.1.1 The policy context for the Morgan Generation Assets is set out in Volume 1, Chapter 2: Policy and legislation of the Environmental Statement. Specific policy relevant to

seascape, landscape and visual resources is set out in Volume 4, Annex 10.1: Seascape, landscape and visual resources legislation and planning policy context of the Environmental Statement, a short summary of which is provided here.

10.2.1 Legislation

10.2.1.1 National government policy and underpinning legislation is summarised in Table 10.1 below together with how and where it has been considered in the SLVIA of Morgan Generation Assets.

Table 10.1: Summary of national government legislation and policy relevant to seascape, landscape and visual resources.

Summary of national legislation / policy	How and where considered in the Environmental Statement
Primary Legislation	
National Parks (NPs) and Access to the Countryside Act 1949. Relevance: Nationally designated landscapes fall within the Morgan Generation Assets SLVIA study area.	The effect on the Lake District National Park and the English Lake District World Heritage Site (WHS) are documented in Volume 4, Annex 10.5: International and nationally designated landscapes study of the Environmental Statement.
Environment Act 1995 Relevance: Nationally designated landscapes fall within the Morgan Generation Assets SLVIA study area.	The effect on the special qualities of the Lake District National Park and attributes of outstanding universal value of the English Lake District World Heritage Site is documented in Volume 4, Annex 10.5: International and nationally designated landscapes study of the Environmental Statement.
Countryside and Rights of Way Act 2000 (CRoW Act) Relevance: Access Land (mountain, moor, heath and down) is designated under the CroW Act 2000. There are areas of Access Land within the Morgan Generation Assets SLVIA study area.	The effects on The Lake District National Park are documented in Volume 4, Annex 10.5: International and nationally designated landscapes study of the Environmental Statement. The effect on land within the 50 km SLVIA Study Area designated as Access Land is addressed in the impact assessment in section 10.8.
The Marine and Coastal Access Act 2009. Relevance: Areas of the sea fall within the Morgan Generation Assets SLVIA study area.	The effect on sea and land adjacent to the coast within the 50 km SLVIA Study Area is addressed in the impact assessment in section 10.8 where appropriate.
Planning Policy and Guidance	
UK Marine Policy Statement (MPS) (2011)	Reviewed in Volume 4 Annex 10.1: Seascape, landscape and visual resources legislation and planning policy context of the Environmental Statement.
Welsh National Marine Plan November 2019	
National Planning Policy Statements (NPS EN-1 Overarching National Planning Policy Statement for Energy and NPS EN-3 National Planning Policy Statement for Renewable Energy) (2023a, 2023b)	Reviewed in Volume 4 Annex 10.1: Seascape, landscape and visual resources legislation and planning policy context of the Environmental Statement.
National Planning Policy Framework (NPPF) (Sept 2023)	Reviewed in Volume 4 Annex 10.1: Seascape, landscape and visual resources legislation and planning policy context of the Environmental Statement.

Summary of national legislation / policy	How and where considered in the Environmental Statement
Isle of Man Government – Area Plan for the East 2020 (Adopted December 2020)	Reviewed in Volume 4 Annex 10.1: Seascape, landscape and visual resources legislation and planning policy context of the Environmental Statement.

10.2.1.2 The Morgan Generation Assets will be located in English offshore waters (beyond 12 nautical miles (nm) from the English coast). As set out in Volume 1, Chapter 1: Introduction of this Environmental Statement, as the Morgan Generation Assets is an offshore generating station with a capacity of greater than 100 MW located in English waters, it is a Nationally Significant Infrastructure Project (NSIP) as defined by Section 15(3) of the 2008 Act. As such, there is a requirement to submit an application for a DCO to the Planning Inspectorate to be decided by the Secretary of State for the Department for Energy Security and Net Zero (DESNZ).

10.2.2 National Policy Statements

10.2.2.1 Planning policy on renewable energy infrastructure is presented in Volume 1, Chapter 2: Policy and legislative context of the Environmental Statement.

10.2.2.2 Planning policy on offshore renewable energy Nationally Significant Infrastructure Projects (NSIPs), specifically in relation to seascape and visual resources, is contained in the Overarching National Policy Statement (NPS) for Energy (EN-1; DESNZ, 2023a) and the NPS for Renewable Energy Infrastructure (EN-3, DESNZ, 2023b).

10.2.2.3 NPS EN-1 and NPS EN-3 include guidance on what matters are to be considered in the assessment. These are summarised in Table 10.2 and Table 10.3. These tables also highlight several factors relating to NPS EN-1 and NPS EN-3 and the determination of an application and in relation to mitigation.

Table 10.2: Summary of the NPS EN-1 and NPS EN-3 provisions relevant to seascape, landscape and visual resources.

Summary of NPS EN-1 and EN-3 provision	How and where considered in the Environmental Statement
Summary of NPS EN-1 policy	
Whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, landform, and vegetation. Furthermore, the design and sensitive use of materials in any associated development such as electricity substations will assist in ensuring that such development contributes to the quality of the area. Applicants should also, so far as is possible, seek to embed opportunities for nature inclusive design within the design process. [Paragraph 4.7.6 of NPS EN-1]	Impact Assessment Criteria in section 10.5.2 and Volume 1, Chapter 5: Environmental Impact Assessment methodology of the Environmental Statement.
Landscape effects arise not only from the sensitivity of the landscape but also the nature and magnitude of change proposed by the development, whose specific siting and design make the assessment a case-by-case judgement. [Paragraph 5.10.4 of NPS EN-1]	Impact Assessment Criteria in section 10.5.2 and Volume 1, Chapter 5: Environmental Impact Assessment methodology of the Environmental Statement; section 10.9: SLVIA Assessment of significant effects

Summary of NPS EN-1 and EN-3 provision	How and where considered in the Environmental Statement
Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation. [Paragraphs 5.10.5 of NPS EN-1].	
Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate. [Paragraphs 5.10.6 of NPS EN-1].	
The landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England and local development plans in Wales. [Paragraph 5.10.17 of NPS EN-1]	The existing seascape and landscape character and assessments are described (reviewed in Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement).
The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England and local development plans in Wales. [Paragraph 5.10.17 of NPS EN-1]	Relevant planning policy used to inform the assessment is outlined in Volume 4, Annex 10.1: Seascape, landscape and visual impact assessment legislation and planning policy context of the Environmental Statement and national policy is summarised in Table 10.1.
For seascapes, applicants should consult the Seascape Character Assessment and the Marine Plan Seascape Character Assessments, Marine Plan Seascape Character Assessments any and any successors to them. [Paragraph 5.10.18 of NPS EN-1]	
The applicant should consider landscape and visual matters in the early stages of siting and design, where site choices and design principles are being established. This will allow the applicant to demonstrate in the ES how negative effects have been minimised and opportunities for creating positive benefits or have been recognized and incorporated into the design, delivery and operation of the scheme. [Paragraph 5.10.19 of NPS EN-1]	The maximum design scenario is set out in Table 10.17. Assessment of effects on the seascape and landscape elements are assessed in section 10.8 and section 10.9.
The assessment should include the effects on landscape components and character during construction and operation. For projects which may affect a National Park, The Broads or an Area of Outstanding Natural Beauty (AONBs) [now National Landscapes] the assessment should include effects on the natural beauty and special qualities of these areas. [Paragraph 5.10.20 of NPS EN-1]	Assessments of effects on seascape and landscape resources are assessed in section 10.8. The special qualities of nationally designated landscapes are assessed in Volume 4, Annex 10.5: International and nationally designated landscapes study of the Environmental Statement.

Summary of NPS EN-1 and EN-3 provision	How and where considered in the Environmental Statement
The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include light pollution effects, including on local amenity, and nature conservation. [Paragraph 5.10.21 of NPS EN-1]	Assessments of effects on visual resources are assessed in section 10.8.5 to 10.8.13. Night time effects on visual receptors are assessed in section 10.8.14.
Summary of NPS EN-3 policy	
When considering applications for CNP [critical national priority] Infrastructure in sites with nationally recognised designations (such as SSSIs, National Nature Reserves, National Parks, the Broads, Areas of Outstanding Natural Beauty, Registered Parks and Gardens, and World Heritage Sites), the Secretary of State will take as the starting point that the relevant tests in Sections 5.4 and 5.10 of EN-1 have been met, and any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the urgent need for this type of infrastructure [Paragraph 2.3.6 of NPS EN-3]	The Morgan Generation Assets is CNP Infrastructure. The Morgan Generation Assets will have no direct effects on National Parks or National Landscapes. The Morgan Generation Assets would be visible from the lake District National Park. This landscape has the potential to be indirectly affected. The effects on the special qualities of the Lake District National Park are considered in detail in Volume 4, Annex 10.5: Internationally and nationally designated landscape study of the Environmental Statement.
Where a proposed offshore wind farm will be visible from the shore and would be within the setting of a nationally designated landscape with potential effects on the area's statutory purpose, an SLVIA should be undertaken in accordance with the relevant offshore wind farm Environmental Impact Assessment (EIA) policy and the latest Offshore Energy SEA, including the White 2020 Report. The SLVIA should be proportionate to the scale of the potential impacts. This will always be the case where a coastal National Park or AONB, or a Heritage Coast or their setting is potentially affected. [Paragraph 2.8.208 of NPS EN-3]	The methodology used to assess the effects of the Morgan Generation Assets, is set out in Volume 4, Annex 10.4: Seascape, landscape and visual impact assessment methodology of the Environmental Statement. The assessment in this SLVIA Environmental Statement chapter is in proportion to the scale of the Morgan Generation Assets.
Where necessary, assessment of the seascape should include an assessment of four principal considerations on the likely effect of offshore wind farms on the coast: • the limit of visual perception from the coast under poor, good and best lighting conditions • the effects of navigation and hazard prevention lighting on dark night skies; • individual landscape and visual characteristics of the coast and the special qualities of designated landscapes, such as World Heritage Sites and National Parks, which limits the coast's capacity to absorb a development; and • how people perceive and interact with the coast and natural seascape and interact with the coast and natural seascape. [Paragraph 2.8.209 of NPS EN-3]	The Morgan Array will be visible from the shore on days with good visibility. Meteorological Office visibility data for the years 2012 to 2022 is set out in Volume 4, Annex 10.4: Seascape, landscape and visual impact methodology of the Environmental Statement. Night time impacts are assessed in section 10.8.14 of this chapter. The effects on the special qualities of designated landscapes are assessed in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.
As part of the SLVIA, photomontages will be required. Viewpoints to be used for the SLVIA should be selected in consultation with the statutory consultees at the EIA Scoping stage. [Paragraph 3.8.210 of NPS EN-3]	Photomontages and wirelines have been produced for representative viewpoints in Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement.

Summary of NPS EN-1 and EN-3 provision	How and where considered in the Environmental Statement
Applicants should assess the magnitude and significance of change to both the identified seascape receptors (such as seascape and landscape units, visual receptors, and the special qualities of designated landscapes) in accordance with the standard methodology for SLVIA. [Paragraph 3.8.211 of NPS EN-3]	The SLVIA has been undertaken in accordance with Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3). The assessment of effects on seascape and landscape resources and receptors is outlined in section 10.8.2 and section 10.8.3 of this chapter. The effects on visual receptors is outlined in section 10.8.5 to 10.8.14 of this chapter. The effects on the special qualities of designated landscapes are assessed in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement. The methodology used to assess the effects on seascape, landscape and visual resources and receptors is set out in Volume 4, Annex 10.4: Seascape, landscape and visual impact assessment methodology of the Environmental Statement.
Where appropriate, cumulative SLVIA should be undertaken in accordance with the policy on cumulative assessment outlined in Section 5.10.16-17 of EN-1. [Paragraph 3.8.212 of NPS EN-3]	A cumulative impact assessment has been undertaken and is presented in section 10.9 of this chapter.

Table 10.3: Summary of NPS EN-1 and NPS EN-3 policy on decision making relevant to seascape, landscape and visual resources.

Summary of NPS EN-1 and EN-3 provision	How and where considered in the Environmental Statement
Summary of provisions in NPS EN-1	
The Secretary of State will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project. [Paragraphs 5.10.14 of NPS EN-1]	The effects on visual receptors is assessed in section 10.8 of this chapter.
Reducing the scale of a project can help to mitigate the visual and landscape effects of a proposed project. However, reducing the scale or otherwise amending the design of a proposed energy infrastructure project may result in a significant operational constraint and reduction in function – for example, electricity generation output. There may, however, be exceptional circumstances, where mitigation could have a very significant benefit and warrant a small reduction in function. In these circumstances, the Secretary of State may decide that the benefits of the mitigation to reduce the landscape and/or visual effects outweigh the marginal loss of function. [Paragraph 5.10.26 of NPS EN-1]	Given the dynamic nature of most of the visual receptors and the location of the project offshore, no additional measures are proposed specifically in relation to the location, scale or arrangement and layout of the wind turbines.
The duty to seek to further the purposes of nationally designated landscapes also applies when considering applications for projects outside the boundaries of these areas, which may have impacts within them. The aim should be to avoid harming the purposes of designation	No elements of the Morgan Generation Assets are located within any designated landscapes. The effects on the special qualities of nationally designated landscapes are assessed in Volume 4, Annex 10.5:

Summary of NPS EN-1 and EN-3 provision	How and where considered in the Environmental Statement
or to minimise adverse effects on designated landscapes, and such projects should be designed sensitively given the various siting, operational, and other relevant constraints. The fact that a proposed project will be visible from within a designated area should not in itself be a reason for the Secretary of State to refuse consent. [Paragraph 5.10.34 of NPS EN-1]	International and nationally designated landscape study of the Environmental Statement.
The scale of energy projects means that they will often be visible across a very wide area. The Secretary of State should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project. [Paragraph 5.10.35 of NPS EN-1]	The Maximum Design Scenario was used to identify potential impacts on seascape, landscape and visual resources and receptors (Table 10.17). effects of the temporary and permanent elements of the offshore components of the project on seascape, landscape and visual receptors are considered within section 10.8 of this chapter.
In reaching a judgement, the Secretary of State should consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the Secretary of State considers reasonable. [Paragraph 5.10.36 of NPS EN-1]	
The Secretary of State should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by appropriate mitigation. [Paragraph 5.10.37 of NPS EN-1]	See Volume 1, Chapter 4: Site Selection and Consideration of Alternatives of the Environmental Statement for further detail on site selection criteria. The AfL dictates the area within which the Morgan Generation Assets has to be located. The boundary of the Array Area has been revised (reduced) to minimise effects on shipping and navigation, other sea users and to increase separation from landscape and visual resources and receptors. Given the dynamic nature of the majority of the visual receptors and the location of the Morgan Generation Assets no additional measures are proposed specifically in relation to the location or arrangement of the wind turbines.
Summary of provisions in NPS EN-3	
The Secretary of State should assess the proposal in accordance with the policy set out in the landscape and visual impacts Section 5.10 of EN-1. [Paragraph 2.8.349 of NPS EN-3]	The assessment of the Morgan Gemeration Assets has considered the likely significance of effects, considering each phase of the development process. The likely significance of effects is outlined in this chapter (refer to Section 10.13 for the summary of potential seascape, landscape and visual effects).
Where a proposed offshore wind farm is within sight of the coast, there may be adverse effects. The Secretary of State should not refuse to grant consent for a development solely on the ground of an adverse effect on the seascape or visual amenity unless: • it considers that an alternative layout within the identified site could be reasonably proposed which would minimise any harm, taking into account other constraints that the applicant has faced such as ecological effects, while maintaining safety or economic viability of the application; or • it takes account of the sensitivity of the receptor(s) and impacts on the statutory purposes of designated	The assessment of effects on seascape and landscape resources and receptors is outlined in section 10.8.2 and 10.8.3 of this chapter. The effects on visual receptors is outlined in section 10.8.5 to 10.8.13 of this chapter. The effects on the special qualities of designated landscapes are assessed in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.

Summary of NPS EN-1 and EN-3 provision	How and where considered in the Environmental Statement
landscapes as set out in Section 5.10 of EN-1; and decides that the harmful effects outweigh the benefits of the proposed scheme. See also Critical National Priority (Section 3 of this NPS [Paragraph 2.8.351 of NPS EN-3] Where adverse effects are anticipated either during the construction or operational phases, in coming to a judgement, the Secretary of State should consider the extent to which the effects are temporary or reversible. [Paragraph 2.8.352 of NPS EN-3]	
Neither the design nor scale of individual wind turbines can be changed without significantly affecting the electricity generating output of the wind turbines. Therefore, the Secretary of State should expect it to be unlikely that mitigation in the form of reduction in scale will be feasible. However, the siting layout of the turbines should be designed appropriately to minimise harm, considering other constraints such as ecological effects, safety reasons or engineering and design parameters. [Paragraphs 2.8.263 to 2.8.264 of NPS EN-3]	Alternatives of the Environmental Statement for details for further detail on site selection criteria. The AfL dictates the area within which the Morgan Generation Assets has to be located. The boundary of the Morgan Array Area has been revised (reduced) to minimise effects on shipping and navigation, other sea users and to increase separation from landscape and visual resources and receptors.

10.2.3 UK Marine Policy Statement, Welsh National Marine Plan and Northwest Inshore and Northwest Offshore Marine Plans

10.2.3.1 The assessment of potential changes to seascape, landscape and visual resources has also been made with consideration to the specific policies set out in the Welsh National Marine Plan (Welsh Government, 2019) and Northwest Inshore and Northwest Offshore Marine Plans (MMO, 2021). Key provisions are set out in Table 10.4, along with details as to how these have been addressed within the assessment. Further detail on the policies is provided in Volume 4, Annex 10.1: Seascape, landscape and visual resources legislation and planning policy context of the Environmental Statement.

Table 10.4: UK Marine Policy Statement, Welsh National Marine Plan and Northwest Inshore and Northwest Offshore Marine Plan policies relevant to seascape, landscape and visual resources.

Policy	How and where considered in the Environmental Statement
UK Marine Policy Statement	
The effects of activities and developments in the marine and coastal area on the landscape, including seascape, will vary on a case-by-case basis according to the type of activity, its location and its setting. There is no legal definition for seascape in the UK but the European Landscape Convention (ELC) defines landscape as "*an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors*". In the context of this document, references to seascape should be taken as meaning landscapes with views of the coast or seas, and coasts	The chapter considers both offshore and onshore seascape and landscape and visual resources and receptors, as defined both in the ELC and in Guide to Best Practice in Seascape Assessment (Hill *et al*., 2001, INTERREG Report No. 5).

Policy	How and where considered in the Environmental Statement
and the adjacent marine environment with cultural, historical and archaeological links with each other (paragraph 2.6.5.1).	
When developing Marine Plans, marine plan authorities should consider at a strategic level visual, cultural, historical and archaeological impacts not just for those coastal areas that are particularly important for seascape, but for all coastal areas, liaising with terrestrial planning authorities as necessary. In addition, any wider social and economic impacts of a development or activity on coastal landscapes and seascapes should be considered (paragraph 2.6.5).	Seascape landscape and visual resources and receptors are considered within this Environmental Statement chapter. Historic seascape and the setting of historic assets are considered in Volume 2, Chapter 8: Marine archaeology and cultural heritage of the Environmental Statement. The socio-economic effects of Morgan Generation Assets are considered in Volume 2, Chapter 13: Socio-economics of the Environmental Statement.
In considering the impact of an activity or development on seascape, the marine plan authority should take into account existing character and quality, how highly it is valued and its capacity to accommodate change specific to any development. Landscape Character Assessment methodology may be an aid to this process (paragraph 2.6.5.2).	Where available published seascape and landscape assessments have been used. Where not available, such as the outer Isle of Man territorial waters, baseline information from other chapters in the Environmental Statement have been used to characterise the seascape and establish seascape sensitivity.
Welsh National Marine Plan	
SOC_06: Designated landscapes	No element of the Morgan Generation Assets lies within a nationally designated seascape or landscape. A 60 km SLVIA study area is identified for the assessment of effects on the special qualities of nationally and internationally designated landscapes. This is documented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.
SOC_07: Seascapes	The assessment of the Morgan Generation Assets on seascape, landscape and visual resources and receptors is considered in section 10.8 and summarised in Table 10.23. There are limited opportunities for mitigating seascape or visual effects for the Morgan Generation Assets. However, Table 10.18 details those that are proposed for the Morgan Generation Assets.
GOV_01: Cumulative effects	Cumulative effects are considered in section 10.9 and summarised in Table 10.24.
GOV_02: Cross-border and plan compatibility	Cross-border and transboundary impacts are considered in section 10.11 of this chapter. For the Morgan Generation Assets, these consist of the different landmasses framing this part of the Irish Sea - the Isle of Man, Wales and England, as well as the territorial waters that lie within the 50 km SLVIA Study Area.
ELC_01a: Low carbon energy (supporting) wind	The Morgan Generation Assets is an offshore wind project located wholly in English territorial waters.
Northwest Inshore and Northwest Offshore Coast Marine Plans	
NW-CO-1 Proposals that optimise the use of space and incorporate opportunities for co-existence and co-operation with existing activities will be supported.	The Agreement for Lease (AfL) area is the result of the UK Offshore Wind Leasing Round 4 including the plan-level Habitat Regulations Assessment undertaken by The

Policy	How and where considered in the Environmental Statement
	Crown Estate. Within that area and given other 'hard' constraints, there is little opportunity for relocating the Morgan Generation Assets. Other mitigation is considered in Table 10.18.
NW-REN-1 Proposals that enable the provision of renewable energy technologies and associated supply chains, will be supported.	The socio-economic effects of the Morgan Offshore Wind Project are considered in Volume 2, Chapter 13: Socio-economics of the Environmental Statement.
NW-REN-2 Proposals for new activity within areas held under a lease or an agreement for lease for renewable energy generation should not be authorised, unless it is demonstrated that the proposed development or activity will not reduce the ability to construct, operate or decommission the existing or planned energy generation project.	The Applicant entered into the AfL for the Morgan Generation Assets in 2022.
NW-REN-3 Proposals for the installation of infrastructure to generate offshore renewable energy, inside areas of identified potential and subject to relevant assessments, will be supported.	The proposed Morgan Generation Assets aligns with this policy. See Volume 1, Chapter 4: Site Selection and Consideration of Alternatives of the Environmental Statement for details for further detail on site selection criteria.
NW-SCP-1 Proposals should ensure they are compatible with their surroundings and should not have a significant adverse impact on the character and visual resource of the seascape and landscape of the area.	The assessment of potential impacts is set out within section 10.8. Measures adopted as part of the Morgan Generation Assets are set out within section 10.7. A summary of potential effects is set out in section 10.13. The effects of Morgan Generation Assets on the Lake District National Park are documented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement and includes consideration of the Lake District National Park and the English Lake District World Heritage Site.
NW-TR-1 Proposals that promote or facilitate sustainable tourism and recreation activities, or that create appropriate opportunities to expand or diversify the current use of facilities, should be supported.	The effects on tourism and recreation are considered in Volume 2, Chapter 13: Socio-economics of the Environmental Statement.
NW-CBC-1 Proposals must consider cross-border impacts throughout the lifetime of the proposed activity. Proposals that impact upon one or more marine plan areas or terrestrial environments must show evidence of the relevant public authorities (including other countries) being consulted and responses considered.	Cross-border and transboundary impacts are considered in section 10.11. For Morgan Generation Assets, these are limited to the landmasses framing this part of the Irish Sea, namely England, the Isle of Man and Wales as well as the territorial waters that lie within the 50 km SLVIA Study Area.

10.2.4 Planning Policy Isle of Man

10.2.4.1 The assessment of potential changes to seascape, landscape and visual resources has also been made with consideration to the specific policies set out in Table 10.5.

Table 10.5: Isle of Man Government – Area Plan for the East 2020 policies of relevance to seascape, landscape and visual resources.

Policy	How and where considered in the Environmental Statement
Landscape Proposal 1 - Broad landscape strategies The broad landscape strategies and key views set out in this Chapter for the Landscape Character Areas, shall be taken to be (in addition to any other Landscape Proposals set out for each Area), the relevant policy statements on matters of landscape in the East. Applications for development must demonstrate consideration has been given to such landscape strategies and key views	There will be no direct effects on the landscape of the Isle of Man as a result of Morgan Generation Assets. Indirect and not significant effects on the character of the landscapes on the east coast will arise and these are outlined in Section 10.8.3 of this report.
Landscape Proposal 8 - Douglas Bay The open, expansive headlands of Douglas and Onchan shall be protected from visual intrusion.	The effects resulting from Morgan Generation Assets have been considered on the landscape of the Isle of Man and on viewers, including at Douglas Head. These are documented in Section 10.8.3 and the visual impact assessment (Section 10.8.5 to 10.8.13)

10.2.5 Planning Policy England

10.2.5.1 The assessment of potential changes to seascape, landscape and visual resources has also been made with consideration to the specific policies set out in The National Planning Policy Framework (December 2023) (NPPF) in England. Key provisions are set out in Table 10.6, along with details as to how these have been addressed within the assessment.

Table 10.6: English National Planning Policy Framework of relevance to seascape, landscape and visual resources.

Policy	How and where considered in the Environmental Statement
National Planning Policy Framework	
Section 2, Paragraph 11. Plans and decisions should apply a presumption in favour of sustainable development. For decision-taking this means d) …granting permission unless: i. "the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed. Footnote 7 lists those sites of particular importance. For landscape these are: Local Green Space; Areas of Outstanding Natural Beauty (AONB); and National Parks	The effects on the Special Qualities of the Lake District National Park and the attributes of outstanding universal value of the English Lake District WHS are considered and assessed in Volume 4, Annex 10.5: International and nationally designated landscape study

Policy	How and where considered in the Environmental Statement
Section 15: Conserving and enhancing the natural environment, paragraph 180. "Planning policies and decisions should contribute to and enhance the natural and local environment by: protecting and enhancing valued landscapes" … "(in a manner commensurate with their statutory status or identified quality in the development plan); recognising the intrinsic character and beauty of the countryside …and "Maintaining the character of the undeveloped coast…"	Potential impacts on seascape and marine character areas, landscape character areas and potential impacts on views are considered within the assessments of significant effects in section 10.8 and cumulative effects assessment in section 10.9.

10.3 Consultation

10.3.1.1 A summary of the key topics raised during consultation activities undertaken to date specific to seascape, landscape and visual resources is presented in Table 10.7 below, together with how these topics have been considered in the production of this Environmental Statement chapter. Feedback on the candidate representative viewpoints was requested from the following stakeholders:

- Natural England
- Natural Resources Wales
- Anglesey County Council
- Conwy County Borough Council
- Denbighshire County Council
- Gwynedd Council
- West Lancashire Borough Council
- Preston City Council
- Chorley Council
- Lancashire County Council
- Sefton Council
- Fylde Borough Council
- Blackpool City Council
- Lake District National Park Authority
- Isle of Man Government.

10.3.1.2 Further detail is presented in Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement and Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Table 10.7: Summary of key matters raised during consultation activities undertaken for the Morgan Generation Assets relevant to seascape, landscape and visual resources.

Date	Consultee and type of response	Comment	Response to comment raised and/or where considered in this chapter
July 2022	The Planning Inspectorate – Scoping Opinion	Impacts from all project phases on seascape and landscape character and visual resources beyond the study area. The Inspectorate acknowledges the intention to establish a Zone of Theoretical Visibility (ZTV) to underpin the assessment, and provided that the ZTV is robust agrees that no significant effects are likely to occur beyond it. The Environmental Statement should demonstrate how the ZTV has been established, including the outcomes of consultation. The Applicant should seek to agree the extent of the ZTV with relevant consultation bodies.	The 50 km SLVIA study area was identified to stakeholders in the request for feedback on the representative viewpoints (February 2022). During the SLVIA Workshop in September 2022 (see below) stakeholders were asked to comment on the 50 km SLVIA study area. The Applicant did not receive any specific comments on the extent of the 50 km SLVIA study area, therefore the Applicant intends to use the statutory consultation to agree that the study area for the SLVIA assessment is appropriate.
July 2022	Response to Scoping - Natural England	Requested that the study area for the Morgan Generation Assets extends to a 60 km buffer around the Morgan Generation Assets array area, based on the proposed wind turbine height for the Morgan Offshore wind farm and the elevated viewpoints onshore. Where applicable, once the location of the generation assets has been determined, Natural England should also be consulted to determine representative viewpoints.	Natural England responded at the Morgan Generation Assets scoping stage, on the extent of the study area, and requested a 60 km buffer. The SLVIA has taken the approach, as set out in the Guidelines for Landscape and Visual Impact Assessment: Third Edition (GLVIA3) (Landscape Institute and Institute of Environmental Management and Assessment, 2013) paragraph 1.17 – *'the emphasis is on the identification of likely significant environmental effects'*. It is judged that, due to distance, there is no potential for significant effects beyond 50 km, the study area need not extend any further. The 50 km study area has been confirmed with other national organisations as sufficient to capture potential significant effects, including those from nationally designated mountainous landscapes. A 60 km SLVIA Study Area has been adopted for the assessment of effects on the special qualities of nationally and internationally Designated landscapes.
July 2022	Response to Scoping - Natural England	Natural England would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area,	The baseline landscape and marine character areas are presented within section 10.4 and detailed within Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement. The assessment of visual effects is presented within section 10.8.5

Date	Consultee and type of response	Comment	Response to comment raised and/or where considered in this chapter
		landscape and seascape together with any physical effects of the development, such as changes in topography.	
July 2022	Response to Scoping - Natural England	Natural England supports the publication Guidelines for Landscape and Visual Impact Assessment, produced by the Landscape Institute and the Institute of Environmental Assessment and Management in 2013 (3rd edition). The methodology set out is almost universally used for landscape and visual impact assessment. For National Parks and NLs, we advise that the assessment also includes effects on the 'special qualities' of the designated landscape, as set out in the statutory management plan for the area. These identify the particular landscape and related characteristics which underpin the natural beauty of the area and its designation status.	This SLVIA has considered the effects on the special qualities of nationally and internationally designated landscapes and this is documented in Volume 4, Annex 10.5: International and nationally designated landscape study.
July 2022	Response to Scoping - Natural England	The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.	Noted. The cumulative effects assessment is presented within section 10.9. This considers relevant existing and proposed developments in line with published guidance including DTI (2005), GLVIA3, NatureScot (2021) and Planning Inspectorate Advice Note Seventeen; Cumulative effects assessment relevant to nationally significant infrastructure projects (2015).
July 2022	Response to Scoping - Natural England	The assessment should refer to the relevant National Character Areas which can be found on our website. Links for Landscape/Seascape Character Assessment at a local level are also available on the same page. https://data.gov.uk/dataset/3fed3362-2279-4645-8aaf-c6b431c94485/mmo1037-marine-character- areas. gov.uk/government/publications/seascape-assessments-for-north-east-north-west- south-east-south-west-marine-plan-areas-mmo1134	Noted. These are referred to within the assessment and detailed within Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement.

Date	Consultee and type of response	Comment	Response to comment raised and/or where considered in this chapter
July 2022	Response to Scoping - Natural England	Alongside national policy you should also apply landscape policies set out in your development plan, or appropriate saved policies.	Noted. All relevant policies are presented within section 10.2 and detailed within Volume 4, Annex 10.1: Seascape, landscape and visual resources legislation and planning policy context of the Environmental Statement.
July 2022	Response to Scoping - Natural England	Where available, a local Landscape Character Assessment can also be a helpful guide to the landscape's sensitivity to this type of development and its capacity to accommodate the proposed development.	Noted. The Isle of Man Landscape Character Assessment has been used to inform the assessment of effects on seascape, landscape and visual resources and receptors. The 50 km SLVIA study area includes part of north west England, at this distance the local landscape character areas will not be significantly affected and so National Character Areas were used. The special qualities of the Lake District National Park and the potential impacts on the themes and criteria of the English Lake District WHS have also been assessed in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.
November 2022	Morgan Generation Assets SLVIA Workshop RPS invited the following statutory consultees to an online SLVIA workshop to consult on two wind turbine array layout options: • Natural England* • Isle of Man Government • Lake District National Park Authority (remit includes The English Lake	Requested feedback on which of the two layout options presented (by means of wireline visualisations from four key viewpoints) were likely to give rise to worst case seascape, landscape and visual impacts taking existing operational wind farms and future cumulative schemes into account.	The Applicant did not receive any specific comments on the extent of the SLVIA study area, therefore the Applicant has applied the statutory consultation to establish that the study area for the SLVIA assessment is appropriate. Stakeholders did not respond on the worst case scenarios during the meeting. The Applicant provided a follow-up slide pack to stakeholders. No specific comments had been received from stakeholders and the Applicant intends to use the scenario with the tallest wind turbine. The effects of the tallest turbines on both seascape landscape character and views and visual amenity are assessed in section 10.8. The baseline photography and full descriptions of the existing views and those receptors that might experience the views are set out in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Date	Consultee and type of response	Comment	Response to comment raised and/or where considered in this chapter
	District World Heritage Site) * • Barrow in Furness Borough Council* • Fylde Borough Council* • Chorley Council* • West Lancashire Council • Preston City Council • Sefton Council * stakeholder invited but no representatives attended.		
Section 42 consultation responses			
June 2023	Isle of Man Department of Infrastructure	Agrees that the PEIR SLVIA has been undertaken in accordance with accepted industry guidance albeit there may be points of detail that may merit further scrutiny/debate. The findings are concurred with. They are all based on worst case scenarios.	The assesment in Section 10.8 is undertaken in line with guidance and the methodology presented in section 10.5 and considered the worst case scenario.
June 2023	Natural England	The baseline photography and visualisations should be revised to ensure that they conform to industry standards.	The baseline photography and photomontages have been revised and conform to industry standards. These are presented in Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement.
June 2023	Natural England	Recommends that the SLVIA is conducted using a 60 km study area.	A 60 km radius study area is adopted specifically for the assessment of effects on Nationally / Internationally designated

Date	Consultee and type of response	Comment	Response to comment raised and/or where considered in this chapter
		Industry standard photomontages, as well single frame images, for viewpoints located at Black Combe, Whit Fell, Muncaster Fell, and Whin Rigg, all of which are within the boundary of the Lake District National Park.	landscapes (the Lake District National Park) presented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement. The purpose of this extended study area was to demonstrate that there would be no significant effects on the special qualities of nationally and internationally designated landscapes. The extended study area also provides for the additional viewpoints requested through the consultation process which suppport the assessment of effects on the special qualities of these landscapes. Photomontages from the specified locations have been prepared from Black Combe, Whit Fell, Muncaster Fell and Whin Rigg and are presented in Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement.
June 2023	Natural England	Natural England disagrees with the 50 km study area used for the SLVIA. Due to the larger size of the turbines for Round 4 projects compared to earlier OWFs (in this case WTGs up to 324 m to blade tip) we advise that the project should be using a 60 km study area to ensure that impacts to designated landscapes can be fully considered.	A 60 km study area has been adopted for the assessment of effects on the Lake District National Park. This is documented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.
June 2023	Natural Resources Wales	With respect to Seascape/Landscape planning, NRW (A) believe there will be no significant effects to any Welsh designated landscapes, and have no further comments at this stage regarding the proposals or Seascape Landscape Visual Impacts Assessments, however if the proposals materially change between the PEIR and ES, NRW (A) advise that a review of the potential impacts to Welsh designated landscapes may be necessary and we will review our position accordingly.	This position is noted and reflected in the SLVIA in the Environmental Statement. The proposed Morgan Generation Assets has not materially changed in terms of the distance to the only Welsh Designated landscapes within the 60 km SLVIA study area, that being the Isle of Anglesey National Landscape. This is located almost 60 km distance from Morgan Generation Assets as reported in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.
June 2023	Isle of Anglesey Council	The assessment confirms that the proposed Morgan Array Area is located approximately 60 km from the nearest part of the Anglesey coast and it is not considered likely that there would be significant seascape, landscape or visual direct or cumulative impacts felt by receptors on or in the vicinity of Anglesey. The Council agrees with this conclusion.	This position is noted and confirmed in the SLVIA in the Environmental Statement. The assessment concludes that there will be no significant effects on the special qualities of the Isle of Anglesey National Landscape due to its distance to the Morgan Array at almost 60 km. Refer to Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.

10.4 Baseline environment

10.4.1 Methodology to inform baseline

10.4.1.1 This section provides the seascape, landscape and visual resources baseline of the Morgan Generation Assets, the separate aspects of which are described in detail in the following separate technical reports:

- Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement
- Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

10.4.1.2 In summary, the seascape, landscape, and visual baseline environments were assessed by means of desk study and fieldwork, informed by consultation with the relevant authorities and stakeholders. This process, the activities involved, and the consultees engaged, are recorded in this section by providing information regarding:

- Baseline studies and surveys undertaken in relation to the Morgan Generation Assets
- Any difficulties (e.g. technical deficiencies or limitations in available data) encountered in compiling the required information
- Agreement on methodology reached through consultations or otherwise, including where deviations from standard methods had been agreed.

10.4.1.3 A record and summary description of these desk study and fieldwork activities is provided in Volume 4, Annex 10.2: Seascape and landscape character baseline technical report and Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

10.4.2 Study area

10.4.2.1 The SLVIA study area for the Morgan Generation Assets is a 50 km radius from the Morgan Array Area and is illustrated in Figure A.2.

10.4.2.2 The above 50 km SLVIA study area extent is formulated in accordance with relevant best practice guidance, in particular Guidelines for Landscape and Visual Impact Assessment: Third Edition, 2013, Landscape Institute and Institute of Environmental Management and Assessment (GLVIA3). The study area has been discussed with the relevant authorities/consultees where possible (see Table 10.7). The SLVIA has taken the approach, as set out in the Guidelines for Landscape and Visual Impact Assessment: Third Edition (GLVIA3) (Landscape Institute and Institute of Environmental Management and Assessment, 2013) paragraph 1.17 – ‘the emphasis is on the identification of likely significant environmental effects’.

10.4.2.3 The buffer used to define the 50 km SLVIA study area are based on the Maximum Design Scenario (MDS) set out in Section 10.6.1.

10.4.2.4 A 60 km study area from the Morgan Array Area is also identified solely for the purpose of assessing effects on nationally and internationally designated landscapes. This assessment is documented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.

10.4.3 Desktop study

10.4.3.1 Information on the seascape, landscape and visual baseline environment within the 50 km SLVIA study area was collected through a detailed desktop review of existing studies and datasets. These are summarised in Table 10.8 below.

Table 10.8: Summary of key desktop reports.

Title	Source	Year	Author
National Character Area Profile	Natural England https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making/national-character-area-profiles	Various (2012 to 2014)	Natural England
An assessment of the sensitivity and capacity of the Scottish seascape in relation to windfarms SNH Commissioned Report No. 103	Scottish Natural Heritage	2005	Scott, K.E., Anderson, C., Dunsford, H., Benson, J.F. and MacFarlane, R.
Marine Plan Areas in England	Marine Management Organisation	2014	Marine Management Organisation
National Seascape Assessment for Wales: NRW Evidence Report No. 80	Natural Resources Wales	2015	Land Use Consultants
Seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance – Stage 3, Report No. 331	Natural Resources Wales	2019	White, S. Michaels, S. King, H.
Isle of Man Landscape Character Assessment	Isle of Man Government	2008	Chris Blandford Associates
Seascape Character Assessment for the North West Inshore and North West Offshore Marine Plan Areas	Marine Management Organisation	2018	Land Use Consultants

10.4.4 Identification of designated sites

10.4.4.1 All internationally and nationally designated landscape areas within the wider 60 km SLVIA study area that could be affected by the construction, operations and maintenance and maintenance, and decommissioning phases of the Morgan Generation Assets were identified and considered for assessment. Further detail on this is documented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.

10.4.5 Site specific surveys

10.4.5.1 To inform the Environmental Statement, site-specific surveys were undertaken in relation to the photography and assessment of the representative viewpoints agreed with statutory consultees (Table 10.7). In addition, extensive fieldwork was carried out during preparation of the SLVIA to support the seascape, landscape and visual resources baseline and impact assessments. Further detail is provided in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

10.4.6 Seascape, landscape and visual baseline

10.4.6.1 The SLVIA baseline environment comprises two distinct but connected aspects, described in the following separate technical reports:

- Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement. This presents the seascape and landscape character baseline, including special qualities of nationally designated landscapes
- Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement. This presents the visual baseline for the SLVIA assessment

10.4.6.2 Summaries of the baseline seascape/landscape and visual environments of the 50 km SLVIA study area are provided below. This section should be read in conjunction with the above technical reports.

10.4.7 Seascape and landscape character baseline

10.4.7.1 With respect to the MDS, national landscape character areas, national marine character areas and seascape sensitivity zones within the 50 km SLVIA study area with the potential to be affected by the Morgan Generation Assets have been identified.

10.4.7.2 The seascape/landscape characteristics with potential to be affected have been identified and described in Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement. Extracts of published assessments reproduced in this appendix provide further detail on seascape/marine and landscape characteristics for relevant character areas.

10.4.7.3 Where no published seascape character assessment coverage is available for the 50 km SLVIA study area, as is the case with some areas of the Isle of Man's territorial waters, appropriate marine character areas defined and described by RPS, in accordance with relevant best practice guidance, are included in the baseline assessment.

10.4.7.4 Character areas within the SLVIA study with little or no overlap with the ZTV of Morgan Generation Assets and/or which are likely to experience negligible or no change due to Morgan Generation Assets MDS, have been scoped out of the assessment.

10.4.7.5 Table 10.9 below lists the seascape and landscape character areas scoped into the SLVIA.

Table 10.9: Seascape/landscape character areas assessed in the SLVIA.

Character area ref.	Title	Administrative Level	Jurisdiction	Source
English Seascape/Marine Character Areas (MCAs)				
MCA 31	St Bees to Haverigg Coastal Waters	National	England	North West Inshore and North West Offshore Marine Plan (MMO, 2021).
MCA 32	Walney Coastal Waters and Duddon Estuary	National	England	
MCA 33	Morecambe Bay	National	England	
MCA 34	Blackpool Coastal Waters and Ribble Estuary	National	England	
MCA 35	Inner Liverpool Bay	National	England	

Character area ref.	Title	Administrative Level	Jurisdiction	Source
MCA 37	Irish Sea North (England)	National	England	
MCA 38	Irish Sea South (England)	National	England	
Isle of Man Seascape/Marine Character Areas (MCAs) (RPS defined)				
MCA A	Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters	National/Local	Isle of Man	Environmental Statement Volume 4, Annex 10.2: Seascape and landscape character baseline technical report.
MCA B	Maughold Head to Point of Ayre, Isle of Man Northeast Inshore Waters	National/Local	Isle of Man	
MCA C	Point of Ayre to Contrary Head, Isle of Man Northwest Inshore Waters	National/Local	Isle of Man	
MCA D	Contrary Head to Bradda Head, Isle of Man West	National/Local	Isle of Man	
MCA E	Bradda Head to Dreswick Point, Isle of Man Southwest Inshore Waters	National/Local	Isle of Man	
Wales Seascape Sensitivity Zones (SSZs)				
SSZ No. 1	North East Wales Inshore	National	Wales – Conwy/Denbighshire/ Flintshire	Seascape and visual sensitivity to offshore wind farms in Wales, strategic assessment and guidance: Stage 3 – Seascape and visual sensitivity assessment for offshore wind farms (White Consultants (for NRW, 2020).
SSZ No. 2	North East Wales Offshore	National	Wales	
SSZ No. 3	North Wales and North Anglesey Inshore	National	Wales – Anglesey/Conwy	
SSZ No. 4	North Wales and North Anglesey Offshore	National	Wales	
SSZ No. 5	North Wales and Anglesey Outer Offshore	National	Wales	
England National Character Areas (NCAs)				
National Character Area 7	West Cumbria Coastal Plain	National	England – Lancashire	National Character Area Profiles (Natural England, 2014).
NCA 8	Cumbria High Fells	National	England – Lancashire	
NCA 19	South Cumbria Low Fells	National	England – Lancashire	
NCA 20	Morecombe Bay Limestones	National	England – Lancashire	
NCA 32	Lancashire and Amounderness	National	England – Lancashire	

Character area ref.	Title	Administrative Level	Jurisdiction	Source
Isle of Man Landscape Character Types (LCTs)				
Local Character Type A	Uplands	National/Local	Isle of Man	Isle of Man Landscape Character Assessment (Chris Blandford Associates, for the Isle of Man Government, 2008)
LCT B	Narrow Upland Glens	National/Local	Isle of Man	
LCT C	Broad Valley Lowland	National/Local	Isle of Man	
LCT D	Incised Inland Slopes	National/Local	Isle of Man	
LCT E	Rugged Coast	National/Local	Isle of Man	
LCT F	Undulating Lowland Plain	National/Local	Isle of Man	
LCT G	Smooth Coastal Strip	National/Local	Isle of Man	
LCT H	Coastal Cliffs	National/Local	Isle of Man	
LCT J	Islands	National/Local	Isle of Man	
LCT U	Urban	National/Local	Isle of Man	

10.4.7.6 Regarding seasonal and medium to long-term temporal landscape/seascape character change, these issues are intrinsic to SLVIA and are considered as part of both the baseline and the impact assessment stages. A summary of the issues involved follows:

- Seasonal temporal change: seasonal variations in vegetation cover, colour and texture alter the character of landscapes, particularly the difference between winter and summer deciduous vegetation. Diurnal and seasonal variations in tidal regimes and sea state, in particular the intertidal zone. Also, diurnal, and seasonal variations in weather and natural lighting
- Medium and long-term temporal change: landscape and seascape character inevitably change over time (i.e. years/decades). Change may result in new landscape patterns, or reversion to former ones. For example: deforestation, afforestation, urbanisation, land/farm management, farming techniques, natural resource exploitation (onshore and offshore), government legislation/policy/funding (e.g. agriculture and forestry/woodland grants), planning and environmental policy (e.g. landscape designations), and other land use initiatives (e.g. rewilding).

10.4.8 Visual Baseline

10.4.8.1 The visual baseline involved a desktop exercise and consultation process to identify appropriate visual receptors and representative viewpoints within the 50 km SLVIA study area and falling within the ZTV of the Morgan Generation Assets.

10.4.8.2 Following the statutory consultation process, 23 representative viewpoint locations were identified, 17 of which lie within the 50 km SLVIA study area. Six viewpoints lie within the 50 to 60 km distance range including a viewpoint from the top of Blackpool Tower which was requested through the consultation process and four viewpoints within nationally and internationally designated landscapes.

10.4.8.3 This extended SLVIA study area of 50 to 60 km was identified largely for the purpose of capturing potential effects on the special qualities of national and internationally designated landscapes documented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.

10.4.8.4 The following sensitive visual receptor groups were considered in the SLVIA:

- National trails (e.g. Millennium Way, Isle of Man and England Coast Path)
- Access land/open country (or public access equivalent)
- National Cycle Routes (NCR)
- Key coastal settlement seafront/shoreline (e.g. Douglas promenade and Blackpool promenade/piers)
- Key coastal roads (e.g. A2, Isle of Man)
- Key coastal railways (e.g. Snaefell Mountain Railway, Isle of Man)
- Key ferry route (e.g. Liverpool to Douglas).

10.4.8.5 Table 10.10 presents the list of agreed representative viewpoints and corresponding sensitive visual receptors. Baseline photographs from these viewpoints can be found in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement. The photomontages and wirelines are illustrated in Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement.

Table 10.10: Candidate representative viewpoints included in the SLVIA.

Representative viewpoint reference	Location	Receptor type	Receptor category
Representative viewpoint 14	Cistercian Way, Walney Island, Cumbria	Walkers using Cistercian Way	Long distance path
Representative viewpoint 15	Blackpool North Pier, Lancashire	Visitors to public pier	Settlement seafront
Representative viewpoint 16	England Coast Path, Lake District National Park	Walkers using Cumbria Coastal Way/England Coast Path	Long distance path
Representative viewpoint 17	Buck Barrow, Lake District National Park	Walkers using Access Land	Access land (or public access equivalent)
Representative viewpoint 18	Herring Tower trig point, Langness Peninsula, Isle of Man	Walkers on Public rights of way (ProW) at local landmark	Access land (or public access equivalent)
Representative viewpoint 19	Panoramic viewpoint at arch southwest of Douglas Head, Isle of Man	Visitors to the binocular viewpoint, walkers and vehicle users. People using the Raad ny Foillan Coastal Path.	Access land (or public access equivalent)
Representative viewpoint 20	Snaefell, summit station trig point, Isle of Man	Walkers on ProW at local landmark	Access land (or public access equivalent)
Representative viewpoint 21	Liverpool to Dublin (Ireland) Ferry	Passengers on ferry	Key ferry route (public transport)
Representative viewpoint 22	Liverpool to Douglas (Isle of Man) Ferry	Passengers on ferry	Key ferry route (public transport)
Representative viewpoint 23	Heysham to Douglas (Isle of Man) Ferry	Passengers on ferry	Key ferry route (public transport)

Representative viewpoint reference	Location	Receptor type	Receptor category
Representative viewpoint 42	Maughold Head Lighthouse, Isle of Man	Walkers at Maughold Head fort monument. People using the Raad ny Foillan Coastal Path.	Access land (or public access equivalent)
Representative viewpoint 43	Old Laxey, Isle of Man	Walkers using pavement at entrance to the beach. People using the Raad ny Foillan Coastal Path.	Settlement seafront
Representative viewpoint 44	Slieau Ruycairn, Isle of Man	Walkers at cairn/trig point	Access land (or public access equivalent)
Representative viewpoint 45	South Barrule cairn, Isle of Man	Walkers at cairn/trig point	Access land (or public access equivalent)
Representative viewpoint 46	Port St. Mary, Isle of Man	Walkers on the heritage trail and at the memorial. People using the Raad ny Foillan Coastal Path.	Settlement seafront
Representative viewpoint 49	Douglas Promenade, Isle of Man	Visitors using promenade/seafront. People using the Raad ny Foillan Coastal Path.	Settlement seafront
Representative viewpoint 50	Coast path at the Chasms/Sugarloaf, Isle of Man	Walkers using the Raad Ny Foillan Coastal Path	Long distance path
Representative viewpoint 51	Blackpool Tower	Visitors to Blackpool	Settlement seafront
Representative viewpoint 55	Trwyn Eilian (Point Lynas), Isle of Anglesey NL	Walkers using Wales Coast Path, NL	Long distance path
Representative viewpoint 58	Muncaster Fell, Lake District National Park	Visitors / Walkers in the Lake District National Park	National Park
Representative viewpoint 59	Black Combe, Lake District National Park	Visitors / Walkers in the Lake District National Park	National Park
Representative viewpoint 60	Whit Fell, Lake District National Park	Visitors / Walkers in the Lake District National Park	National Park
Representative viewpoint 61	Whin Rigg, Lake District National Park	Visitors / Walkers in the Lake District National Park	National Park

10.4.8.6 Regarding seasonal and medium to long-term temporal visual change and the SLVIA, the issues are broadly the same as those presented above for seascape/landscape character. The following details are also considered:

- Seasonal temporal change: the difference between winter and summer deciduous vegetation cover is a key factor to consider when assessing the potential impact of development on views and visual amenity. Diurnal and seasonal variations in weather, light intensity, natural lighting, and visibility also influence views and visual amenity. Visibility is recorded by the Meteorological Office – historic 'viewing distance' data for the 50 km SLVIA study area in Appendix B of Volume 4, Annex 10.4: Seascape, landscape and visual resources impact assessment methodology of the Environmental Statement. Appendix B sets out Meteorological Office data

relevant to the Morgan Array Area. Visibility is given for increasing distances for every month of the year for the last 10 years. The distances given in the assessment of the Morgan Generation Assets relate to these tables and the Meteorological Office, definitions:

- Very Poor – visibility less than 1 km metres
- Poor – visibility between 1 km to 4 km
- Moderate – visibility between 4 km and 10 km
- Good – visibility between 10 km to 20 km
- Very Good – visibility between 20 km and 40 km
- Excellent – visibility over 40 km

- Medium and long-term temporal change: the forces driving longer-term landscape/seascape character change (i.e. years/decades) described previously also influence views and visual amenity.

10.4.9 Designated sites

10.4.9.1 Internationally and nationally designated landscapes are identified for inclusion in the SLVIA. Effects on the special qualities of these are documented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.

10.4.10 Future baseline scenario

10.4.10.1 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires that '*an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge'* is included within the Environmental Statement. If Morgan Generation Assets does not come forward, an assessment of the future baseline conditions has been carried out and is described within this section.

10.4.10.2 Landscape and adjacent seascapes are constantly evolving; evolution is an intrinsic attribute of landscapes, which are in constant flux. The forces driving landscape/seascape change are both human and natural, predominantly the former within the 50 km SLVIA study area. Building and infrastructure development, intensive agriculture and minerals exploitation is changing the character of both urban and rural landscapes. Climate change driven by human activity has the potential to alter vegetation patterns and landscape character in the longer term, although to what extent and over what timeframe is a matter of conjecture.

10.4.10.3 Predicted changes in the climate relating to the 50 km SLVIA study area, include those resulting from extreme weather events of heat, cold, rainfall, drought, and wind. It is predicted that mean temperatures will increase, winter precipitation will increase and summer precipitation will decrease. Overall, the frequency of hot days, dry spells and heavy rainfall is predicted to increase. Climate change impacts are considered in Volume 2, Chapter 12: Climate change of the Environmental Statement.

10.4.10.4 The current landscape and seascape character baseline situation is described in Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement. The climate change predictions recorded in Volume 2, Chapter 12: Climate change of the Environmental Statement are unlikely to be sufficient to lead to an appreciable change in the baseline vegetation and character

within the 50 km SLVIA study area. The underlying landscape and seascape characteristics are therefore judged to remain broadly constant. Consequently, excluding building/infrastructure development, the future landscape and seascape character baseline, and the related visual baseline, would be essentially the same as the current baseline situation summarised above in this SLVIA and presented in more detail in Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement.

10.4.10.5 The cumulative effects assessment section of the SLVIA below identifies the relevant planned development for the 50 km SLVIA study area for the immediate future, the focus being on offshore infrastructure. The current development pipeline in the Northern Wales and Irish Sea Round 4 area is likely to lead to an increase in offshore wind development within the 50 km SLVIA study area in the future.

10.4.11 Data limitations

10.4.11.1 The SLVIA assumptions and limitations are set out in Volume 4, Annex 10.4: Seascape, landscape and visual resources impact assessment methodology of the Environmental Statement.

10.4.11.2 Regarding the approach taken in the SLVIA to the assessment of the different development phases of Morgan Generation Assets, the following assumption/limitation should be noted. For developments of this type and scale, seascape, landscape, and visual impacts arising will increase in magnitude on a continuum from the start of construction through to completion of works and commencement of operations and maintenance in the short term, remaining fairly constant during operations and maintenance in the long term. The decommissioning phase is effectively the construction process in reverse (also short-term in duration). In addition, during the latter stages of construction and early stages of decommissioning, the Morgan Generation Assets will give rise to similar levels of seascape, landscape, and visual change as during the operations and maintenance phase (the difference being the absence of rotor/blade movement). Consequently, in this SLVIA, for each seascape, landscape and visual receptor, construction and decommissioning effects are dealt with together, recorded separately from the operational effects.

10.4.11.3 Consultations with key consultees (see Table 10.7 above) regarding the preferred scheme and the representative viewpoints for Morgan Generation Assets have been undertaken to inform this assessment for the Environmental Statement.

10.4.11.4 Baseline photography for photomontages presented as part of the SLVIA comes with an inherent limitation in regard to photographs depicting the sea, the surface of which is constantly changing. This can result in slight inconsistencies in the depiction of the sea and horizon in the panorama.

10.5 Impact assessment methodology

10.5.1 Overview

10.5.1.1 The SLVIA has followed the methodology set out in Volume 1, Chapter 5: EIA methodology of the Environmental Statement, a summary of which is reproduced below in this section.

10.5.1.2 Specific to the SLVIA, the following guidance document is the key consideration:

- Guidelines for Landscape and Visual Impact Assessment: Third Edition, 2013, Landscape Institute and Institute of Environmental Management and Assessment (GLVIA3).

10.5.1.3 In addition, the SLVIA has considered the relevant legislative and policy framework as identified above in Section 10.2 above.

10.5.1.4 A detailed SLVIA methodology based on GLVIA3 is provided in Volume 4, Annex 10.4: Seascape, landscape and visual resources impact assessment methodology of the Environmental Statement. For the purposes of this SLVIA, the standard criteria wording has been refined to accord with GLVIA3 best practice guidelines. That said, it should be noted that the SLVIA methodology employs the same terminology as that set out Volume 1, Chapter 5: EIA methodology of the Environmental Statement, as reproduced below.

10.5.2 Impact assessment criteria

10.5.2.1 The criteria for determining the significance of effects is a two-stage process that involves defining the magnitude of the impacts and the sensitivity of the receptors. This section describes the criteria applied in this chapter to assign values to the magnitude of potential impacts and the sensitivity of the receptors. The terms used to define magnitude and sensitivity are based on those which are described in further detail in Volume 4, Annex 10.4: Seascape, landscape and visual impact assessment methodology of the Environmental Statement.

Magnitude

10.5.2.2 The criteria for defining magnitude of impact in this chapter is derived from three factors including size or scale of change, geographical extent and duration and reversibility. The approach to evaluating overall magnitude of change involves two main steps. Firstly, the key factors of scale of change and geographical extent are evaluated and combined to provide an initial evaluation. The results of the first step are then combined with the evaluation of duration and reversibility. Definitions are outlined in Table 10.11 and Table 10.12 below.

Table 10.11: Visual Magnitude of Impact Criteria.

Magnitude of Impact	Definition
Large	Complete or very substantial visual change involving complete or very substantial obstruction of existing view or complete change in character and composition of visual baseline (e.g. pre-development view) e.g. through removal of key elements.
Medium	Moderate visual change, which may involve partial obstruction of existing view or partial change in character and composition of visual baseline (i.e. pre- development view) through the introduction of new elements or removal of existing elements. Change may be prominent but would not substantially alter the scale and character of the surroundings and the wider setting. Composition of views would alter. View character may be partially changed through the introduction of features which, although uncharacteristic, may not necessarily be visually discordant.
Small	Minor change to the visual baseline (e.g. pre-development view) – change would be distinguishable from the surroundings whilst view composition and character would be similar to the pre- change circumstances.
Negligible	Very slight change in visual baseline (e.g pre- development view) – change barely distinguishable from the surroundings. Composition and character of view substantially unaltered.

Table 10.12: Definition of terms relating to the magnitude of impact upon seascape and landscape receptors.

Magnitude of Impact	Definition
Large	Total loss, or/very substantial loss or addition of key elements/features/patterns of the baseline (e.g. pre-development seascape/landscape) and/or introduction of dominant, uncharacteristic elements compared to the attributes of the receiving seascape/landscape.
Medium	Partial loss or addition of, or moderate alteration to, one or more key elements/features/patterns of the baseline (e.g pre-development seascape/landscape) and/or introduction of elements that may be prominent but would not be substantially uncharacteristic in comparison to the attributes of the receiving seascape/landscape.
Small	Minor loss or addition of, or alteration to, one or more key elements/features/patterns of the baseline, e.g. pre-development seascape/landscape and/or introduction of elements that may not be uncharacteristic compared to the surrounding seascape/landscape.
Negligible	Very minor loss or addition of, or alteration to, one or more key elements/features /patterns of the baseline (e.g pre-development seascape/landscape) and/or introduction of elements that are not uncharacteristic in comparison to the surrounding seascape/landscape; approximating to a 'no-change' situation.

10.5.2.3 Where the magnitude of impact is judged to fall in between the above categories it is expressed as negligible to low, low to medium or medium to high.

Sensitivity

10.5.2.4 The criteria for defining sensitivity in this chapter are outlined in Table 10.13 and Table 10.14 below. Note that, in SLVIA, the sensitivity of seascape/landscape and visual receptors is determined by an assessment of two separate factors: the value of the receptor; and the receptor's susceptibility to the development proposed.

Table 10.13: Definition of terms relating to the sensitivity of visual receptors.

Sensitivity	Typical descriptors	
	Visual receptor susceptibility	**Value of view**
Very High	Might be visitors to an internationally or nationally designated landscape or recognised visitor attraction where views to and from the designated landscape or visitor destination are integral to the quality visual amenity experienced at that location.	International may include important views from internationally designated landscapes or views noted in national guidebooks as visitor attractions.
High	Might be visitors to a nationally designated landscape or recognised visitor destination or route where views to and from the designated landscape or attraction are integral to the visual amenity experienced at that location. People engaged in outdoor recreation using public rights of way or Access Land in nationally designated landscapes. Users of a national trails or other tourist routes may also be of high susceptibility although susceptibility to change can vary along a route depending on the nature of the locality through which the route passes.	National may include important views from nationally designated landscapes or views noted in national guidebooks and maps. May also include views from national trails, cycle routes and views identified in citations of registered parks and gardens or views important to the understanding of a cultural heritage asset.

Sensitivity	Typical descriptors	
	Visual receptor susceptibility	**Value of view**
Medium	Might include those people whose attention or interest is focussed on their surroundings to a degree but is not integral to the activity being pursued. This may include transitory views from local roads or public transport including ferries.	Regional may include views identified in Conservation Area Appraisals, views from regionally important landscapes, such as Special Landscape Areas, or Areas of Great Landscape Value, promoted paths/regional trails and views noted in landscape character assessments.
Low	Might include those people whose attention or interest is not immediately focussed on their surroundings and may include people using rapid transport routes such as major road and rail links. It may also include people at their place of work where their surroundings are not integral to the work being undertaken.	Community may include views that are not recognised through a designation and are undocumented. The views may be valued locally, e.g. through Neighbourhood Plans, although not of importance in the wider area.
Negligible	Might include those people whose attention or interest is not focussed on their surroundings or whose immediate surroundings truncate views.	Views that are not noted in any documentation and are simply those gained as people go about their day-to-day activities.

Table 10.14: Definition of terms relating to the sensitivity of landscape and seascape receptors.

Sensitivity	Typical Descriptors	
	Seascape/Landscape Resource/Receptor Susceptibility	**Seascape/Landscape Resource/Receptor Value**
Very High	Exceptional seascape/landscape quality; absence of seascape/landscape detractors; no or limited potential for substitution. Key elements/features well known to the wider public	Nationally/internationally designated seascape/landscape, or key elements or features of nationally/internationally designated seascape/landscape.
High	Strong/distinctive seascape/landscape character; relatively free of seascape/landscape detractors	Regionally/nationally designated seascape/landscape areas or features.
Medium	Some distinctive seascape/landscape characteristics; presence of seascape/landscape detractors	Locally/regionally designated/valued seascape/landscape and features, e.g. Special Landscape Areas (SLA) or Areas of Great Landscape Value (AGLV).
Low	Absence of distinctive seascape/landscape characteristics; unavoidable presence of seascape/landscape detractors	Undesignated seascape/landscape and features.
Negligible	Absence of positive seascape/landscape characteristics. Significant presence of seascape/landscape detractors	Undesignated seascape/landscape and features.

10.5.2.5 Where the sensitivity of a particular receptor is judged to be in between the above categories, or it varies with location it is expressed as low to medium, medium to high or high to very high.

Significance of effect

10.5.2.6 Significance of the effect upon seascape, landscape and visual receptors is determined by correlating the magnitude of the impact and the sensitivity of the receptor as presented in Table 10.15.

10.5.2.7 For the purposes of this assessment, any effects with a significance level of substantial or major have been deemed significant in terms of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. In general, any effects with a significance level of moderate or less have been judged as not significant. An accumulation of individual moderate effects, for instance those experienced during a journey undertaken by the same visual receptor, may also be judged as significant in some circumstances.

10.5.2.8 Effects are assessed as being adverse, neutral, or positive. The judgements regarding the significance of effect and that relating to whether an effect is beneficial or adverse are entirely separate. The assessment of whether an effect is positive, neutral or adverse is based on professional judgement having regard to the relevant objective factors.

Table 10.15: Matrix used for the assessment of the significance of the effect.

Sensitivity of Receptor	Magnitude of Impact			
	Negligible	**Small**	**Medium**	**Large**
Negligible	Negligible	Negligible to Minor	Negligible to Minor	Negligible to Minor
Low	Negligible to Minor	Negligible to Minor	Minor	Minor to Moderate
Medium	Negligible to Minor	Minor	Moderate	Moderate to Major
High	Negligible to Minor	Minor to Moderate	Moderate to Major	Major
Very High	Minor	Moderate to Major	Major	Substantial

10.5.2.9 Table 10.16 provides definitions for significance of effect levels recorded in the SLVIA.

Table 10.16: Definitions of significance criteria.

Level of Significance	Typical Descriptors	
	Seascape/Landscape Resource	**Visual Resource**
Substantial	Where proposed changes would be uncharacteristic and/or would significantly alter a landscape of exceptional landscape quality (e.g. internationally designated landscapes), or key elements known to the wider public of nationally designated seascape/landscapes (where there is no or limited potential for substitution nationally).	Where proposed changes would be uncharacteristic and/or would significantly alter a view of remarkable scenic quality, within internationally designated landscapes or key features or elements of nationally designated seascapes/landscapes that are well known to the wider public.
Major	Where proposed changes would be uncharacteristic and/or would significantly alter a valued aspect of (or a high quality) seascape/landscape.	Where proposed changes would be uncharacteristic and/or would significantly alter a valued view or a view of high scenic quality.
Moderate	Where proposed changes would be demonstrably out of scale or at variance with the character of an area.	Where proposed changes to views would be demonstrably out of scale or at variance with the existing view.

Level of Significance	Typical Descriptors	
Minor	Where proposed changes would be at slight variance with the character of an area.	Where proposed changes to views, although discernible, would only be at slight variance with the existing view.
Negligible	Where proposed changes would have an indiscernible effect on the character of an area.	Where proposed changes would have a barely noticeable effect on views/visual amenity.

10.5.3 Designated sites

10.5.3.1 Designated areas of landscape/seascape identified for the inclusion in the seascape, landscape and visual resources chapter are documented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.

10.6 Key parameters for assessment

10.6.1 Maximum Design Scenario (MDS)

10.6.1.1 The MDSs identified in Table 10.17 have been selected as those having the potential to result in the greatest effect on an identified receptor or receptor group. These scenarios have been selected from the Project Design Envelope provided in Volume 1, Chapter 3: Project description of the Environmental Statement. Effects of greater adverse significance are not judged to arise should any other development scenario, based on details within the Project Design Envelope (e.g. different infrastructure layout), to that assessed here be taken forward in the final design scheme.

10.6.1.2 The assessment of potential impacts on seascape, landscape and visual resources is based on the MDS as identified from a design envelope and is specific to the potential impacts identified in this Chapter. The key parameters for the Maximum Design Scenario (MDS) include consideration of 68 wind turbines with a maximum turbine rotor diameter of 320 m and the maximum blade tip height of 364 m above LAT have been identified as resulting in the MDS for this assessment, as the tallest turbines would be seen from greater distances.

Table 10.17: Maximum Design Scenario considered for the assessment of potential impacts on seascape, landscape and visual resources.

[a] C=construction, O=operations and maintenance, D=decommissioning

Potential impact	Phase			Maximum Design Scenario	Justification
	C	O	D		
The SLVIA considers the likely impacts of the Morgan Generation Assets on the seascape, landscape and visual resources of the 50 km SLVIA study area resulting from its construction and decommissioning. The receptor groups considered in the SLVIA are those located within the 50 km radius SLVIA study area as follows: Seascape/landscape receptors: • Seascape/marine character areas • Landscape character areas Visual receptors: • People using national trails/long distance paths • People using access land/open country (or equivalent) • People accessing key coastal settlement seafronts/shorelines • Cyclists using national cycle routes	✓		✓	**Construction and decommissioning phase** The offshore components and activities relating to construction of Morgan Generation Assets considered in the SLVIA are described below. **Construction works/activities** Generally, wind turbines are installed using the following process: • Wind turbine components (blades, nacelles, towers, foundation and transition pieces) are transported to Morgan Array Area by dedicated vessels for 68 wind turbines (dimensions below) • Wind turbine components will be assembled on site and erected on to foundations by an installation vessel (e.g. Jack-Up Vessel (JUV), Dynamic Positioning Vessel (DPV) or heavy lift vessel). The process is assisted by smaller support vessels (e.g. tugs, guard vessels and anchor handling vessels), which tend to shadow the installation vessels. The maximum number of wind turbine installation and support vessels on site during construction of the array area is 69 vessels and 7 helicopters. The number of return trips to the Morgan Array Area from port required throughout installation is up to 1,929 installation vessel movements (return trips) during construction (521 main installation/support vessels, 74 tug/anchor handlers, 56 cable lay installation and support vessels, 50 guard vessels, 31 survey vessels, 19 seabed preparation vessels, 1,135 crew transfer vessels (CTVs), 41 scour protection installation vessels and two cable protection installation vessels and 1095 helicopter movements. **Construction programme/duration** The total duration for wind turbine installation is expected to be a maximum of 18 months (9 months for wind turbine installation and a further 9 months for commissioning).	Greatest extent of the Morgan Generation Assets, with the tallest wind turbines, over the longest duration, therefore the greatest potential for impacts on seascape and landscape areas, including nationally / internationally designated landscapes, as well as visual receptors.

Potential impact	Phase			Maximum Design Scenario	Justification
	C	O	D		
• People travelling along key coastal roads • People using key coastal railway routes • People travelling on key ferry routes • 18 representative viewpoints corresponding to views experienced by people at of the above receptors.					
The SLVIA considers the likely impacts of the Morgan Generation Assets on the seascape, landscape and visual resources of the 50 km SLVIA study area resulting from its operation and maintenance. The receptor groups considered in the SLVIA are those located within the 50 km radius SLVIA study area as follows: Seascape/landscape receptors • Seascape/marine character areas • Landscape character areas Visual receptors • People using national trails/long distance paths		✓		**Operations and maintenance phase** The SLVIA assesses the MDS for Morgan Generation Assets during operations and maintenance comprising the following key upstanding project components and equipment: • 68 wind turbines (dimensions below) • Four Offshore Substation Platforms (dimensions below) • Construction and service vessels/helicopters. The above components are also a consideration during the construction and decommissioning phases. The wind turbines will be attached to the seabed by gravity based and / or jacket foundation structures (the type to be deployed is subject to further investigations). The wind turbine towers are connected to the foundation structure via a transition piece which is visible above sea level. ***Wind turbines*** The wind turbines will be the standard horizontal axis design with three blades connected to the nacelle housing the wind turbine. An illustration of this design can be seen in Volume 1, Chapter 3: Project description of the Environmental Statement. The tallest wind turbines have been used the MDS for the project. The wind turbine MDS dimensions are: • Maximum blade tip height (above Lowest Astronomical Tide) – 364 m • Maximum rotor diameter – 320 m	Greatest extent of the Morgan Offshore Wind Project, with the tallest wind turbines, over the longest duration, therefore the greatest potential for impacts on seascape and landscape areas, including nationally / internationally designated landscapes, as well as visual receptors.

Potential impact	Phase			Maximum Design Scenario	Justification
	C	O	D		
• People using access land/open country (or equivalent) • People accessing key coastal settlement seafronts/shorelines • Cyclists using national cycle routes • People travelling along key coastal roads • People using key coastal railway routes • People travelling on key ferry routes • 18 representative viewpoints corresponding to views experienced by people at of the above receptors. The potential sources of seascape, landscape and visual impacts deriving from the Morgan Generation Assets development components and associated activities are detailed here.				• Maximum hub height (above LAT) – 204 m. Offshore Substations Platforms (OSP) There are four options for the OSPs within the array. The maximum number (four no x 375 MW OSPs) is considered to be the Maximum Design Scenario in terms of seascape, landscape and visual impacts. The dimensions are: • Maximum height of main structure (above LAT) – 55 m • Height of lightning protector (above LAT) – 70 m • Height of helideck (above LAT) – 65 m • Height of crane (above LAT) – 65 m • Height of antenna structure (above LAT) – 75 m • Maximum topside length – 65 m • Maximum topside width – 45 m. ***Vessel movements*** The maximum number of vessels on site at any one time during the operations and maintenance phase is 16 operations and maintenance vessels (five CTVs/workboats, three jack-up vessels, three cable repair vessels, four service operation vessels (SOVs) or similar and one excavator/backhoe dredger) and 7 helicopters. There are predicted to be a maximum of 719 vessel and 639 helicopter return trips per year during the operations and maintenance phase. ***Aids to navigation, colour, marking and lighting*** Appropriate marking, lighting and aids to navigation will be employed during the operations and maintenance phase (and also during construction and decommissioning phases) of Morgan Generation Assets. The nacelles, blades and towers will be painted light grey (RAL 7035) and the foundation structures, up to +15m from Highest Astronomical Tide (HAT), will be traffic light yellow (RAL 1023). Appropriate lighting at night-time will ensure the offshore structures are visible for search and rescue and emergency response procedures. In addition, lighting will conform to the following: • Red, medium intensity aviation warning lights (of variable brightness between 200 to 2,000 candela (cd)) will be located on either side of the nacelle of significant peripheral wind turbines. These lights will flash simultaneously with a Morse W flash pattern (and will also include an infra-red component)	

Potential impact	Phase			Maximum Design Scenario	Justification
	C	O	D		
				• All aviation warning lights will flash synchronously throughout the Morgan Array Area • Aviation warning lights will allow for reduction in lighting intensity at and below the horizon when visibility from every wind turbine is more than 5 km (to a minimum of 10% of the maximum, i.e. 200 cd) • SAR lighting of each of the non-periphery wind turbines will be combi infra-red (IR)/200 cd steady red aviation hazard lights • All wind turbines will be fitted with a low intensity light for the purpose of helicopter winching (green hoist lamp). All wind turbines will also be fitted with suitable illumination (minimum one 5 cd light) for ID signs. Marine navigational lights will be fitted at the platform level on significant peripheral structures (SPS). These lights will be synchronized to display simultaneously an International Association of Lighthouse Authorities “special mark” characteristic, flashing yellow, with a range of not less than 5 nm. **Decommissioning phase** Morgan Generation Assets structures (above sea level) will be completely removed at the end of its operational lifetime. The decommissioning sequence will generally be the reverse of the construction sequence and involve similar types and numbers of vessels and equipment.	

10.7 Measures adopted as part of the Morgan Generation Assets

10.7.1.1 For the purposes of the EIA process, the term 'measures adopted as part of the project' is used to include the following measures (adapted from IEMA, 2016):

- Measures included as part of the project design. These include modifications to the location or design of the Morgan Generation Assets which are integrated into the application for consent. These measures are secured through the consent itself through the description of the development and the parameters secured in the DCO and/or deemed marine licence(s) (referred to as primary mitigation in IEMA, 2016)
- Measures required to meet legislative requirements, or actions that are generally standard practice used to manage commonly occurring environmental effects and are secured in the DCO and/or deemed marine licence(s) (referred to as tertiary mitigation in IEMA, 2016).

10.7.1.2 A number of measures (primary and tertiary) have been adopted as part of the Morgan Generation Assets to reduce the potential for impacts on seascape, landscape and visual amenity. These are outlined in Table 10.18. As there is a commitment to implementing these measures, they are considered inherently part of the design of the Morgan Generation Assets and have therefore been considered in the assessment presented in section 10.8 (i.e. the determination of magnitude and therefore significance assumes implementation of these measures). These measures are considered standard industry practice for this type of development.

Table 10.18: Measures adopted as part of the Morgan Generation Assets.

Measures adopted as part of the Morgan Generation Assets	Justification	How the measure will be secured
The nacelles, blades and towers will be painted light grey.	Light grey (RAL 7035) is considered the optimum colour for offshore wind turbines to minimise adverse effects on seascape, landscape, and visual resources.	Except as otherwise required by Trinity House the undertaker must paint all structures forming part of the authorised project yellow (colour code RAL 1023) from at least HAT to a height as directed by Trinity House. Unless the MMO otherwise directs, the undertaker must paint the remainder of the structures grey (colour code RAL 7035).

10.8 Assessment of significant effects

10.8.1 Overview

10.8.1.1 The impacts of the construction, operations and maintenance, and decommissioning phases of the Morgan Generation Assets have been assessed on seascape, landscape and visual resources. The MDS against which each impact has been assessed arising from the construction, operations and maintenance and decommissioning phases of the Morgan Generation Assets are listed in Table 10.17.

10.8.1.2 In the interests of proportionality, and in line with GLVIA3, the assessment describes potential impacts on receptors which may result in potentially significant effects. The

detailed description of all the potential effects of Morgan Generation Assets on individual seascape, landscape and visual resources and receptors, including the representative viewpoints, is outlined below.

10.8.1.3 With respect to the representative viewpoints listed in Table 10.10, in the interests of proportionality of assessment and to avoid duplication and double recording of effects, these are considered in this section in tandem with the assessment visual receptors they represent, referenced accordingly.

10.8.1.4 Impacts will arise on seascape, landscape and visual resources during construction, operations and maintenance, and decommissioning phases resulting from the following MDS components (as set out in more detail in Table 10.17):

- 68 wind turbines (364 m LAT maximum blade-tip height)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.1.5 The seascape, landscape and visual impacts will be caused by both static and moving elements of the above components which will affect the characteristics and perceptions of the seascape/marine character areas in the 50 km SLVIA study area.

10.8.1.6 Offshore wind energy development, wherever it occurs, is usually visible in some form. The Morgan Generation Assets would have the following general attributes typical of most offshore wind farms: engineered, large scale, simple in form, smooth texture, monochrome/muted colour and strong vertical form. Wind energy development can give rise to a spectrum of responses from individuals and organisations who perceive its effects ranging from strongly adverse to strongly beneficial.

10.8.1.7 The likely significant effects in this assessment are described in type (i.e. direct, indirect, or cumulative), temporal nature (short, medium and long term, permanent or temporary), and valency (beneficial or positive and adverse or negative). Accordingly, judgements as to valency of the effect are presented and justified in an explicit and transparent manner since they are inevitably subjective.

10.8.1.8 For the purposes of this assessment, effects have been defined based on the scenario of an individual who may perceive the array as a negative addition to the seascape or view. Effects are, therefore, defined as adverse throughout the assessment but may in fact be seen as beneficial or positive by large numbers of viewers. An individual who perceives offshore wind farms as a positive addition to the seascape or view may consider the same effects to be beneficial or neutral in nature.

10.8.2 Potential impacts on seascape and marine character areas

10.8.2.1 Potential impacts will arise on seascape/marine character areas in the vicinity of the Morgan Array Area during the construction, operations and maintenance, and decommissioning phases as a result of the following Morgan Generation Assets MDS components (summarised in Table 10.17 above):

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.2.2 The potential impact will be caused by both static and moving elements of the above components which will affect the characteristics and perceptions of the

seascape/marine character areas in the 50 km SLVIA study area. The three seascape/marine character areas which will experience the most change are:

- MCA 38 Irish Sea South (host seascape – direct effects)
- MCA A Dreswick Point to Maughold Head Isle of Man southeast inshore waters (RPS defined) (adjacent seascape – indirect effects)
- SSZ 5 North Wales and Anglesey Outer Offshore (adjacent seascape – indirect effects).

10.8.2.3 Welsh SSZ 5, MCA 38 and MCA A are described further in Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement.

10.8.2.4 There is no potential for significant effects to arise on other remaining seascape/marine character areas in the 50 km SLVIA study area, mainly due to distance to Morgan Generation Assets. Other seascape/marine character areas are, therefore, not considered further in the Environmental Statement.

MCA: 38 Irish Sea (South)

10.8.2.5 Baseline conditions - MCA 38 is an offshore MCA comprising open water partly characterised by existing offshore windfarms, oil and gas infrastructure and commercial shipping/ferries.

10.8.2.6 Impact considerations - The Morgan Array Area lies within the southwest part of this MCA and as a result, direct impacts will arise. Analysis of the blade tip ZTV indicates visibility of the Morgan Generation Assets across the whole MCA within the 50 km SLVIA study area.

SSZ 5: North Wales and Anglesey Outer Offshore

10.8.2.7 Baseline conditions – SSZ 5 occupies the offshore, open water immediately north of SSZ 4. It abuts the English offshore MCA 38 to the east and Isle of Man (MCA A) and Northern Irish territorial waters to the north and northwest respectively.

10.8.2.8 Impact considerations – Morgan Array Area lies approximately 3.9 km to the northeast of SSZ 5 which extends westwards beyond the 50 km SLVIA study area. It is assessed as medium/low sensitivity according to NRW/White 2019 report on seascape and visual sensitivity to offshore wind farms (although considered, separate findings for seascape value and susceptibility to the proposed development are not provided in this report). Analysis of the blade-tip ZTV indicates visibility of Morgan Generation Assets across the whole Zone within the 50 km SLVIA study area.

MCA A: Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters

10.8.2.9 Baseline conditions - MCA A extends from the seaward boundaries of the Isle of Man coastal character areas E1 to E6, E11 and part of H5. The area is busy with ferries and shipping. It is also popular for recreational sailing.

10.8.2.10 Impact Considerations - The Morgan Array Area lies adjacent to the eastern boundary of this MCA. Analysis of the blade tip ZTV indicates visibility of the Morgan Generation Assets across the whole MCA within the 50 km SLVIA study area.

Construction and decommissioning phases

Magnitude of impact

10.8.2.11 A direct impact will arise on the seascape character of MCA 38 Irish Sea South, the host seascape/marine character area, due to the erection and dismantling of the wind turbines, OSPs and the associated vessel and equipment activities/movements described in Table 10.17. This will affect the characteristics and perceptions of the area of open sea occupied by the Morgan Generation Assets. The potential impact on seascape character is judged to be of short term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect the receptor directly. The magnitude of seascape character impact within Morgan Array Area itself is, therefore, considered to be **large** at most during the construction and decommissioning phases. The magnitude of seascape character impact will be lower farther away from Morgan Array Area and is judged to be **small to medium** for MCA 38 Irish Sea South when considered as a whole. This reflects the short term nature of the effects and the scale of the change which will diminish with increasing distance from the Morgan Generation Assets.

10.8.2.12 The potential impact arising on the adjacent seascape character areas, MCA A Dreswick Point to Maughold Head Isle of Man Southeast Inshore Waters and SSZ 5 North Wales and Anglesey Outer Offshore, will also be of short term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. The magnitude of impact will diminish with increasing distance from the Morgan Array Area over the whole of SSZ 5 and MCA A. The magnitude of seascape impact is judged overall to be **small**. This reflects the short term nature of the effects and the scale of the change which will diminish with increasing distance from the Morgan Generation Assets.

Sensitivity of the receptor

10.8.2.13 The baseline characterisation of the seascape is detailed in Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement. It is also summarised in section 10.4. Based on those characterisations and the descriptors in Table 10.6, MCA 38 Irish Sea South, MCA A Dreswick Point to Maughold Head Isle of Man southeast inshore waters, and SSZ 5 North Wales and Anglesey Outer Offshore are deemed to be of medium seascape value and low susceptibility to the proposed development. The sensitivity of the receptors is, therefore, considered to be **low to medium**. The sensitivity of these seascapes takes account of the characteristics of these seascapes including the influence of existing sea based infrastructure.

Significance of the effect

10.8.2.14 The magnitude of potential direct seascape impact during construction and decommissioning on the part of MCA 38 Irish Sea South occupied by Morgan Generation Assets is deemed to be large and the sensitivity of the receptor to the proposed array area is low to medium. The temporary effects are judged to be **moderate to major adverse**, within that part of MCA 38 occupied by the Morgan Array Area and potentially significant.

10.8.2.15 The significance of effect on seascape character will be less farther away from Morgan Array Area. A small to medium magnitude of impact is considered to arise overall to MCA 38 resulting in a **minor to moderate adverse** and not significant effect for MCA 38 Irish Sea South when considered as a whole.

10.8.2.16 The magnitude of the indirect seascape impact on MCA A Dreswick Point to Maughold Head Isle of Man southeast inshore waters and SSZ 5 North Wales and Anglesey Outer Offshore during construction and decommissioning is deemed to be small and the sensitivity of the receptor is low to medium. The temporary effect will be **minor adverse** and not significant.

Further mitigation and residual effect

10.8.2.17 No further mitigation is proposed.

Operations and maintenance phase

Magnitude of impact

10.8.2.18 A potential impact will arise on the seascape character of MCA 38 Irish Sea South, the host seascape/marine character area due to the operations and maintenance of Morgan Generation Assets. A seascape impact will also potentially arise on the adjacent waters, namely MCA A Dreswick Point to Maughold Head Isle of Man Southeast Inshore Waters and SSZ 5 North Wales and Anglesey Outer Offshore. The impact will be caused by the presence of both moving and static project components (as described in Table 10.17, namely: the rotating wind turbines, OSPs and service vessels/helicopters) which will affect the characteristics and perceptions of the area of open sea occupied by and adjacent to Morgan Array Area.

10.8.2.19 The seascape character impact is judged to be of long term duration, continuous and high reversibility. It is judged that the impact will affect MCA 38 Irish Sea South directly. The magnitude of the seascape impact within Morgan Array Area itself (MCA 38 Irish Sea South) during operations and maintenance is deemed to be **large**. The potential impact on the seascape character of MCA 38 will reduce with distance from Morgan Array Area. The magnitude of impact on MCA 38 Irish Sea South considered as a whole is judged to be **medium to large**. This reflects the scale of the change which will diminish with increasing distance to the Morgan Generation Assets over the full extent of the MCA.

10.8.2.20 Regarding the adjacent seascape, MCA A Dreswick Point to Maughold Head Isle of Man southeast inshore waters and SSZ 5 North Wales and Anglesey Outer Offshore will be affected indirectly. The magnitude of indirect seascape impact is judged to be higher adjacent to Morgan Array Area with the potential impact reducing with increasing distance from the array area. Overall, the magnitude of potential impact for Isle of Man MCA A is **medium.** The magnitude of impact on Wales SSZ 5, when considered as a whole, is assessed as **small to medium**. This reflects the scale of the change which will diminish with increasing distance to the Morgan Generation Assets over the full extent of MCA A and SSZ 5.

Sensitivity of the receptor

10.8.2.21 The sensitivity of MCA 38 Irish Sea South, MCA A Dreswick Point to Maughold Head Isle of Man southeast inshore waters and SSZ 5 North Wales and Anglesey Outer Offshore is as set out for the construction and decommissioning phases above, namely **low to medium**.

Significance of the effect

10.8.2.22 The magnitude of the seascape impact within Morgan Array Area itself (MCA 38 Irish Sea South) during operations and maintenance is deemed to be large. The potential impact on seascape character will reduce with distance from Morgan Array Area. In this regard, a medium to large magnitude of impact will arise overall for MCA 38 and

the sensitivity of the receptor is considered to be low to medium. The effects are, judged to be **moderate to major adverse** and not significant.

10.8.2.23 The seascape impact magnitude is judged to be medium for MCA A Dreswick Point to Maughold Head Isle of Man Southeast Inshore Waters as a whole and the sensitivity of the receptor is considered to be low to medium. The effects are, judged to be **minor to moderate adverse** and not significant.

10.8.2.24 A small to medium magnitude of impact is assessed for SSZ 5 North Wales and Anglesey Outer Offshore as a whole. The sensitivity of this seascape receptor is considered to be low to medium and the resulting significance of effects is **minor adverse** and not significant.

Further mitigation and residual effect

10.8.2.25 No further mitigation is proposed.

10.8.3 Potential impacts on national landscape character areas

10.8.3.1 Indirect impacts will potentially arise on certain landscape character areas falling within the ZTV and the 50 km SLVIA study area during the construction, operations and maintenance, and decommissioning phases resulting from the following MDS components of the Morgan Generation Assets (as set out in Table 10.17 above):

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.3.2 The potential impact will be caused by both static and moving elements of the above components which can affect the characteristics and perceptions of the landscape character areas, particularly those identified on the east coast of the Isle of Man:

- Isle of Man Landscape Character Type (LCT) D Incised Slopes
- Isle of Man Landscape Character Type (LCT) E Rugged Coast
- Isle of Man Landscape Character Type (LCT) H Coastal Cliffs.

10.8.3.3 These three national landscape character areas have a greater potential to be impacted by the proposed development than other national landscape character areas within the 50 km study area and are therefore assessed within this section of the chapter. The assessment has identified limited potential for significant impacts to arise on the remaining national landscape character areas within the 50 km SLVIA study area (listed in Table 10.9 above).

Isle of Man LCT D Incised Slopes

10.8.3.4 Baseline conditions - Incised Inland Slopes Local Character Areas (LCAs) D1 Ballajora and Ballaglass, D2 Laxey, D3 Conrhenny & Groudle, D12 Douglas Head and D13 Santon and D15 Port Erin and Port St. Mary bordering the coast fall within the ZTV. Parts of the inland LCAs D10 Braaid, D11 Foxdale and D14 Ballamodha, Earystane and St Mark's also fall within the study area and the ZTV. LCAs D7 Neb and D8 Peel will be barely affected according to the ZTV. The baseline landscape character is described further in Volume 4, Annex 10.2: Seascape and landscape character baseline of the Environmental Statement.

10.8.3.5 Impact considerations - The Incised Slopes LCAs D1, D2, D3, D10, D11, D12, D13, D14 and D15 are located just over 22 km to the northwest of Morgan Array Area at their closest points between Douglas Head and Clay Head. Analysis of the blade-tip ZTV indicates variable visibility of Morgan Generation Assets across the Incised Slopes LCAs as follows: D1 – 64%, D2 – 89%, D3 – 63%, D10 – 37%, D11 – 20%, D12 – 44%, D13 – 52%, D14 – 68% and D15 – 82%. The visual influence of the offshore turbines will be tempered to varying degrees by landform and vegetation. This and the presence of existing offshore wind farms (e.g. Walney Extension) and commercial shipping would limit the visual influence of the Morgan Generation Assets to a degree.

Isle of Man LCT E Rugged Coast

10.8.3.6 Baseline conditions - Apart for Maughold Head (LCA H5) in the north, the whole length of Isle of Man southeast coast is classified as LCT E Rugged Coast and falls within the study area and the ZTV. North of Douglas, LCAs E4 Clay Head, E5 Laxey Bay and E6 Dhoon Bay and Port Cornaa are characterised by a rugged rocky coastline and rocky foreshore. Around Laxey Bay, cliffs fall steeply towards the sea from the Incised Slopes. A strong sense of embayment/enclosure is provided by headlands. Expansive sea views are available. LCA E3 Douglas Bay is characterised by Douglas and Onchan built-up area. The bay is enclosed by two prominent rocky headlands with jagged sea cliffs. LCAs E1 Port Grenaugh, E2 Port Soderick, E9 Bay Ny Carrickey, E10 Castletown Bay and E11 Langness extend along the coast south of Douglas. LCAs E1 and E2 to E6 are characterised by low rocky coast with jagged cliffs and sheltered coves with shelving shale beaches. The coastline of LCA E11 comprises a flat peninsula/isthmus with a general sense of openness and affords expansive sea views. These LCAs are described further in Volume 4, Annex 10.2: seascape and landscape character baseline technical report of the Environmental Statement.

10.8.3.7 Impact considerations - The Rugged Coast LCAs are situated just over 20 km to the northwest of Morgan Array Area at their closest points between Douglas Head and Clay Head. Analysis of the blade-tip ZTV indicates visibility of Morgan Generation Assets across much of the LCAs as follows: E1 – 100%, E2 – 100%, E3 – 99%, E4 – 100%, E5 – 93%, E6 – 89% E9 – 86%, E10 – 87% and E11 – 69%. Morgan Generation Assets turbines will be visible on the eastern horizon seen in the context of an expansive seascape animated by commercial shipping/ferries, and fishing and recreational vessels, and containing operational wind farms further offshore, in particular Walney Extension to the east. This would temper the visual influence of the Morgan Generation Assets to a degree.

Isle of Man LCT H Coastal Cliffs

10.8.3.8 Baseline conditions - LCA H3 Bradda Head in the south and on the western side of the island is characterised by high and dramatic sea cliffs and panoramic views out to sea and inland. LCAs H4 Cregneash and Meayll Peninsula in the south and H5 Maughold Head to the north are characterised by rugged cliffs, indented bays and rocky outcrops. These LCAs fall within the ZTV and the 50 km SLVIA study area. These are described further in Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement.

10.8.3.9 Impact considerations - H4 and H5 are located at the southern and northern ends of the Isle of Man approximately 33 km to the west and 25 km to the north of Morgan Array Area respectively. Analysis of the blade-tip ZTV indicates visibility of Morgan Generation Assets across 54% of H4 and 79% of H5. LCA H3 is located on the

southern part of the island overlooking the sea to the west and located 37 km from the Morgan Array Area. High ground within the LCA overlaps with the ZTV amounting to an estimated 21% of the LCA.

Construction and decommissioning phases

Magnitude of impact

10.8.3.10 An impact will potentially arise on the character of the Isle of Man LCT E Rugged Coast, LCT H Coastal Cliffs and the adjacent LCT D Incised Inland Slopes due to the erection and dismantling of the wind turbines, OSPs and the associated vessel and equipment activities/movements described in Table 10.17. This may affect the characteristics and perceptions of the landscape of the southeast coast of Isle of Man facing Morgan Array Area situated 22 km away.

10.8.3.11 The potential character impact is judged to be of short term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect the receptor indirectly. The magnitude of landscape character impact is therefore considered to be **small** during the construction and decommissioning phases. This reflects the short term nature of the effects and the scale of the change, which will diminish with increasing distance from the Morgan Generation Assets.

Sensitivity of the receptor

10.8.3.12 The baseline characterisation of the seascape is detailed in Volume 4, Annex 10.2: Seascape and landscape character baseline technical report of the Environmental Statement. It is also summarised in section 10.4. Based on those characterisations and with reference to the methodology in section 10.5, LCT E Rugged Coast, LCT H Coastal Cliffs and LCT D Incised Inland Slopes are deemed to be of medium to high landscape value and medium to high susceptibility to the proposed development. The sensitivity of the receptors is therefore, considered to be **medium to high**.

Significance of the effect

10.8.3.13 Overall, the magnitude of the landscape character impact on LCT E Rugged Coast, LCT H Coastal Cliffs and LCT D Incised Inland Slopes during construction and decommissioning is deemed to be small and the sensitivity of the receptor is high to medium. The temporary effects will be **minor to moderate adverse** and not significant.

Further mitigation and residual effect

10.8.3.14 No further mitigation is proposed.

Operations and maintenance phase

Magnitude of impact

10.8.3.15 An indirect impact will potentially arise on the character of the Isle of Man LCT E Rugged Coast, LCT H Coastal Cliffs and the adjacent LCT D Incised Inland Slopes due to the operations and maintenance of Morgan Generation Assets. The potential impact will be caused by the presence of both moving and static project components occupying Morgan Array Area (as described in Table 10.17 above, namely: the rotating wind turbines, OSPs and service vessels/helicopters), which will affect the characteristics and perceptions of the coastal landscape.

10.8.3.16 The character impact is judged to be of long term duration, continuous and high reversibility. It is judged that the impact will affect the Isle of Man LCT E Rugged Coast, LCT H Coastal Cliffs and the adjacent LCT D Incised Inland Slopes indirectly.

10.8.3.17 The magnitude of impact on LCT E Rugged Coast is considered to be small to medium at most during the operations and maintenance phase reducing to lower magnitudes with distance. An overall **small** magnitude of impact is considered to arise. This reflects the extent of the coastal LCT that would be affected and also the size and scale of the change resulting from the Morgan Generation Assets at distances of over 20 km.

10.8.3.18 The magnitude of impact on LCT D Incised Inland Slopes is considered to be **small**. This takes account of the more limited extent of the LCT that would be affected by the Morgan Generation Assets which will be less than that highlighted in the ZTV due to the screening by vegetation and structures. This also reflects the scale of the change resulting from the Morgan Generation Assets at distances of 22 km or greater.

10.8.3.19 A **small** magnitude of impact is expected to arise on LCT H Coastal Cliffs. This reflects the extent of the effects which would be mostly limited to the east coast of the island along with the scale of the change resulting from Morgan Generation Assets at distances of 25 km or greater.

Sensitivity of the receptor

10.8.3.20 The sensitivity of LCT E Rugged Coast, LCT H Coastal Cliffs and LCT D Incised Slopes is as set out above for the construction and decommissioning phases, namely **medium to high**.

Significance of the effect

10.8.3.21 A **minor to moderate** adverse and not significant will arise to LCT E, LCT D and LCT H. It is noted that the effects on LCT E are nearer to the moderate end of the minor to moderate range compared with LCT D and H.

Further mitigation and residual effect

10.8.3.22 No further mitigation is proposed.

10.8.3.23 The character of other areas of land in the 50 km SLVIA study area, namely northwest England, will be affected to a negligible degree. This is largely due to the distance to the Morgan Generation Assets.

10.8.4 Potential impacts on the special qualities, themes and criteria of nationally and internationally designated landscapes

10.8.4.1 Impacts on the special qualities of nationally and internationally designated landscapes are documented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement. This assessment, focussed on the Lake District National Park and The English Lake District World Heritage Site concluded no significant effects on the particular special qualities or attributes of outstanding universal value selected as relevant to the SLVIA.

10.8.5 Visual impacts – potential impacts on people using National Trails and long-distance paths

10.8.5.1 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from National Trails/long distance paths in the 50 km SLVIA study area falling within the ZTV of

Morgan Generation Assets. These potential impacts would be caused by visibility of some or all the following MDS components (as summarised in Table 10.17 above):

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55m x 65m x 45m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.5.2 The potential impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people using national trails/long distance paths on the Isle of Man. There is the potential for significant impacts on the following two receptors:

- Raad ny Foillan Coastal Path, Isle of Man (Port St Mary to Maughold via Douglas – sections 1, 2, 3, 11 and 12)
- Millennium Way, Isle of Man (between Castleton and Snaefell).

10.8.5.3 The assessment has found that there is a low potential for significant visual impacts to arise on users of other national trail/long distance paths or similar linear receptors in the 50 km SLVIA study area.

Raad ny Foillan Coastal Path, Isle of Man

10.8.5.4 Baseline conditions - Raad ny Foillan is a long-distance path that extends around the coastline of the entire Isle of Man. It measures 164 km in length and is subdivided into 12 stages. The Isle of Man coastline is varied in elevation and the path includes elevated views as well as stretches closer to sea level along beaches and promenades at settlements. The path can be walked in both directions and is well signposted. It incorporates several panoramic viewpoints marked on OS maps, several of which have been selected to represent views at intervals along the east coast of Isle of Man towards Morgan Array Area. The most exposed sections of path with panoramic views over the sea and along the coastline are Maughold Brooghs (representative viewpoint 42, Figures 11.1 and 11.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement, Ballafayle Cairn, Onchan Head, Douglas Head (representative viewpoint 19, Figures 6.1 and 6.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement), Langness (representative viewpoint 18 Figures 5.1 and 5.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement, Port of St Mary (representative viewpoint 46, Figures 15.1 and 15.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement), The Chasms/Sugarloaf (representative viewpoint 50, Figures 17.1 and 17.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) and Spanish Head. The path also follows the promenade at Douglas (representative viewpoint 49, Figures 16.1 and 16.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) and seafront at Laxey (representative viewpoint 43, Figures 12.1 and 12.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) but these views are framed and less wide ranging.

10.8.5.5 Impact considerations - Analysis of the ZTV and the representative viewpoint visualisations, supported by fieldwork, indicates fairly frequent visibility of Morgan Generation Assets from the open sections of Raad ny Foillan Coastal Path affording views across the adjacent seascape (MCA A Dreswick Point to Maughold Head, Isle of Man southeast inshore waters) from much of the southeast coastal of Isle of Man between Maughold Head and Dreswick Point. Stages of the path falling within the ZTV

include stage 1 Douglas – Derbyhaven, stage 2 Derbyhaven - Port St Mary, a section of stage 3 Port St Mary – Port Erin, a short section of stage 9 Point of Ayre – Ramsey before the coast turns in at Ramsey where landform at Maughold Head would screen views, stage 10 Ramsey – Maughold, stage 11 Maughold – Laxey and stage 12 Laxey to Douglas. The stages of the path which extend along the west side of the island are outside of the ZTV for this project and so there would be no effect.

10.8.5.6 The wind turbines would be seen on the horizon as part of the wide coastal panorama set within a seascape animated and characterised to varying extents by commercial shipping/ferries (a constant feature of the 50 km SLVIA study area seascape) in addition to existing offshore wind farms (Walney Extension).

10.8.5.7 The maximum visual impact (worst-case) would be that experienced at the closest sections of the route to Morgan Array Area at the following representative viewpoints:

- Representative Viewpoint 19 – Panoramic Viewpoint at arch southwest of Douglas Head (Figure 6.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (22.5 km)
- Representative Viewpoint 43 – Old Laxey, Isle of Man (Figure 12.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (24.9 km)
- Representative Viewpoint 49 –Douglas Promenade, Isle of Man (Figure 16.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (24 km).

10.8.5.8 Lower magnitudes of visual change would occur at other more distant points along the path at the following representative viewpoints:

- Representative Viewpoint 42 – Maughold Head Lighthouse, Isle of Man (Figure 11.1) (28.5 km)
- Representative Viewpoint 46 – Port St Mary, Isle of Man (Figure 15.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (35.8 km)
- Representative Viewpoint 50 – Coast Path at Chasm/Sugarloaf, Isle of Man (Figure 17.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (37 km).

10.8.5.9 Wirelines and photomontages of the wind turbines and OSPs for each of the above representative viewpoints are presented in Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement.

10.8.5.10 At approximate distances of 22.5 km to 37 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70 % of the year). The wind turbines would be difficult to discern (or not visible) at other times of the year.

Millennium Way, Isle of Man

10.8.5.11 Baseline conditions - The Millennium Way, formerly the Via Regia/Royal Way, was renamed in 1979 to celebrate 1000 years of the Manx Parliament. The long-distance path runs through the central part of the Isle of Man from Castletown to Ramsey and is approximately 36 km long. It starts at Sky Hill in Ramsey in the north of the island, and extends south to Castle Rushen in Castletown. The route follows the varied landform of the island: elevated in parts (e.g. Skyhill and the moorlands to the south); skirting around the lower contours of Snaefell. There are long sections of path without

views to the sea, such as the Silver Burn River section between Ballasalla and Castletown. Where eastward views towards the sea are possible these would be across varied landform in the foreground.

10.8.5.12 Impact considerations - Fieldwork and analysis of the ZTV indicate limited visibility of Morgan Generation Assets from Millennium Way including from areas in the vicinity of Baldwin, St Marks and Castletown in the southern part of the island. Elsewhere in the northern part of the island generally, Morgan Generation Assets would generally be screened by intervening landform, vegetation and sometimes buildings/settlement. Where visible the wind turbines would be seen on the horizon as part of a wide coastal panorama characterised by existing offshore wind farms (Walney Extension) and commercial shipping/ferries (a regular intermittent feature of the seascape within the 50 km SLVIA study area).

10.8.5.13 At approximately 30 km distance Morgan Generation Assets would be theoretically visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70 % of the year). The wind turbines would be difficult to discern (or not visible) at other times of the year.

National Trails and Long Distance Footpaths, England

10.8.5.14 The Cumbria Coastal Way/England Coast Path is located over 40 km from the Morgan Array Area and The Cistercian Way on Walney Island is located at an approximate distance of 37 km. The representative viewpoints relevant to this receptor type are listed below:

- Representative viewpoint 14 – Cistercian Way, Walney Island, Cumbria (Figures 1.1 and 1.2) (37.3 km)
- Representative viewpoint 16 – England Coast Path, Lake District National Park (Figures 3.1 and 3.2) (40.4 km).

At these distances, there is limited potential for significant visual effects to arise on users of these long-distance footpaths. These are, therefore, not considered further in the Environmental Statement.

Construction and Decommissioning phase

Magnitude of impact

10.8.5.15 An impact will potentially arise on the views/visual amenity of people using the Raad ny Foillan Coastal Path and the Millennium Way walking route. There is a potential impact from the erection and dismantling of the wind turbines, OSPs and the associated vessel and equipment activities/movements within Morgan Array Area (Table 10.17), which would be situated offshore over 22 km distance from Raad ny Foillan and 29 km from Millennium Way.

10.8.5.16 The potential impact is judged to be of short term duration (increasing during construction, decreasing during decommissioning), intermittent and high reversibility. It is judged that the impact will affect receptors directly. Regarding Raad ny Foillan Coastal Path, the magnitude of visual impact is therefore considered to be **small.** A **negligible** magnitude of impact is assessed for users along Millennium Way. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.5.17 Based on the assessment methodology in section 10.5, a high value of the view and a high visual susceptibility to the proposed development is assessed for people using national trails/long distance paths including the Raad ny Foillan Coastal Path and Millennium Way, which are considered to have **high** sensitivity to change.

Significance of the effect

10.8.5.18 Overall, the magnitude of the visual impact on people using Raad ny Foillan Coastal Path during construction and decommissioning is deemed to be small and the sensitivity of the receptor is high. The temporary effect will be **minor adverse** and not significant.

10.8.5.19 The magnitude of the visual impact on people using Millennium Way is deemed to be negligible and the sensitivity of the receptor is high. The temporary effect will be **negligible adverse** and not significant.

Further mitigation and residual effect

10.8.5.20 No further mitigation is proposed.

Operations and maintenance phase

Magnitude of impact

10.8.5.21 A visual impact will potentially arise on people using Raad ny Foillan Coastal Path and Millennium Way due to the operations and maintenance of Morgan Generation Assets. The potential impact will result from visibility of both moving and static project components occupying Morgan Array Area (as described in Table 10.17) namely, some or all of the turbines, the OSPs and service vessels/helicopters, which have the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.5.22 The potential impact is judged to be of long term duration, intermittent and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small to medium** in the case of Raad ny Foillan Coastal Path and **small** in the case of Millennium Way during the operations and maintenance phase. These assessments of magnitude of impact reflect the scale of the change in the view and the proportion of the view that would be affected along with the extent of the route where these visual effects would be experienced.

Sensitivity of the receptor

10.8.5.23 The sensitivity of the views/visual amenity of people using national trails/long distance paths is as set out above for the construction and decommissioning phases, namely **high.**

Significance of the effect

10.8.5.24 Overall, the magnitude of visual impact in relation to people using Raad ny Foillan Coastal Pathway during operations and maintenance is deemed to be small to medium and the sensitivity of the receptor is high. The effect will be **moderate** adverse and not significant.

10.8.5.25 The magnitude of visual impact in relation to people using Millennium Way is deemed to be small and the sensitivity of the receptor is high. The effect will be **minor** adverse and not significant.

Further mitigation and residual effect

10.8.5.26 No further mitigation is proposed.

10.8.6 Visual impacts – people using Countryside Rights of Way Act 2000 Access Land, or equivalent land with public access

10.8.6.1 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from land with public access in the 50 km SLVIA study area falling within the ZTV of Morgan Generation Assets. These potential impacts would be caused by visibility of some or all the following MDS components (as summarised in Table 10.17 above):

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.6.2 The potential impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people using informal publicly accessible land within the 50 km SLVIA study area. The greatest potential for significant effects will be restricted to the following elevated locations on the Isle of Man:

- Snaefell, Isle of Man
- Slieau Ruy, Isle of Man
- South Barrule, Isle of Man.

10.8.6.3 There is no access land/open country on the Isle of Man. Neither is there the 'right to roam' as in Scotland. However, key areas with representative viewpoints where there is permissive access, such as at the above referenced elevated locations, are considered.

10.8.6.4 The assessment has found that there is no potential for significant visual effects to arise on users of other access land/open country or equivalent receptors in the 50 km SLVIA study area.

Snaefell

10.8.6.5 Baseline conditions - Snaefell (621 m Above Ordnance Datum (AOD) is the highest point on the Isle of Man, the summit of an upland area with public access affording wide ranging, panoramic views extending across the Irish Sea (representative viewpoint 20, Figures 7.1 and 7.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement. The descending slopes in fore/middle ground comprise the Isle of Man LCA A1 Northern Uplands and LCA B4 Laxey Glen with LCA E5 Laxey Bay below. MCA A Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters (RPS defined) forms the wider seascape with MCA 38 Irish Sea South (England) making up the background seascape. The adjacent waters are animated by coastal commercial shipping, mainland ferries, fishing vessels and recreational sailing. Several operational offshore wind farms are visible including Walney Extension/Walney and West of Duddon Sands to the east, and Gwynt y Môr to the south-east. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement

10.8.6.6 Impact considerations - Fieldwork and analysis of the ZTV and the representative viewpoint 20 visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 26% (23.4°) of the 90° HFoV. The turbines would be visible in the far distance, appearing closer than the existing Walney offshore wind farm group, set within a seascape animated by commercial shipping/ferries. At approximately 31.2 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Slieau Ruy

10.8.6.7 Baseline conditions - Slieau Ruy (479 m AOD) forms a high point in the upland landscape in the centre of the Isle of Man affording wide ranging, views extending over the adjacent Irish Sea encompassing Isle of Man LCA A1 Northern Uplands and Douglas settlement on the coast below (LCA E3 Douglas Bay) (representative viewpoint 44, Figures 13.1 and 13.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement). The surrounding seascape comprises MCA A Dreswick Point to Maughold Head, Isle of Man southeast Inshore Waters (RPS defined) with MCA 38 Irish Sea South (England) beyond. The inshore and offshore waters are animated by coastal commercial shipping/ferries, fishing vessels and recreational sailing. Several offshore wind farms are visible including Walney/Walney Extension and West of Duddon Sands in the east and Gwynt y Môr to the southwest. The North Wales coast including Eryri may be visible on the far horizon in the most favourable weather conditions. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement (representative viewpoint 44, Figures 13.1 and 13.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement).

10.8.6.8 Impact considerations - Fieldwork and analysis of the ZTV and the representative viewpoint 44 visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 22% (19.5°) of the 90° HFoV. The turbines would be visible in the far distance, appearing closer than the existing Walney Extension offshore wind farm group, set within a seascape animated by commercial shipping/ferries. At approximately 32.1 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

South Barrule

10.8.6.9 Baseline conditions - South Barrule (483 m AOD) is the high point of the inland upland landscape west of Douglas of the Isle of Man affording wide ranging, views which extend south-east across the adjacent Irish Sea encompassing Isle of Man LCA A2 Southern Uplands and the coast below including Santon Head (LCA D13 Santon and LCA E2 Port Soderick) (representative viewpoint 45, Figures 14.1 and 14.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement). The surrounding seascape comprises MCA A Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters (RPS defined) with MCA 38 Irish Sea South (England) beyond. The inshore and offshore waters are animated by coastal commercial shipping/ferries, fishing vessels and recreational sailing. Several offshore wind farms are visible including Walney/Walney Extension and West of Duddon Sands in the east and Gwynt y Môr to the southwest. In the most favourable visibility, the North Wales coast including Eryri may be seen on the far horizon. This view is described further in

Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

10.8.6.10 Impact considerations - Fieldwork and analysis of the ZTV and the representative viewpoint 45 visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 20% (17.7°) of the 90° HFoV. The turbines would be visible in the far distance, appearing closer than the existing Walney Extension offshore wind farm group, set within a seascape animated by commercial shipping/ferries. At approximately 34.2 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

10.8.6.11 The representative viewpoints of relevance to this receptor type are listed below. Wirelines and photomontages of the wind turbines and OSPs for each representative viewpoint are presented in Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement:

- Representative viewpoint 14 – Cistercian Way, Walney Island, Cumbria (Figures 1.1 and 1.2) (37.5 km).
- Representative viewpoint 16 – England Coast Path, Lake District National Park (Figures 3.1 and 3.2) (40.7 km)
- Representative viewpoint 17 – Kinmont/Buck Barrow, Lake District National Park (Figures 4.1 and 4.2) (48.7 km)
- Representative viewpoint 18 – Herring Tower trig point, Langness Peninsula, Isle of Man (Figures 5.1 and 5.2) (28.1 km)
- Representative viewpoint 19 – viewpoint at arch southwest of Douglas Head, Isle of Man (Figures 6.1 and 6.2) (22.5 km)
- Representative viewpoint 20 – Snaefell, summit station trig point, Isle of Man (Figures 7.1 and 7.2) (31.2 km)
- Representative viewpoint 42 – Maughold Head/Maughold Brooghs, Isle of Man (Figures 11.1 and 11.2) (28.5 km)
- Representative viewpoint 44 – Slieau Ruy cairn/trig point, Isle of Man: Figures (13.1 and 13.2) (32.1 km)
- Representative viewpoint 45 – South Barrule cairn/trig point, Isle of Man (Figures 14.1 and 14.2) (34.2 km)
- Representative viewpoint 50 – Coast Path at the Chasms/Sugarloaf, Isle of Man (Figures 17.1 and 17.2) (37 km)
- Representative viewpoint 59 – Black Combe, Lake District National Park (Figures 21.1 and 21.2) (43.8 km)

Construction and decommissioning phases

Magnitude of impact

10.8.6.12 An impact will potentially arise on the views/visual amenity of people visiting the summits Snaefell, Slieau Ruy and South Barrule. This will be caused by visibility of the erection and dismantling of the wind turbines, the OSPs and the associated vessel and equipment activities/movements (described in Table 10.17 above) within Morgan Array Area situated offshore at approximate distances exceeding 31 km.

10.8.6.13 The potential impact is judged to be of short term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible to small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.6.14 The visual amenity of people visiting the summits of Snaefell, Slieau Ruy and South Barrule for informal recreation is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.6.15 Overall, the magnitude of the visual impact on views experienced by people using publicly accessible land at Snaefell, Slieau Ruy and South Barrule during construction and decommissioning is deemed to be negligible to small and the sensitivity of the receptor is high. The temporary effects will be **minor adverse** and not significant.

Further mitigation and residual effect

10.8.6.16 No further mitigation is proposed.

Operations and maintenance phase

Magnitude of impact

10.8.6.17 A visual impact will potentially arise on views experienced by people visiting the summits Snaefell, Slieau Ruy and South Barrule due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying Morgan Array Area (as described in Table 10.17), namely, some or all of the rotating wind turbines, the OSPs and service vessels/helicopters, which have the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.6.18 The impact is judged to be of long term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.6.19 The sensitivity of viewers visiting these summits is as set out above for the construction and decommissioning phases, namely **high** for Snaefell, Slieau Ruy and South Barrule.

Significance of the effect

10.8.6.20 Overall, the magnitude of visual impact in relation to views experienced by people using publicly accessible land at Snaefell, Slieau Ruy and South Barrule caused by Morgan Generation Assets during operations and maintenance, situated offshore at approximate distances exceeding 31 km is deemed to be small. The sensitivity of the receptor is high. The effect at Snaefell will be **minor to moderate** adverse and not significant. The effect at Slieau Ruy and South Barrule will be **minor** adverse and not significant.

Further mitigation and residual effect

10.8.6.21 No further mitigation is proposed.

10.8.7 Visual impacts – potential impacts on people using National Cycle Routes and the National Cycleway Network

10.8.7.1 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from sections of the National Cycleway Network on the Isle of Man, that fall within the ZTV of the Morgan Generation Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets components (as summarised in Table 10.17):

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.7.2 The potential impacts will be generated by both static and moving elements of the above components which will intermittently affect the views/visual amenity of people using the following key routes on/near the coast of the Isle of Man, or on high land, with views towards the Morgan Generation Assets array area:

- Isle of Man National Cycleway Network No. 1
- Isle of Man National Cycleway Network No. 2
- Isle of Man National Cycleway Network No. 3
- Isle of Man National Cycleway Network No. 5
- Isle of Man National Cycleway Network No. 6.

10.8.7.3 The potential visual effects arising on cyclists using these routes are assessed below.

10.8.7.4 Baseline conditions - The main sections of National Cycleway Network Route Nos. 1, 2, 3, 5, and 6. in coastal locations and on high land of the Isle of Man, with the potential for visibility towards Morgan Array Area along these routes there are sections where visibility is reduced due to intervening vegetation, landform, and settlement. Many of these routes are aligned perpendicular to the direction of Morgan Array Area. Cyclists' attention would be generally focussed on the road. However, they would be free to appreciate views of the surrounding landscape and seascape where available.

10.8.7.5 Impact considerations - Analysis of the ZTV supported by fieldwork and the representative viewpoint visualisations referred to below indicates intermittent visibility of Morgan Generation Assets from the Isle of Man National Cycleway Network. Fleeting views of Morgan Generation Assets are likely from open stretches of the network, along the coast and from high land. Where visibility is afforded, the proposed wind turbines would be visible on the horizon at closest distances of approximately 22.5 km. Morgan Generation Assets would be viewed in the context of a seascape to an extent already characterised by offshore wind farms (Walney Extension being the closest) and commercial shipping/ferry traffic.

10.8.7.6 At the distances specified, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The wind turbines would be difficult to discern (or not visible) at other times of the year.

10.8.7.7 The representative viewpoints of relevance to this receptor type are listed below. Wirelines and photomontages of the wind turbines and OSPs for each representative

viewpoint are presented in Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement. The figure references below refer to that document:

- Representative viewpoint 19 – viewpoint at arch southwest of Douglas Head, Isle of Man (Figures 6.1 and 6.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (22.5 km)
- Representative viewpoint 43 – Car park/seafront at Old Laxey, Isle of Man (Figures 12.1, 12.2 and 12.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (24.9 km)
- Representative viewpoint 49 – Douglas promenade, Isle of Man (Figures 16.1 and 16.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (24 km).

10.8.7.8 Within England the key coastal National Cycle Route (NCR) that falls within the 50 km SLVIA study area is:

- NCR 62 on Lancashire coast between the Ribble Estuary and Morecambe Bay, see representative viewpoint 15 Queen's Promenade, Blackpool (Figure 2.1, 2.2 and 2.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement).

10.8.7.9 There is a negligible to no potential for significant visual effects to be experienced by users of the NCR in England, within the 50 km SLVIA study area, due to cyclists having a medium sensitivity to the Morgan Generation Assets and the distance of the proposed development from those cycle routes. Therefore, cyclists using NCR in England, including NCR 62, are assessed no further here.

Construction and decommissioning phases

Magnitude of impact

10.8.7.10 An impact will potentially arise on the views/visual amenity of people using the sections of the Isle of Man National Cycleway Network Route Nos. 1, 2, 3, 5 and 6, identified above. This will be caused by intermittent and fleeting visibility of the erection and dismantling of the wind turbines, the OSPs and the associated vessel and equipment activities/movements (described in Table 10.17 above) within the Morgan Array Area situated offshore at a minimum approximate distance of 22.2 km.

10.8.7.11 The impact is judged to be of short term duration (increasing during construction, decreasing during decommissioning), intermittent and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.7.12 Views obtained by people using the cycleway routes on the Isle of Man are deemed to be of medium value and medium susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **medium** reflecting their partial interest in their surroundings as reported above under baseline conditions.

Significance of the effect

10.8.7.13 Overall, the magnitude of the visual impact on people using the Isle of Man National Cycleway Network during construction and decommissioning is deemed to be

negligible to small and the sensitivity of the receptor is medium. The effects will be **negligible** and not significant.

Further mitigation and residual effect

10.8.7.14 No further mitigation is proposed.

Operations and maintenance phase

Magnitude of impact

10.8.7.15 A visual impact will potentially arise on people using the Isle of Man National Cycleway Network during the operations and maintenance phase of the Morgan Generation Assets array. The potential impact will result from visibility of both moving and static project components occupying Morgan Array Area (as described in Table 10.17), namely, some or all of the rotating wind turbines, the OSPs and service vessels/helicopters which have the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.7.16 The potential impact will be fleeting and is judged to be of long term duration, intermittent and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **negligible** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.7.17 The sensitivity of the views/visual amenity of people using the Isle of Man National Cycleway Network is as set out above for the construction and decommissioning phases, namely **medium**.

Significance of the effect

10.8.7.18 Overall, the magnitude of visual impact in relation to people using sections of the Isle of Man National Cycleway Network during the operations and maintenance phase is deemed to be small at most and the sensitivity of the receptor is medium. The effect will be **negligible** adverse and not significant.

Further mitigation and residual effect

10.8.7.19 No further mitigation is proposed.

10.8.8 Visual impacts – potential impacts on people at main coastal settlement seafronts/shorelines

10.8.8.1 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from coastal settlement seafronts/shorelines in the 50 km SLVIA study area falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following MDS components (as summarised in Table 10.17):

- 68 wind turbines 364 m maximum blade-tip height)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.8.2 The potential impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people using the following seafront promenades and/or shorelines and beaches on the Isle of Man:

- Douglas
- Laxey.

10.8.8.3 The potential impacts on people at these locations are assessed below. There is negligible potential for significant visual effects to arise on people using other coastal settlement seafronts/shorelines or equivalent receptors in the 50 km SLVIA study area.

10.8.8.4 The representative viewpoints of relevance to this receptor type are listed below. Wirelines and photomontages of the wind turbines and OSPs for each representative viewpoint are presented in Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement:

- Representative viewpoint 14 – Cistercian Way, Walney Island, Cumbria (Figures 1.1 and 1.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (37.5 km)
- Representative viewpoint 15 – Blackpool North Pier (Figures 2.1, 2.2 and 2.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (50.2 km)
- Representative viewpoint 43 – Car park/seafront at Old Laxey, Isle of Man (Figures 12.1, 12.2 and 12.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (24.9 km)
- Representative viewpoint 46 – TSS Mona's Queen III anchor memorial at Port St. Mary Point, Isle of Man (Figures 15.1, 15.2 and 15.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (35.8 km)
- Representative viewpoint 49 – Douglas promenade, Isle of Man (Figures 16.1, 16.2 and 16.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (24 km).

10.8.8.5 Baseline conditions - There are a number of coastal settlements situated in the 50 km SLVIA study area on the east coast of the Isle of Man with popular, publicly accessible seafronts/shorelines. Several of these afford views across the adjacent seascape towards Morgan Array Area. These are principally (from north to south): Laxey (representative viewpoint 43, Figures 12.1, 12.2 and 12.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement), Douglas and Onchan (representative viewpoint 19, Figures 6.1 and 6.2 and representative viewpoint 49, Figures 16.1, 16.2 and 16.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement), Castletown (represented by representative viewpoint 18, Figures 5.1 and 5.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement, but likely to be more restricted) and Port Saint Mary (representative viewpoint 46, Figures 15.1, 15.2 and 15.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement). Views towards Morgan Array Area from Ramsey to the north of the Island are restricted by landform at Maughold Head; similarly views from Castletown are restricted by the elongated land strip at Langness Peninsula. Consequently, these two settlement seafronts are assessed no further.

10.8.8.6 Impact considerations - Fieldwork and analysis of the ZTV and the representative viewpoint visualisations indicate visibility of Morgan Generation Assets from the main Isle of Man settlements on the southeast coast between Maughold Head and Spanish Head. Being the closest, the framed seaward views from Douglas and Laxey seafronts

are likely to be the most affected by Morgan Generation Assets. This is in part because the views would be framed by the headlands/landform that encloses the Laxey and Douglas Bays – representative viewpoint 43, Figures 12.1, 12.2 and 12.3 and representative viewpoint 49, Figures 16.1, 16.2 and 16.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement are illustrative. In wider panoramas from the coast more of the existing seascape context would be in view (including commercial shipping traffic and ferries and the operational Walney Extension offshore wind farm) and the visual change due to introduction of Morgan Generation Assets less. The visual change would also be lower in more distant views from other settlement seafronts such as at Port St Mary (representative viewpoint 46, Figures 15.1, 15.2 and 15.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) where Morgan Generation Assets would be viewed obliquely.

10.8.8.7 At the closest distance of approximately 24 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The wind turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.8.8 An impact will potentially arise on the views/visual amenity of people using the seafront promenades and beaches at Douglas and Laxey. This will be caused by visibility of the erection and dismantling of the wind turbines, the OSPs and the associated vessel and equipment activities/movements (described in Table 10.17) within Morgan Array Area situated offshore at distances of approximately 24 km.

10.8.8.9 The impact is judged to be of short term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.8.10 The views/visual amenity of people using the seafront promenades and beaches at Douglas and Laxey are deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high** and this reflects these locations as recognised visitor destinations.

Significance of the effect

10.8.8.11 Overall, the magnitude of the visual impact on people using the seafront promenades and beaches at Douglas and Laxey during construction and decommissioning is deemed to be small and the sensitivity of the receptor is high. The temporary effect will be **minor to moderate adverse** and not significant.

Further mitigation and residual effect

10.8.8.12 No further mitigation is proposed.

Operations and maintenance phase

Magnitude of impact

10.8.8.13 A visual impact will potentially arise on people using the seafront promenades and beaches at Douglas and Laxey due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying Morgan Array Area (as described in Table 10.17), namely, some or all of the rotating wind turbines, the OSPs and service vessels/helicopters, which have the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.8.14 The impact is judged to be of long term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small to medium** during the operations and maintenance phase. The magnitude of visual impact at other seafront locations farther away from the Morgan Array Area will be lower. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.8.15 The sensitivity of people's views/visual amenity using the seafront promenades and beaches at Douglas and Laxey is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.8.16 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, situated at an approximate distance of 24 km offshore, in relation to people using the seafront promenades and beaches at Douglas and Laxey is deemed to be small to medium at most. The sensitivity of the receptor is high. The effect will be **moderate** adverse and not significant in the case of the views across the adjacent seascape from Douglas and Laxey. Representative viewpoint 49 (Figures 16.1 and 16.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) and representative viewpoint 43 (Figures 12.1, 12.2 and 12.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) are representative of the judged visual change involved.

10.8.8.17 The significance of visual effects at other seafront locations farther away from the Morgan Generation Assets is assessed as lower and not significant. Representative viewpoint 14 (Figures 1.1 and 1.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement), representative viewpoint 15 (Figures 2.1, 2.2 and 2.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) and representative viewpoint 46 (Figures 15.1, 15.2 and 15.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) provide illustrated views from these locations.

Further mitigation and residual effect

10.8.8.18 No further mitigation is proposed.

10.8.9 Visual impacts – potential impacts on people travelling along coastal roads

10.8.9.1 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from key coastal roads in the 50 km SLVIA study area falling within the ZTV of Morgan Generation

Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets components (as summarised in Table 10.17):

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.9.2 The potential impacts will be generated by both static and moving elements of the above components which will intermittently affect the views/visual amenity of people using the following key roads on/near the coast of the Isle of Man:

- A2 between Douglas/Onchan and Laxey
- A5 between Douglas and Castleton
- A11 Queen's Promenade/King Edward Road at Douglas/Onchan
- A25 at Quine's Hill.

10.8.9.3 Only the visual amenity of people travelling on roads on the Isle of Man are assessed in the following paragraphs. There is negligible potential for significant visual effects to arise on road users or similar linear receptors in the wider 50 km SLVIA study area and these are not considered any further in this assessment.

10.8.9.4 The representative viewpoints of relevance to this receptor type are listed below. Wirelines and photomontages of the wind turbines and OSPs for each representative viewpoint are presented in Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement:

- Representative viewpoint 15 – Blackpool North Pier, Lancashire (Figure 2.1, 2.2 and 2.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (50.2 km)
- Representative viewpoint 43 – Car park/seafront at Old Laxey, Isle of Man (Figures 12.1, 12.2 and 12.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (24.9 km)
- Representative viewpoint 46 – TSS Mona's Queen III anchor memorial at Port St. Mary Point, Isle of Man (Figures 15.1, 15.2 and 15.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (35.8 km)
- Representative viewpoint 49 – Douglas promenade, Isle of Man (Figures 16.1, 16.2 and 16.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (24 km)

10.8.9.5 Baseline conditions - Along the stretches of A2, A5, A11 and A25 coastal roads falling within the ZTV of Morgan Generation Assets referred to above, there are sections where visibility is reduced due to intervening vegetation, landform, and settlement. These roads tend to be aligned perpendicular to the direction of Morgan Array Area. Drivers would be travelling at appropriate speeds with their attention focussed on the road. That said, passengers would be free to appreciate views of the surrounding landscape and seascape where available. There is negligible potential for significant visual effects to arise on users of the A5 and A25 between Douglas and Castleton and therefore they are assessed no further here.

10.8.9.6 Impact considerations - Analysis of the ZTV supported by fieldwork and the representative viewpoint visualisations indicate intermittent visibility of Morgan Generation Assets from the A2, A5, A11 and A25. Fleeting views of Morgan

Generation Assets are likely from open stretches of the A2 between Douglas/Onchan, Laxey and Maughold Head and the A11 Queen's Promenade/King Edward Road at Douglas/Onchan. Where visibility is occasionally afforded, the proposed wind turbines would be visible on the horizon at closest distances of approximately 24 km. Morgan Generation Assets would be viewed in the context of a seascape to an extent already characterised by offshore wind farms (Walney Extension being the closest) and commercial shipping/ferry traffic. At the distances specified, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70 % of the year). The wind turbines would be difficult to discern (or not visible) at other times of the year.

10.8.9.7 In summary, there would be limited visual change from sections of the coastal (or near coast) roads where views across the adjacent sea of Morgan Generation Assets are afforded. Furthermore, there would be negligible or no visibility of Morgan Generation Assets from those parts of these and other routes set back from the coast and farther inland.

Construction and decommissioning phases

Magnitude of impact

10.8.9.8 An impact will potentially arise on the views/visual amenity of people using the sections of the A2, A5, A11 and A25 on the Isle of Man identified above. This will be caused by intermittent and fleeting visibility of the erection and dismantling of the wind turbines, the OSPs and the associated vessel and equipment activities/movements (described in Table 10.17 above) within Morgan Array Area situated offshore at approximately 24 km distance at the closest point.

10.8.9.9 The impact is judged to be of short term duration (increasing during construction, decreasing during decommissioning), intermittent and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible to small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.9.10 Views obtained by people using the A2, A5, A11 and A25 roads on the Isle of Man are deemed to be of medium value and low susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered on balance to be **low**. This reflects the viewer's partial or limited attention to their surroundings as referred to above.

Significance of the effect

10.8.9.11 Overall, the magnitude of the visual impact on people using the A2, A5, A11 and A25 roads during construction and decommissioning is deemed to be negligible to small and the sensitivity of the receptor is low. The temporary effect will be **negligible adverse and not significant**.

Further mitigation and residual effect

10.8.9.12 No further mitigation is proposed.

Operations and maintenance phase

Magnitude of impact

10.8.9.13 A visual impact will potentially arise on people using the A2, A5, A11 and A25 roads due to the operations and maintenance of Morgan Generation Assets. The potential impact will result from visibility of both moving and static project components occupying Morgan Array Area (as described in Table 10.17 above, namely: some or all of the rotating wind turbines, the OSPS and service vessels/helicopters) which have the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.9.14 The impact will be fleeting and is judged to be of long term duration, intermittent and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.9.15 The sensitivity of the people using the A2, A5, A11 and A25 roads is as set out above for the construction and decommissioning phases, namely **low**.

Significance of the effect

10.8.9.16 Overall, the magnitude of visual impact in relation to people using the A2, A5, A11 and A25 roads during operations and maintenance is deemed to be small at most and the sensitivity of the receptor is low. The effects will be **negligible to minor adverse** and not significant. Representative viewpoint 49 (Figures 16.1 and 16.2) illustrates the judged visual change involved at the closest stretch of road to Morgan Array Area.

Further mitigation and residual effect

10.8.9.17 No further mitigation is proposed.

10.8.10 Visual impacts – potential impacts on people travelling along coastal railways

10.8.10.1 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases whilst travelling on key coastal railways in the 50 km SLVIA study area falling within the ZTV of Morgan Generation Assets. These potential impacts would be caused by visibility of some or all the following MDS components (as summarised in Table 10.17 above):

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.10.2 The potential impacts will be generated by both static and moving elements of the above components which will intermittently affect the views/visual amenity of people using the following key railways on/near the coast of the Isle of Man:

- Isle of Man Steam Railway – between Port Erin Douglas
- Manx Electric Railway (MER) – between Laxey and Douglas
- Snaefell Mountain Railway – Laxey to Snaefell summit.

10.8.10.3 These railway routes are assessed below. There is negligible potential for significant visual effects to arise on users of other key coastal railways or similar linear receptors in the 50 km SLVIA study area.

10.8.10.4 Baseline conditions - The MER broadly follows the route of the A2 (with some local diversions) between Douglas and Ramsey via Laxey where it links with Snaefell Mountain Railway which runs up to Snaefell summit.

10.8.10.5 Isle of Man Steam Railway links Douglas with Port Erin via Castleton to the south broadly following the A5, mainly set back from the coast, meandering south and north of the route.

10.8.10.6 Impact considerations - Fieldwork and analysis of the ZTV and the representative viewpoint visualisations indicate visibility of Morgan Generation Assets from the Isle of Man railways between Maughold Head and Laxey in the north and Port Erin in the south. In keeping with the road routes that they broadly follow, and the landscape context, intermittent and fleeting views of Morgan Generation Assets are anticipated from open stretches between Douglas via Onchan and Laxey as far as Maughold Head. Where visibility is occasionally afforded, the proposed wind turbines would be visible on the horizon at closest distance of approximately 24 km. Morgan Generation Assets would be viewed in the context of a seascape already characterised to an extent by offshore wind farms (Walney Extension being the closest) and commercial shipping/ferry traffic. At the distances specified, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The wind turbines would be difficult to discern (or not visible) at other times of the year.

10.8.10.7 In summary, the sections of the Isle of Man railways with potential to be visual affected are the exposed sections MER in the vicinity of Douglas/Onchan and Snaefell Mountain Railway. There would be negligible or no visibility of Morgan Generation Assets from stretches of railways at enclosed locations set back from the coast.

10.8.10.8 The representative viewpoints of relevance to this receptor type are listed below. Wirelines and photomontages of the wind turbines and OSPs for each representative viewpoint are presented in Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement:

- Representative viewpoint 20 – Snaefell, summit station trig point, Isle of Man (Figures 7.1 and 7.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (31.2 km)
- Representative viewpoint 43 – Car park/seafront at Old Laxey, Isle of Man (Figures 12.1, 12.2 and 12.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (24.9 km)
- Representative viewpoint 46 – TSS Mona's Queen III anchor memorial at Port St. Mary Point, Isle of Man (Figures 15.1, 15.2 and 15.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (35.8 km)
- Representative viewpoint 49 – Douglas promenade, Isle of Man (Figures 16.1, 16.2 and 16.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (24 km).

Construction and decommissioning phases

Magnitude of impact

10.8.10.9 An impact will potentially arise on the views/visual amenity of people using the railways on/near the coast identified above on the Isle of Man. This will be caused by intermittent and fleeting visibility of the erection and dismantling of the wind turbines, the OSPs and the associated vessel and equipment activities/movements (described in Table 10.17) within Morgan Array Area situated offshore at distances ranging between approximately 24 to 35 km.

10.8.10.10 The impact is judged to be of short term duration (increasing during construction, decreasing during decommissioning), intermittent and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.10.11 Views obtained by people using the railways on/near the coast on the Isle of Man identified above are deemed to be of medium value and medium susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered on balance to be **medium**. This reflects the viewer's partial interest in their surroundings.

Significance of the effect

10.8.10.12 Overall, the magnitude of the visual impact on people using the MER, the Isle of Man Steam Railway and Snaefell Mountain Railway during construction and decommissioning is deemed to be small and the sensitivity of the receptor is medium. The temporary effect will be **minor adverse and not significant**.

Further mitigation and residual effect

10.8.10.13 No further mitigation is proposed.

Operations and maintenance phase

Magnitude of impact

10.8.10.14 A visual impact will potentially arise due to the operations and maintenance of Morgan Generation Assets on people using the railways on/near the coast on the Isle of Man identified above. The potential impact will result from visibility of both moving and static project components occupying Morgan Array Area (as described in Table 10.17) namely, some or all of the turbines, the OSPs and service vessels/helicopters, which have the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.10.15 The impact will be fleeting and is judged to be of long term duration, intermittent and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small to medium** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.10.16 The sensitivity of the people using the railways on/near the coast on the Isle of Man is as set out above for the construction and decommissioning phases, namely **medium**.

Significance of the effect

10.8.10.17 Overall, the magnitude of visual impact in relation to people using the MER, the Isle of Man Steam Railway and Snaefell Mountain Railway during operations and maintenance is deemed to be small to medium at most and the sensitivity of the receptor is medium. The effects will be **minor to moderate adverse** and not significant. Representative viewpoint 49 (Figures 16.1, 16.2 and 16.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) illustrates the judged visual change involved at the closest section of railway to Morgan Array Area.

Further mitigation and residual effect

10.8.10.18 No further mitigation is proposed.

10.8.11 Visual impacts – potential impacts on people using main ferry routes

10.8.11.1 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases in views from key ferry routes in the 50 km SLVIA study area falling within the ZTV of Morgan Generation Assets. These potential impacts would be caused by visibility of some, or all, of the following MDS components (as summarised in Table 10.17):

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.11.2 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people onboard ferries using the following routes passing through the 50 km SLVIA study area.

10.8.11.3 Baseline conditions - Ferries keep to regular routes between specific ports. The main routes in the 50 km SLVIA Study Area are listed below and shown in Volume 6, Annex 7.1: Navigational risk assessment of the Environmental Statement: Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement.

- Liverpool to Dublin (Ireland) Ferry
- Liverpool to Douglas (Isle of Man) Ferry
- Heysham to Douglas (Isle of Man) Ferry.

10.8.11.4 Ferry passengers using these routes are assessed based on the experience of the journey taking account of the opportunities the vessel provides for appreciating the seascape and views during the trip.

10.8.11.5 The seascape context of both the above routes is influenced to varying degrees by existing offshore wind farms (West of Duddon Sands and Walney group to the north; Gwynt y Môr and Burbo Bank to the south), as well as offshore oil and gas infrastructure, and commercial shipping route to/from Merseyside ports.

10.8.11.6 There is negligible potential for significant visual effects on people onboard the Liverpool to Dublin ferry (representative viewpoint 21) at a distance of over 42 km to the south of Morgan Array Area and based on distance. This ferry route is excluded from further consideration.

10.8.11.7 Impact considerations - Analysis of the ZTV supported by fieldwork and the representative viewpoint visualisations indicate Morgan Generation Assets would be theoretically visible in excellent conditions for most of the Liverpool to Douglas and

Heysham to Douglas routes. At distances of approximately 20 km to 40 km Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70 % of the year). At over approximately 40 km away, it would only be visible in the most favourable conditions (i.e. excellent visibility >40 km approximately 28 % of the year). The wind turbines would be difficult to discern (or not visible) at other times of the year.

10.8.11.8 The representative viewpoints of relevance to this receptor type are listed below. Wirelines of the Morgan Generation Assets from the representative viewpoints 21, 22 and 23 are presented in Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement:

- Representative viewpoint 21 – Liverpool to Dublin ferry (Figure 8.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (42.9 km)
- Representative viewpoint 22 – Liverpool to Douglas ferry (Figure 9.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (19.1 km)
- Representative viewpoint 23 – Heysham to Douglas ferry (Figure 10.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (14.1 km).

Construction and decommissioning phases

Magnitude of impact

10.8.11.9 An impact will potentially arise on the views/visual amenity of people onboard the ferries plying the ferry routes identified above. This will be caused by visibility of the erection and dismantling of the wind turbines, the OSPs and the associated vessel and equipment activities/movements (described in Table 10.17 above) within the Morgan Array Area.

10.8.11.10 The impact is judged to be of short term duration (increasing during construction, decreasing during decommissioning), continuous in favourable conditions (increasing with proximity/decreasing with distance) and high reversibility. It is judged that the impact will affect receptors directly. The maximum magnitude of visual impact is therefore considered to be **medium** when the ferry is passing through or adjacent to the Morgan Array Area. At other points along the route farther away from the Morgan Array Area the magnitude of visual impact will be lower. This reflects the scale and extent of the construction and decommissioning activities that would be visible albeit of temporary and short term duration.

Sensitivity of the receptor

10.8.11.11 Views obtained by people onboard the ferries identified above are deemed to be of medium value and medium susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **medium**.

Significance of the effect

10.8.11.12 Overall, the magnitude of the visual impact during construction and decommissioning arising for people onboard the Liverpool to Douglas and Heysham to Douglas ferries passing through or immediately adjacent to Morgan Array Area is deemed to be **medium** and the sensitivity of the receptor is medium. The effect will be **moderate adverse**, and not significant. At other points along the route, farther away from Morgan Array Area, the significance of visual effect will be less, reducing to negligible and not significant.

Further mitigation and residual effect

10.8.11.13 No further mitigation is proposed.

Operations and maintenance phase

Magnitude of impact

10.8.11.14 A visual impact will potentially arise due to the operations and maintenance of Morgan Generation Assets on people onboard the Liverpool to Douglas and Heysham to Douglas ferries passing through or immediately adjacent to the Morgan Array Area. The impact will result from visibility of both moving and static project components occupying Morgan Array Area (as described in Table 10.17 above, namely: some or all of the rotating wind turbines, the OSPs and service vessels/helicopters,) which have the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.11.15 The impact is judged to be of long term duration, continuous in favourable conditions (increasing with proximity/decreasing with distance) and high reversibility. It is judged that the impact will affect views/visual amenity directly. The maximum magnitude of impact is therefore considered to be **medium to large** during the operations and maintenance phase where the ferries pass within or adjacent to the Morgan Array Area. At other points along the route farther away from the Morgan Array Area the magnitude of visual impact will be lower, reducing to negligible. Representative Viewpoint 22 (Figure 9.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) and Representative Viewpoint 23 (Figure 10.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) are representative of the judged visual change involved along the two ferry routes at approximate distances of 19.1 km and 14.1 km respectively from Morgan Array Area at the closest point. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.11.16 The sensitivity of the people onboard the ferries is as set out above for the construction and decommissioning phases, namely **medium**.

Significance of the effect

10.8.11.17 Overall, the magnitude of visual impact in relation to people onboard the Liverpool to Douglas and Heysham to Douglas ferries passing through or adjacent to Morgan Array Area on known routes during operations and maintenance is deemed to be medium to large and the sensitivity of the receptor is medium. The effects will be **moderate to major adverse.** These visual effects could be considered to be significant in close proximity to the Morgan Generation Assets wind turbines. At other points along the route, further away from the Morgan Array Area, the effects would diminish with increasing distance to the wind turbines and would not be significant.

Further mitigation and residual effect

10.8.11.18 No further mitigation is proposed.

10.8.12 Visual impacts – potential impacts on people using commercial shipping, recreational craft and fishing vessels

10.8.12.1 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from commercial shipping, recreational craft and fishing vessels in the 50 km SLVIA study area falling within the ZTV of Morgan Generation Assets. These potential impacts would be

caused by visibility of some, or all, of the following MDS components (as summarised in Table 10.17):

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.12.2 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people onboard using commercial shipping, recreational craft and fishing vessels navigating in the 50 km SLVIA study area, in particular those vessels navigating in the vicinity of Morgan Array Area (and passing through the array in the case of recreational craft).

Commercial shipping and fishing vessels

10.8.12.3 Baseline conditions and impact considerations

10.8.12.4 Commercial vessels keep to well-defined routes. Generally, these are either designated shipping lanes or regular passages.

10.8.12.5 Commercial fishing vessels follow different routes and patterns of movement depending on the type fishing being carried out and the fishing grounds being worked. In general, commercial fishing boats use specific harbours on the coast and, depending on the season, follow a range of routes to and from the various fishing grounds (Figure 15.3 of Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement). Commercial fishing harbours relevant to the 50 km SLVIA study area include Douglas on the Isle of Man and Liverpool in England.

10.8.12.6 There is very little potential for significant visual effects to be experienced by people onboard commercial shipping and fishing vessels and therefore these marine user receptors are assessed no further here.

Recreational craft

10.8.12.7 Baseline conditions - Recreational boating includes a range of pleasure craft both sailing and motor powered. Unlike commercial ships and ferries, pleasure craft tend not to follow regular routes. However, the points of departure and arrival are fixed, being generally safe harbours/anchorages at suitable locations on the coast. Due the coastline's profile, the shallow inshore waters and the tidal ranges, there are relatively few suitable harbours in the 50 km SLVIA study area. They are primarily: Douglas on the Isle of Man; Menai Strait (including Beaumaris) and Conwy in North Wales, and Liverpool in England. Journeys from these points, out a short distance and back, and in between some of them along the coast, is the norm. Thus, the pattern of use is generally dispersed and inshore, occurring within fairly close proximity to the safe harbours and along the intervening coasts of Wales, the Isle of Man and England. In addition, recreation boating is seasonal, typically confined to periods between late spring and early autumn (beginning of May to end of September). That said, within the wider seascape, there are some longer distance 'routes' used by a relatively small of pleasure craft operating in the 50 km SLVIA study area. These are predominantly offshore journeys undertaken by experienced sailors between the Wales, England, the Isle of Man, Scotland, and Ireland. Data relating to recreational boating activity is available from the Royal Yachting Association (RYA). Further information on vessel routes within the 50 km SLVIA study area can be found in Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement.

10.8.12.8 Impact considerations - Analysis of the ZTV indicates widespread visibility of Morgan Generation Assets from the areas of sea within the 50 km SLVIA study area. Consideration of the available RYA data relating to recreational boating (see Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement), informed by fieldwork and professional judgement indicates that a substantial proportion of recreational boating activity takes place close to safe harbours and the adjacent coast where potential visual impacts will be at a minimum. Broadly speaking, this means that at Douglas and Laxey, for example, and along the south-east coast of the Isle of Man (the closest recreational cruising grounds to Morgan Generation Assets), recreational craft will tend not to navigate closer than approximately 20 km to Morgan Array Area. One can reasonably assert, therefore, that only a small minority of recreational craft are likely to navigate close to or within Morgan Array Area. These considerations are factored into the assessment that follows.

Construction and decommissioning phases

Magnitude of impact

10.8.12.9 An impact will potentially arise on the views/visual amenity of people onboard recreational craft navigating in and around Morgan Array Area. This will be caused by visibility of the erection and dismantling of the wind turbines, the OSPs and the associated vessel and equipment activities/movements (described in Table 10.17 above) within the Morgan Array Area.

10.8.12.10 The impact is judged to be of short term duration (increasing during construction, decreasing during decommissioning), continuous in favourable conditions (increasing with proximity/decreasing with distance) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of maximum visual impact is therefore considered to be **small to medium** during the construction and decommissioning phases. This maximum impact will occur for a limited number of recreational craft are passing through or adjacent to the Morgan Array Area. At other points farther away from the Morgan Array Area the magnitude of visual impact will be lower. This reflects the scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.12.11 Views obtained by people onboard recreational craft are deemed to be of medium value and medium susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **medium**.

Significance of the effect

10.8.12.12 Overall, the magnitude of the visual impact during construction and decommissioning arising for people onboard recreational craft passing through or immediately adjacent to Morgan Array Area is deemed to be small to medium and the sensitivity of the receptor is medium. The temporary effects will be **minor to moderate adverse** and not significant. At other points, farther away from Morgan Array Area, the significance of visual effect will be less, reducing to negligible and not significant; the affect varies across the area based upon proximity.

Further mitigation and residual effect

10.8.12.13 No further mitigation is proposed.

Operations and maintenance phase

Magnitude of impact

10.8.12.14 A visual impact will potentially arise due to the operations and maintenance of Morgan Generation Assets on people recreational craft passing through or immediately adjacent to the Morgan Array Area, on known routes at the time of writing. The impact will result from visibility of both moving and static project components occupying Morgan Array Area (as described in Table 10.17 above, namely: some or all of the rotating wind turbines, the OSPs and service vessels/helicopters,) which have the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.12.15 The impact is judged to be of long term duration, continuous in favourable conditions (increasing with proximity/decreasing with distance) and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **medium** during the operations and maintenance phase where recreational craft pass through or adjacent to the Morgan Array Area. At other locations further away from the Morgan Array Area the magnitude of visual impact will be lower, reducing to negligible.

Sensitivity of the receptor

10.8.12.16 The sensitivity of the people onboard recreational craft is as set out above for the construction and decommissioning phases, namely **medium**.

Significance of the effect

10.8.12.17 Overall, the magnitude of visual impact in relation to people onboard recreational craft passing through or immediately adjacent to Morgan Array Area during operations and maintenance is deemed to be medium and the sensitivity of the receptor is medium. The effects will be **moderate adverse** and not significant. At other points along the route, farther away from the Morgan Array Area, the visual effect will be less and not significant.

Further mitigation and residual effect

10.8.12.18 No further mitigation is proposed.

10.8.12.19 Regarding potential visual impacts on people using commercial shipping, recreational craft and fishing vessels, residual effects overall, notwithstanding the conclusion reached above (namely **moderate adverse** effects), the vast majority of recreational craft users would experience low to negligible magnitudes of visual change, and hence no significant visual effects, due to implementation of Morgan Offshore Wind Project. This assessment is based on analysis of the available RYA data (see Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement) informed by fieldwork and professional judgement, which indicates that a very substantial proportion of recreational boating activity takes place close to safe harbours and the adjacent coast where potential visual impacts will be at a minimum.

10.8.13 Visual impacts at representative viewpoints

10.8.13.1 The following section of this report presents the visual impact assessment at each representative viewpoint. Refer to accompanying figures in Volume 4, Annex: 10.6: Seascape visualisations of the Environmental Statement as tabulated in Table 10.19.

Table 10.19: List of photomontages and wirelines from representative viewpoints.

Figure	Viewpoint
Figure 1.1:	Viewpoint 14: Cistercian Way, Walney Island
Figure 1.2:	Viewpoint 14: Cistercian Way, Walney Island – Wireline and Photomontage
Figure 2.1:	Viewpoint 15 (Day): Blackpool, North Pier – Baseline photography
Figure 2.2:	Viewpoint 15 (Night): Blackpool, North Pier – Baseline photography
Figure 2.3:	Viewpoint 15: Blackpool, North Pier – Wireline and Photomontage
Figure 2.4:	Viewpoint 15: (Night) Blackpool, North Pier – Wireline and Photomontage
Figure 3.1:	Viewpoint 16: England Coast Path, Lake District National Park – Baseline photography
Figure 3.2:	Viewpoint 16: England Coast Path, Lake District National Park– Wireline and Photomontage
Figure 4.1:	Viewpoint 17: Buck Barrow, Lake District National Park – Baseline photography
Figure 4.2:	Viewpoint 17: Buck Barrow, Lake District National Park – Wireline and Photomontage
Figure 5.1:	Viewpoint 18: Herring Tower trig Point, Langness Peninsula, Isle of Man – Baseline photography
Figure 5.2:	Viewpoint 18: Herring Tower Trig Point, Langness Peninsula, Isle of Man – Wireline and Photomontage
Figure 6.1:	Viewpoint 19: Panoramic Viewpoint at Arch Southwest of Douglas Head, Isle of Man – Baseline photography
Figure 6.2:	Viewpoint 19: Panoramic Viewpoint at Arch Southwest of Douglas Head, Isle of Man – Wireline and Photomontage
Figure 7.1:	Viewpoint 20: Snaefell summit station trig point, Isle of Man – Baseline photography
Figure 7.2:	Viewpoint 20: Snaefell, summit Station Trig Point, Isle of Man – Wireline and Photomontage
Figure 8.1:	Viewpoint 21: Liverpool to Dublin (Ireland) Ferry – Wireline
Figure 9.1:	Viewpoint 22: Liverpool to Douglas (Isle of Man) Ferry – Wireline
Figure 10.1:	Viewpoint 23: Heysham to Douglas (Isle of Man) Ferry – Wireline
Figure 11.1:	Viewpoint 42: Maughold Head Lighthouse, Isle of Man – Baseline photography
Figure 11.2:	Viewpoint 42: Maughold Head Lighthouse, Isle of Man – Wireline and Photomontage
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Visual effects – Potential effects on people at Representative Viewpoint 14 – Cistercian Way, Walney Island, Cumbria

10.8.13.2 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.3 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.4 This viewpoint is located on Cistercian Way/England Coast Path in Access Land. A shoreline panoramic view south-west from the settled coastal landscape of Walney Island within NCA 7 West Cumbria Coastal Plain is available. MCA 32 Walney Coastal Waters and Duddon Estuary forms the seascape in the middle/background with the characteristic gently shelving sandy shore in the foreground. Barrow, Ormonde, West of Duddon Sands and Walney operational offshore windfarms are visible on the near and far horizons. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.5 Analysis of the visualisation supported by fieldwork indicates visibility of Morgan Generation Assets in the distance occupying approximately 26% (23°) of the 90° HFoV. The turbines would be barely visible on the distant western horizon, directly beyond and behind existing offshore wind farms, in particular, Walney and Walney Extension. At approximately 37.5 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70 % of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.6 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people using the Cistercian Way/England Coast Path and Access Land at this location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at an approximate distance of 37.5 km.

10.8.13.7 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.8 The views are deemed to be of high value and the viewer is considered to be of high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.9 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible and the sensitivity of the receptor is high. The temporary effects will be **negligible** adverse and not significant.

Operations and maintenance phase

Magnitude of impact

10.8.13.10 A visual impact will potentially arise at this viewpoint which is representative of people using the Cistercian Way/England Coast Path and Access Land at this location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs), which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.11 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of

impact is therefore considered to be **negligible** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.12 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.13 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 37.5 km offshore, is deemed to be small. The sensitivity of the receptor is high. The effects will be **negligible adverse** and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 15 – Blackpool North Pier, Lancashire

10.8.13.14 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.15 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.16 A framed panoramic view is available from Blackpool North Pier looking west out over MCA 34 Blackpool Coastal Waters and Ribble Estuary forming the middle/background seascape in the view. Blackpool is an iconic Victorian resort seafront set within an urban coastal landscape context, located within NCA 32 Lancashire and Amounderness Plain. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.17 Fieldwork and analysis of the visualisation indicates distant visibility of Morgan Generation Assets occupying approximately 15% (14°) of the 90° HFoV. The turbines would be visible on the distant northwest horizon, set within an open seascape relatively free of offshore infrastructure. At an approximate distance of 50.2 km, Morgan Generation Assets would only be visible in the most favourable conditions (i.e. excellent visibility >40 km approximately 28% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.18 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people using the seafront/pier at this location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 50.2 km.

10.8.13.19 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.20 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.21 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible and the sensitivity of the receptor is high. The temporary effects will be **negligible adverse** and not significant.

Operations and maintenance phase

Magnitude of impact

10.8.13.22 A visual impact will potentially arise at this viewpoint which is representative of people using the seafront/pier at this location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs), which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.23 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **negligible** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.24 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.25 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 50.2 km offshore, is deemed to be negligible. The sensitivity of the receptor is high. The effects will be **negligible adverse** and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 16 – England Coast Path, Lake District National Park

10.8.13.26 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.27 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.28 This viewpoint is located on Cumbria Coastal Way/England Coast Path in Access Land within Lake District National Park. A shoreline panoramic view south-west is available from within NCA 7 West Cumbria Coastal Plain. MCA 31 St Bees to Haverigg Coastal Waters forms the middle/background seascape with the characteristic, gently shelving, rocky/sandy shore in the foreground. Ormonde and Walney operational offshore windfarms are visible on the near and far horizons with Barrow and West of Duddon Sands also in view to the south. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.29 Analysis of the visualisation supported by fieldwork indicates visibility of Morgan Generation Assets in the far distance occupying approximately 33 % (29°) of the 90° HFoV. The turbines would be visible on the distant south-western horizon, beyond and behind existing offshore wind farms, in particular, Walney and Walney Extension. At approximately 40.7 km, Morgan Generation Assets would only be visible in the most favourable conditions (i.e. excellent visibility >40 km approximately 28 % of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.30 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people using the Cumbria Coastal Way/England Coast Path in Access Land within Lake District National Park at this location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 40.7 km.

10.8.13.31 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.32 The views and visual amenity of people at this viewpoint is deemed to be of very high value and very high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **very high**.

Significance of the effect

10.8.13.33 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible and the sensitivity of the receptor is very high. The temporary effects will be **minor adverse**, and not significant.

Operations and maintenance phase

Magnitude of impact

10.8.13.34 A visual impact will potentially arise at this viewpoint which is representative of people using the Cumbria Coastal Way/England Coast Path in Access Land within Lake District National Park at this location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.35 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **negligible** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.36 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **very high**.

Significance of the effect

10.8.13.37 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 40.7 km offshore, is deemed to be negligible. The sensitivity of the receptor is very high. The effects will be **minor adverse** and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 17 –Buck Barrow, Lake District National Park

10.8.13.38 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.39 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.40 This viewpoint is located in Access Land within Lake District National Park. A wide ranging, elevated panoramic view south-west is available from within NCA 8 Cumbria High Fells across MCA 31 St Bees to Haverigg Coastal Waters and MCA 32 Walney Coastal Waters and Duddon Estuary which form the seascape below in the middle ground. MCA 38 Irish Sea South makes up the background seascape. Ormonde, Walney, West of Duddon Sands and Barrow operational offshore windfarms are visible spreading across both MCA 32 and MCA 38. The Isle of Man is visible on the horizon beyond right of frame. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.41 Analysis of the visualisation supported by fieldwork indicates visibility of Morgan Generation Assets in the far distance occupying approximately 28% (25°) of the 90° HFoV. The turbines would be visible on the distant horizon, behind the existing offshore wind farms (Ormonde, Walney and West of Duddon Sands). At an approximate distance of 48.7 km, Morgan Generation Assets would only be visible in the most favourable conditions (i.e. excellent visibility >40 km approximately 28 % of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.42 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people using the Access Land/National Park at this location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 48.7 km.

10.8.13.43 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.44 The views/visual amenity of people at this viewpoint is deemed to be of very high value and very high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **very high**.

Significance of the effect

10.8.13.45 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible and the sensitivity of the receptor is very high. The temporary effects will be **minor adverse** and not significant.

Operations and maintenance phase

Magnitude of impact

10.8.13.46 A visual impact will potentially arise at this viewpoint which is representative of people using the Access Land/National Park at this location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.47 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **negligible** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.48 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **very high**.

Significance of the effect

10.8.13.49 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 48.7 km offshore, is deemed to be negligible. The sensitivity of the receptor is very high. The effects will be **minor adverse** and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 18 – Herring Tower trig point, Langness Peninsula, Isle of Man

10.8.13.50 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.51 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.52 This viewpoint is located on a PROW at local landmark. Wide coastal panoramic views east from Langness Peninsula across MCA A Dreswick Point to Maughold Head, Isle of Man southeast Inshore Waters (RPS defined) are available. A rocky, relatively undeveloped coast. The inshore waters are animated by coastal commercial shipping/ferries, fishing vessels and recreational sailing. The west edge of Walney offshore wind farm (Walney Extension) is visible on the far horizon in the most favourable conditions. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.53 Fieldwork and analysis of the visualisation indicates visibility of Morgan Generation Assets on the horizon occupying approximately 27% (24°) of the 90° HFoV, appearing closer than the existing Walney Extension offshore wind farm. The turbines would be set within a seascape animated intermittently by commercial shipping/ferries. At a closest distance of approximately 28.1 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70 % of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.54 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people using the PROW at this location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 28.1 km.

10.8.13.55 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible to small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.56 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.57 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible to small and the sensitivity of the receptor is high. The temporary effect will be **minor adverse and not significant**.

Operations and maintenance phase

Magnitude of impact

10.8.13.58 A visual impact will potentially arise at this viewpoint which is representative of people using the PROW at this location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.59 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.60 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.61 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 28.1 km offshore, is deemed to be small. The sensitivity of the receptor is high. The effects will be **minor to moderate adverse** and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 19 – Panoramic viewpoint at Arch southwest of Douglas Head, Isle of Man

10.8.13.62 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.63 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.64 This viewpoint is located at a public binocular viewpoint facility. Broad panoramic views east across Douglas Bay fringed by Douglas settlement are available. MCA A Dreswick Point to Maughold Head, Isle of Man southeast Inshore Waters (RPS defined) forms the wider seascape. The adjacent inshore waters are animated by coastal commercial shipping, mainland ferries, fishing vessels and recreational sailing.

The west edge of Walney offshore wind farm (Walney Extension) is visible on the far horizon in the left part of the view. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.65 Analysis of the visualisation supported by fieldwork indicates visibility of Morgan Generation Assets in the distance occupying approximately 27% (25°) of the 90° HFoV. The turbines would be visible on the distant horizon, appearing closer than the existing Walney Extension offshore wind farm, set within a seascape animated by commercial shipping/ferries. At a closest distance of approximately 22.5 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.66 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people at the public binocular viewpoint and this part of Douglas Head. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 22.5 km to representative viewpoint 19.

10.8.13.67 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.68 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.69 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be small and the sensitivity of the receptor is high. The temporary effect will be **minor to moderate adverse** and not significant.

Operations and maintenance phase

Magnitude of impact

10.8.13.70 A visual impact will potentially arise at this viewpoint which is representative of people at the public binocular viewpoint and this part of Douglas Head due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the

stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.71 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small to medium** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.72 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.73 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 22.5 km offshore, is deemed to be small to medium. The sensitivity of the receptor is high. The effect will be **moderate adverse and not significant**.

Visual effects – Potential effects on people at Representative Viewpoint 20 – Snaefell, summit station trig point, Isle of Man

10.8.13.74 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.75 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.76 This viewpoint is located at an elevated publicly accessible local landmark. Wide ranging, inland panoramic views south-east from adjacent to Snaefell summit station/café are available. The descending slopes in fore/middle ground comprise the Isle of Man LCA A1 Northern Uplands and LCA B4 Laxey Glen with LCA E5 Laxey Bay below. MCA A Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters (RPS defined) forms wider seascape with MCA 38 Irish Sea South (England) making up the background seascape. The adjacent waters are animated by coastal commercial shipping, mainland ferries, fishing vessels and recreational sailing. Several operational offshore wind farms are visible including Walney Extension/Walney and West of Duddon Sands to the east, and Gwynt y Môr to the south-east. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.77 Fieldwork and analysis of the visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 26% (23°) of the 90° HFoV. The turbines would be visible in the far distance, appearing closer than the existing Walney offshore wind farm group, set within a seascape animated by commercial shipping/ferries. At approximately 31.2 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70 % of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.78 An impact will potentially arise during construction and decommissioning at this viewpoint, which is representative of people at this popular, elevated location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 31.2 km.

10.8.13.79 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible to small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.80 The views/visual amenity of people at this viewpoint is deemed to be of very high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.81 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible to small and the sensitivity of the receptor is high. The temporary effects will be **minor adverse** and not significant.

Operations and maintenance phase

Magnitude of impact

10.8.13.82 A visual impact will potentially arise at this viewpoint which is representative of people at this popular, elevated location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/ landscape.

10.8.13.83 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small** during the operations and maintenance

phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.84 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.85 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 31.2 km offshore, is deemed to be small. The sensitivity of the receptor is high. The effect will be **minor to moderate adverse and not significant**.

Visual effects – Potential effects on people at Representative Viewpoint 21 – Liverpool to Dublin (Ireland) Ferry

10.8.13.86 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.87 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.88 This view is located approximately 40 km south of Morgan Array Area, 15 km north of Great Orme and 30 km east of Point Lynas, Anglesey. The North Wales coast with Eryri mountain range beyond is visible to the south. On favourable weather days, the north coast of Anglesey is in view farther to the west. The Isle of Man is a distant presence on the horizon to the northwest in the most favourable conditions. Gwynt y Môr offshore wind farm lies 10 km to the east with oil and gas infrastructure. Burbo Bank is visible beyond. The ferry route passes through/close to these existing offshore wind farms, the influence of which diminishes farther west travelling towards Dublin and vice versa on the return journey. Commercial shipping en route to/from Merseyside ports (some vessels moored waiting for Liverpool pilot) is a constant feature of the seascape at this point, and of the ferry route. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.89 Analysis and fieldwork indicates distant visibility of Morgan Generation Assets to the north. The closest turbine would be approximately 42.9 km distant. Views to the west, south and east would remain unchanged. Note there is only a wireline visualisation for this viewpoint.

Construction and decommissioning phases

Magnitude of impact

10.8.13.90 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of ferry passengers in transit at this location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area, the closest turbine being situated approximately 42.9 km away.

10.8.13.91 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.92 The views/visual amenity of people (ferry passengers in transit) at this viewpoint is deemed to be of medium value and medium susceptibility to the proposed. The sensitivity of the receptor is therefore, considered to be **medium**.

Significance of the effect

10.8.13.93 Overall, the magnitude of the visual impact experienced by ferry passengers in transit at this location during construction and decommissioning is deemed to be negligible and the sensitivity of the receptor is medium. The temporary effect will be **negligible adverse** and not significant. This assessment considers that ferry passengers in transit are generally confined to the cabin/interior of the vessel.

Operations and maintenance phase

Magnitude of impact

10.8.13.94 A visual impact will potentially arise at this viewpoint which is representative of ferry passengers in transit at this location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs), which has the potential to affect peoples' appreciation of the surrounding seascape/landscape in one direction.

10.8.13.95 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **negligible** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.96 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **medium**.

Significance of the effect

10.8.13.97 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by ferry passengers in transit at this location, approximately 42.9 km from the closest turbine, is deemed to be negligible. The sensitivity of the receptor is medium. The effects will be **negligible adverse** and not significant. This assessment considers that ferry passengers in transit are generally confined to the cabin/interior of the vessel.

Visual effects – Potential effects on people at Representative Viewpoint 22 – Liverpool to Douglas (Isle of Man) Ferry

10.8.13.98 Visual impacts will potentially be experienced by people during the construction, operations/maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.99 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.100 This viewpoint is within MCA 38 Irish Sea South approximately 19.1 km south-east of Morgan Array Area about halfway between Liverpool and Douglas. West of Duddon Sands and Walney existing Offshore Wind Farms feature in views to the northeast. Static sea infrastructure and offshore wind farms, including Gwynt y Môr, off the North Wales coast are visible to the south. Isle of Man is barely discernible on the horizon to the northwest. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.101 Morgan Array Area is located to the north/west of the ferry route at this point. The closest turbine would be approximately 19.1 km distant. Views to the west, south and east would remain unchanged. Note there is only a wireline visualisation for this viewpoint.

Construction and decommissioning phases

Magnitude of impact

10.8.13.102 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of ferry passengers in transit at this location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area, the closest turbine being situated approximately 19.1 km away.

10.8.13.103 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **small** during the construction and decommissioning phases. This

reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.104 The views/visual amenity of people (ferry passengers in transit) at this viewpoint is deemed to be of medium value and medium susceptibility to the proposed. The sensitivity of the receptor is therefore, considered to be **medium**.

Significance of the effect

10.8.13.105 Overall, the magnitude of the visual impact experienced by ferry passengers in transit at this location during construction and decommissioning is deemed to be small and the sensitivity of the receptor is medium. The temporary effects will be **minor adverse** and not significant. This assessment considers that ferry passengers in transit are generally confined to the cabin/interior of the vessel.

Operations and maintenance phase

Magnitude of impact

10.8.13.106 A visual impact will potentially arise at this viewpoint which is representative of ferry passengers in transit at this location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape in one direction.

10.8.13.107 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small to medium** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.108 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **medium**.

Significance of the effect

10.8.13.109 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by ferry passengers in transit at this location, approximately 19.1 km from the closest turbine, is deemed to be small to medium. The sensitivity of the receptor is medium. The effect will be **minor to moderate adverse and not significant**.

Visual effects – Potential effects on people at Representative Viewpoint 23 – Heysham to Douglas (Isle of Man) Ferry

10.8.13.110 Visual impacts will potentially be experienced by people during the construction, operations/maintenance, and decommissioning phases on views from this viewpoint

falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.111 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.112 This viewpoint is located within MCA 38 Irish Sea South approximately 14.1 km east of Morgan Array Area about halfway between Heysham and Douglas. The West of Duddon Sands and Walney Offshore Wind Farms form a constant feature within the seascape to the north for much of the middle section of the ferry journey. Static marine infrastructure (e.g. sea platforms) is visible to the south; the North Wales coast and associated offshore wind farms (including Gwynt y Môr and Burbo Bank) are only discernible in very clear conditions at long distance.

Description of visual change

10.8.13.113 Morgan Array Area is located to the west of the ferry route at this point. All the turbines would be visible in favourable conditions/visibility at approximately 14.1 km distance to the west. Analysis of the visualisation supported by fieldwork indicates distant visibility of Morgan Generation Assets. Views to the north, east and south would remain unchanged. Note there is only a wireline visualisation for this viewpoint.

Construction and decommissioning phases

Magnitude of impact

10.8.13.114 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of ferry passengers in transit at this location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area, the closest turbine being situated approximately 14.1 km away.

10.8.13.115 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.116 The views/visual amenity of people (ferry passengers in transit) at this viewpoint is deemed to be of medium value and medium susceptibility to the proposed. The sensitivity of the receptor is therefore, considered to be **medium**.

Significance of the effect

10.8.13.117 Overall, the magnitude of the visual impact experienced by ferry passengers in transit at this location during construction and decommissioning is deemed to be small and the sensitivity of the receptor is medium. The temporary effects wills be **minor adverse**

and not significant. This assessment considers that ferry passengers in transit are generally confined to the cabin/interior of the vessel.

Operations and maintenance phase

Magnitude of impact

10.8.13.118 A visual impact will potentially arise at this viewpoint which is representative of ferry passengers in transit at this location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape in one direction.

10.8.13.119 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **medium** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.120 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **medium**.

Significance of the effect

10.8.13.121 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by ferry passengers in transit at this location, approximately 14.1 km from the closest turbine, is deemed to be medium. The sensitivity of the receptor is medium. The effect will be **moderate adverse and not significant**. This assessment considers that ferry passengers in transit are generally confined to the cabin/interior of the vessel.

Visual effects – Potential effects on people at Representative Viewpoint 42 – Maughold Head Lighthouse, Isle of Man

10.8.13.122 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.123 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.124 This viewpoint is located at a local monument/landmark. An open, elevated view south-east from the headland looking out across MCA A Dreswick Point to Maughold Head, Isle of Man southeast Inshore Waters (RPS defined) is available. The coastline (Isle

of Man LCA H5 Maughold Head) is rugged with steep cliffs. The inshore waters are animated by coastal commercial shipping/ferries, fishing vessels and recreational sailing. The western part of Walney offshore wind farm (Walney Extension) is visible on the far horizon. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.125 Analysis of the visualisation supported by fieldwork indicates visibility of Morgan Generation Assets in the distance occupying approximately 35% (31°) of the 90° HFoV. The turbines would be visible on the distant horizon appearing closer than the existing Walney Extension offshore wind farm group, set within a seascape animated by commercial shipping/ferries. At an approximate distance of 28.5 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.126 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people at/in the vicinity of the local monument/landmark. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within part of the Morgan Array Area situated offshore at distances of approximately 28.5 km.

10.8.13.127 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible to small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.128 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.129 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible to small and the sensitivity of the receptor is high. The effect will be **minor adverse and not significant**.

Operations and maintenance phase

Magnitude of impact

10.8.13.130 A visual impact will potentially arise at this viewpoint which is representative of people at/in the vicinity of the local monument/landmark due to the operations and maintenance of Morgan Generation Assets. The impact will result from partial visibility of both moving and static project components occupying the Morgan Array Area

(namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs), which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.131 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small to medium** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.132 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.133 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 28.5 km offshore, is deemed to be small. The sensitivity of the receptor is high. The effects will be **moderate** adverse and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 43 – Old Laxey, Isle of Man

10.8.13.134 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.135 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.136 This viewpoint is located on a public seafront/beach. Framed, views in a southeast direction are available from the enclosed Laxey Bay looking out across MCA A Dreswick Point to Maughold Head, Isle of Man southeast Inshore Waters (RPS defined). The coast beyond Laxey itself is relatively undeveloped. The inshore waters are animated by coastal commercial shipping/ferries, fishing vessels and recreational sailing in summer. The western part of Walney offshore wind farm (Walney Extension) is visible on the far horizon. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.137 Analysis of the visualisation supported by fieldwork indicates visibility of Morgan Generation Assets in the distance occupying approximately 31% (28°) of the 90° HFoV. The turbines would be visible on the distant horizon, appearing closer than the existing Walney Extension offshore wind farm, set within a seascape animated by commercial shipping/ferries. At an approximate distance of 24.9 km, Morgan

Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.138 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people using the seafront/beach at this location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within part of the Morgan Array Area situated offshore at distances of approximately 24.9 km.

10.8.13.139 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.140 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.141 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be small and the sensitivity of the receptor is high. The temporary effects will be **minor to moderate adverse** and not significant.

Operations and maintenance phase

Magnitude of impact

10.8.13.142 A visual impact will potentially arise at this viewpoint which is representative of people using the seafront/beach at this location due to the operations and maintenance of Morgan Generation Assets. The impact will result from partial visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.143 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small to medium** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.144 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.145 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 24.9 km offshore, is deemed to be small to medium. The sensitivity of the receptor is high. The effects will be **moderate adverse** and not significant. This assessment takes account of the popularity of the location and framed nature of the view.

Visual effects – Potential effects on people at Representative Viewpoint 44 – Slieau Ruy Cairn, Isle of Man

10.8.13.146 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on the view from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.147 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.148 This viewpoint is located on land with informal public access (Neither the CROW Act 2000 nor Scotland's 'right to roam' apply in Isle of Man to date). Elevated, inland panoramic views south-east across Isle of Man LCA A1 Northern Uplands towards Douglas settlement on the coast below (LCA E3 Douglas Bay) are available. The surrounding seascape comprises MCA A Dreswick Point to Maughold Head, Isle of Man southeast Inshore Waters (RPS defined) with MCA 38 Irish Sea South (England) beyond. The inshore and offshore waters are animated by coastal commercial shipping/ferries, fishing vessels and recreational sailing. Several offshore wind farms are visible including Walney/Walney Extension and West of Duddon Sands in the east and Gwynt y Môr to the southwest. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.149 Fieldwork and analysis of the visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 21% (20°) of the 90° HFoV. The turbines would be visible in the far distance, in the context of an extensive coastal landscape in the foreground, set within a seascape animated by commercial shipping/ferries. At approximately 32.1 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.150 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people at this elevated location. This will be

caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 32.1 km.

10.8.13.151 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible to small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.152 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.153 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible to small and the sensitivity of the receptor is high. The temporary effects will be **minor adverse** and not significant.

Operations and maintenance phase

Magnitude of impact

10.8.13.154 A visual impact will potentially arise at this viewpoint which is representative of people at this elevated location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels / helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.155 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.156 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.157 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 32.1 km offshore, is deemed to be small. The sensitivity of the receptor is high. The effects will be **minor** adverse and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 45 – South Barrule Cairn, Isle of Man

10.8.13.158 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.159 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.160 This viewpoint is located on land with informal public access (Neither the CROW Act 2000 nor Scotland's 'right to roam' apply in Isle of Man to date). Elevated, inland panoramic views south-east across Isle of Man LCA A2 Southern Uplands towards the coast below including Santon Head (LCA D13 Santon and LCA E2 Port Soderick) are available. The surrounding seascape comprises MCA A Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters (RPS defined) with MCA 38 Irish Sea South (England) beyond. The inshore and offshore waters are animated by coastal commercial shipping/ferries, fishing vessels and recreational sailing. Several offshore wind farms are visible including Walney/Walney Extension and West of Duddon Sands in the east and Gwynt y Môr to the southwest. In the most favourable visibility, the North Wales coast including Eryri can be seen on the far horizon. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.161 Analysis of the visualisation supported by fieldwork indicates visibility of Morgan Generation Assets in the distance occupying approximately 20% (18°) of the 90° HFoV. The turbines would be visible in the far distance, in the context of an extensive coastal landscape in the foreground, set within a seascape animated by commercial shipping/ferries. At approximately 34.2 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.162 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people at this elevated location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 34.2 km.

10.8.13.163 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore

considered to be **negligible to small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.164 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.165 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible to small and the sensitivity of the receptor is high. The temporary effect will be **minor adverse and not significant**.

Operations and maintenance phase

Magnitude of impact

10.8.13.166 A visual impact will potentially arise at this viewpoint which is representative of people at this elevated location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.167 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.168 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.169 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 34.2 km offshore, is deemed to be small. The sensitivity of the receptor is high. The effects will be **minor** adverse and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 46 – Port St. Mary, Isle of Man

10.8.13.170 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)

- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.171 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.172 This viewpoint is located at a public seafront/beach on a local heritage trail. Framed, coastal panoramic views looking south-east from the TSS Mona's Queen III Anchor Memorial across Isle of Man E9 Bay Ny Carrickey are available. MCA A Dreswick Point to Maughold Head, Isle of Man southeast Inshore Waters (RPS defined) forms the wider, open seascape beyond. A settled bay enclosed by relatively undeveloped coast. The inshore waters are animated by coastal commercial shipping/ferries, fishing vessels and recreational sailing. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.173 Fieldwork and analysis of the visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 22% (20°) of the 90° HFoV. The turbines would be barely visible on the distant horizon, set within a seascape occasionally animated by commercial shipping/ferries. Some of the wind turbines would be partially hidden by existing landform. At approximately 35.8 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.174 An impact will potentially arise during construction and decommissioning at this viewpoint. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 35.8 km.

10.8.13.175 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible to small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.176 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.177 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible to small and the

sensitivity of the receptor is high. The temporary effect will be **minor adverse and not significant**.

Operations and maintenance phase

Magnitude of impact

10.8.13.178 A visual impact will potentially arise at this viewpoint due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.179 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **negligible to small** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.180 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.181 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 35.8 km offshore, is deemed to be small. The sensitivity of the receptor is high. The effects will be **minor** adverse and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 49 – Douglas Promenade, Isle of Man

10.8.13.182 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.183 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.184 This viewpoint is located on a public seafront/beach. Framed, panoramic views south-east from the Douglas promenade out across the enclosed Douglas Bay with MCA A Dreswick Point to Maughold Head, Isle of Man southeast Inshore Waters (RPS defined) forming the wider seascape are available. Douglas settlement extends around the enclosing coastline/headlands. Douglas Bay and adjacent inshore waters are animated by mainland ferries, coastal commercial shipping, fishing vessels and

recreational sailing in summer. The western edge of Walney offshore wind farm (Walney Extension) is visible on the far horizon left of frame. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.185 Analysis of the visualisation supported by fieldwork indicates visibility of Morgan Generation Assets in the distance occupying approximately 27% (25°) of the 90° HFoV. The turbines would be visible on the distant horizon, appearing closer than the existing Walney Extension offshore wind farm group, set within a seascape animated by commercial shipping/ferries and other craft. At approximately 24 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.186 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people using the seafront/beach at this location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within part of the Morgan Array Area situated offshore at distances of approximately 24 km.

10.8.13.187 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.188 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.189 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be small and the sensitivity of the receptor is high. The temporary effects will be **minor to moderate adverse** and not significant.

Operations and maintenance phase

Magnitude of impact

10.8.13.190 A visual impact will potentially arise at this viewpoint which is representative of people using the seafront/beach at this location due to the operations and maintenance of Morgan Generation Assets. The impact will result from partial visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs)

which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.191 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small to medium** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.192 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.193 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 24 km offshore, is deemed to be small to medium. The sensitivity of the receptor is high. The effects will be **moderate adverse** and not significant. This assessment takes account of the popularity of the location and framed nature of the view.

Visual effects – Potential effects on people at Representative Viewpoint 50 – Coast path at the Chasms/Sugarloaf, Isle of Man

10.8.13.194 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.195 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.196 Open views from Raad ny Foillan Coastal Path near The Chasms and Sugarloaf looking along the south-eastern coast of the Isle of Man to the sea beyond are available. The coastline at Port St. Mary Point, the bay at Castletown and the arc of Langness feature in the distance in the left part of the view. Rough grassland and stone wall enclosed pasture make up the foreground of the view. The inshore waters are animated by commercial shipping/ferries with the addition of recreational craft during summer. The western edge of Walney Extension is visible on the far horizon left of frame. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.197 Fieldwork and analysis of the visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 22% (20°) of the 90° HFoV. The turbines would be visible beyond the intervening coastline on the distant horizon,

appearing closer than the existing Walney Extension offshore wind farm group, set within a seascape occasionally animated by commercial shipping/ferries. At approximately 37 km, Morgan Generation Assets would be visible in favourable conditions (i.e. very good visibility 20 km to 40 km approximately 70% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.198 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people at this elevated location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 37 km.

10.8.13.199 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible to small** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.200 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.201 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible to small and the sensitivity of the receptor is high. The temporary effect will be **minor adverse and not significant**.

Operation and Maintenance phases

Magnitude of impact

10.8.13.202 A visual impact will potentially arise at this viewpoint which is representative of recreational visitors to this location due to the operations and maintenance of Morgan Generation Assets. The impact will result from partial visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs), which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.203 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **small** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.204 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.205 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 37 km offshore, is deemed to be small. The sensitivity of the receptor is high. The effects will be **minor to moderate** adverse and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 51 – Blackpool Tower

10.8.13.206 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.207 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.208 A panoramic view is available of the Irish Sea and the coastline and beach at Blackpool through a perspex screen from the top of the Blackpool Tower. Existing offshore wind farms at Walney and West of Duddon Sands are barely visible. Shipping and ferries are visible on an intermittent basis. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.209 Fieldwork and analysis of the visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 15% (13°) of the 90° HFoV. The turbines would be barely visible beyond the intervening coastline on the distant horizon with the existing Walney Extension offshore wind farm group located closer to the viewer. At approximately 50.7 km, Morgan Generation Assets would only be visible in the most favourable conditions (i.e. excellent visibility >40 km approximately 28% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.210 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people at this elevated location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 50.7 km.

10.8.13.211 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.212 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.213 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible and the sensitivity of the receptor is high. The temporary effect will be **negligible** adverse and not significant.

Operations and maintenance phase

Magnitude of impact

10.8.13.214 A visual impact will potentially arise at this viewpoint which is representative of people at this elevated location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs), which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.215 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **negligible** during the operations and maintenance phase. This reflects the scale of the change in the view through a perspex screen and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.216 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.217 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 50.7 km offshore, is deemed to be negligible. The sensitivity of the receptor is high. The effects will be **negligible adverse** and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 55 – Trwyn Eilian (Point Lynas), Isle of Anglesey NL

10.8.13.218 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this

viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.219 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.220 Expansive uninterrupted panoramic views are available of The Irish Sea from the coastal promontory at Point Lynas. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.221 Fieldwork and analysis of the visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 27% (24°) of the 90° HFoV. The turbines would be barely visible on the horizon within The Irish Sea with occasional sea traffic associated with, commercial shipping/ferries. At approximately 59 km, Morgan Generation Assets would only be visible in the most favourable conditions (i.e. excellent visibility >40 km approximately 28% of the year). The turbines would be difficult to discern or not visible at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.222 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people at the coast. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 59 km.

10.8.13.223 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.224 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**.

Significance of the effect

10.8.13.225 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible and the sensitivity of the receptor is high. The temporary effect will be **negligible adverse** and not significant.

Operations and maintenance phase

Magnitude of impact

10.8.13.226 A visual impact will potentially arise at this viewpoint which is representative of people at this coastal location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.227 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is considered to be **negligible** during the operations and maintenance phase. The scale of the change to the existing view will be very limited (wind turbine tips barely visible) and subject to favourable weather conditions. There will be many occasions where Morgan Generation Assets will not be visible due to weather and distance.

Sensitivity of the receptor

10.8.13.228 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.229 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 59 km offshore, is deemed to be negligible. The sensitivity of the receptor is high. The effects will be **negligible adverse** and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 58 – Muncaster Fell, Lake District National Park

10.8.13.230 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.231 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.232 Panoramic views are available in a south westerly direction of the Irish Sea from this elevated location at Muncaster Fell. The views are attained with the lower lying pastoral farmland in the foreground and plantation coniferous forestry. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.233 Fieldwork and analysis of the visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 28% (25°) of the 90° HFoV. The wind turbines would be barely visible on the distant horizon further away and behind existing offshore wind farms (Walney and West of Duddon Sands), set within a seascape occasionally animated by commercial shipping/ferries. At approximately 52.3 km, Morgan Generation Assets would only be visible in the most favourable conditions (i.e. excellent visibility >40 km approximately 28% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.234 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people at this elevated location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 52.3 km.

10.8.13.235 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.236 The views/visual amenity of people at this viewpoint is deemed to be of high value and high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **high**. Although located in an internationally designated landscape, the sensitivity assessment takes account of the detracting influence of the commercial forestry in the foreground.

Significance of the effect

10.8.13.237 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible and the sensitivity of the receptor is high. The temporary effect will be **negligible adverse and not significant**.

Operations and maintenance phase

Magnitude of impact

10.8.13.238 A visual impact will potentially arise at this viewpoint which is representative of people at this elevated location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.239 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of

impact is therefore considered to be **negligible** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.240 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **high**.

Significance of the effect

10.8.13.241 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint is deemed to be negligible. The sensitivity of the receptor is high. The effects will be **negligible adverse** and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 59 – Black Combe, Lake District National Park

10.8.13.242 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.243 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.244 Panoramic views are available from the grassy summit of Black Combe, at 600m AOD of the Irish Sea. Uninterrupted views towards the Morgan Array Area are available with existing offshore windfarms in the foreground including Walney and West of Duddon Sands. The existing view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.245 Fieldwork and analysis of the visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 30% (27°) of the 90° HFoV. The wind turbines would be visible as very small elements on the horizon and only in weather conditions which favour visibility. The proposed wind turbines would be visible with existing offshore wind farms in the foreground including Walney and West of Duddon Sands. At approximately 44 km, Morgan Generation Assets would only be visible in the most favourable conditions (i.e. excellent visibility >40 km approximately 28% of the year). The turbines would be difficult to discern (or not visible) at other times of the year.

Construction and decommissioning phases

Magnitude of impact

10.8.13.246 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people at this elevated location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 44 km.

10.8.13.247 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.248 The views/visual amenity of people at this viewpoint is deemed to be of very high value and very high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **very high**.

Significance of the effect

10.8.13.249 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible and the sensitivity of the receptor is very high. The temporary effect will be **minor adverse and not significant**.

Operations and maintenance phase

Magnitude of impact

10.8.13.250 A visual impact will potentially arise at this viewpoint which is representative of people at this elevated location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.251 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **negligible** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.252 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **very high**.

Significance of the effect

10.8.13.253 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an

approximate distance of 44 km offshore, is deemed to be negligible. The sensitivity of the receptor is very high. The effects will be **minor adverse** and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 60 – Whit Fell, Lake District National Park

10.8.13.254 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)
- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.255 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.256 Panoramic views are available of a mountain landscape against the backdrop of The Irish Sea from the summit of Whit Fell (572m AOD). To the right of the viewer, the coastal plain is visible along with the estuary of the River Esk and the Sellafield Nuclear Power Plant in the distance. Existing offshore wind farms are visible including Walney and West of Duddon Sands. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.257 Fieldwork and analysis of the visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 27% (25°) of the 90° HFoV. The turbines would be barely visible on the horizon behind existing offshore wind turbines in the foreground, set within a seascape occasionally animated by commercial shipping/ferries. At approximately 50.9 km, Morgan Generation Assets would only be visible in the most favourable conditions (i.e. excellent visibility >40 km approximately 28% of the year). The turbines would be difficult to discern (or not visible) at other times of the year..

Construction and decommissioning phases

Magnitude of impact

10.8.13.258 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people at this elevated location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at distances of approximately 50.9 km.

10.8.13.259 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.260 The views/visual amenity of people at this viewpoint is deemed to be of very high value and very high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **very high**.

Significance of the effect

10.8.13.261 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible and the sensitivity of the receptor is very high. The temporary effect will be **minor adverse and not significant**.

Operations and maintenance phase

Magnitude of impact

10.8.13.262 A visual impact will potentially arise at this viewpoint which is representative of people at this elevated location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.263 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is considered to be **negligible** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected. At a distance of over 50 km, the scale of the change to the existing view is expected to be very limited and subject to favourable weather conditions. There will be many occasions where Morgan Generation Assets will not be visible due to weather conditions. The overall magnitude of impact is assessed as negligible and this reflects the worst case scenario where a very limited scale of change to the existing view would arise only under weather conditions that favour maximum visibility

Sensitivity of the receptor

10.8.13.264 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **very high**.

Significance of the effect

10.8.13.265 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, situated at an approximate distance of 50.9 km offshore, is deemed to be negligible. The sensitivity of the receptor is very high. The effects will be **minor adverse** and not significant.

Visual effects – Potential effects on people at Representative Viewpoint 61 – Whin Rigg, Lake District National Park

10.8.13.266 Visual impacts will potentially be experienced by people during the construction, operations and maintenance, and decommissioning phases on views from this viewpoint falling within the ZTV of Morgan Generation Assets. These impacts would be caused by visibility of some or all of the following Morgan Generation Assets.

- 68 wind turbines (364 m maximum blade-tip height above LAT)

- Four OSPs, each measuring 55 m x 65 m x 45 m (height above LAT x length x width)
- Construction and service vessels/helicopters.

10.8.13.267 The impacts will be generated by both static and moving elements of the above components which will affect the views/visual amenity of people at this viewpoint.

Summary of visual baseline

10.8.13.268 Panoramic views are available in a south westerly direction of the Irish Sea from this elevated location at Whin Rigg. The views are attained with the mountain moorland landscape in the foreground and the lower lying pastoral farmland at the coast. This view is described further in Volume 4, Annex 10.3: Visual baseline technical report of the Environmental Statement.

Description of visual change

10.8.13.269 Fieldwork and analysis of the visualisation indicates visibility of Morgan Generation Assets in the distance occupying approximately 25% (23°) of the 90° HFoV. The turbines would be barely visible on the distant horizon, located further away from the viewer than the existing offshore wind farms at Walney and West of Duddon Sands, set within a seascape occasionally animated by commercial shipping/ferries. At approximately 58.7 km, Morgan Generation Assets would only be visible in the most favourable conditions (i.e. excellent visibility >40 km approximately 28% of the year). The turbines would be difficult to discern (or not visible) at other times of the year..

Construction and decommissioning phases

Magnitude of impact

10.8.13.270 An impact will potentially arise during construction and decommissioning at this viewpoint which is representative of people at this elevated location. This will be caused by visibility of the erection and dismantling of the wind turbines and OSPs and the associated vessel and equipment activities/movements within the Morgan Array Area situated offshore at the distance specified.

10.8.13.271 The impact is judged to be of short-term duration, continuous (increasing during construction, decreasing during decommissioning) and high reversibility. It is judged that the impact will affect receptors directly. The magnitude of visual impact is therefore considered to be **negligible** during the construction and decommissioning phases. This reflects the limited scale and extent of the construction and decommissioning activities that would be visible at the distances specified.

Sensitivity of the receptor

10.8.13.272 The views/visual amenity of people at this viewpoint is deemed to be of very high value and very high susceptibility to the proposed development. The sensitivity of the receptor is therefore, considered to be **very high**.

Significance of the effect

10.8.13.273 Overall, the magnitude of the visual impact experienced by people at this viewpoint during construction and decommissioning is deemed to be negligible and the sensitivity of the receptor is very high. The temporary effect will be **minor adverse and not significant**.

Operations and maintenance phase

Magnitude of impact

10.8.13.274 A visual impact will potentially arise at this viewpoint which is representative of people at this elevated location due to the operations and maintenance of Morgan Generation Assets. The impact will result from visibility of both moving and static project components occupying the Morgan Array Area (namely: some or all of the rotating wind turbines and service vessels/helicopters, and the stationary OSPs) which has the potential to affect peoples' appreciation of the surrounding seascape/landscape.

10.8.13.275 The impact is judged to be of long-term duration, continuous and high reversibility. It is judged that the impact will affect views/visual amenity directly. The magnitude of impact is therefore considered to be **negligible** during the operations and maintenance phase. This reflects the scale of the change in the view and the proportion of the view that would be affected.

Sensitivity of the receptor

10.8.13.276 The sensitivity of the views/visual amenity at this viewpoint is as set out above for the construction and decommissioning phases, namely **very high**.

Significance of the effect

10.8.13.277 Overall, the magnitude of visual impact caused by Morgan Generation Assets during operations and maintenance, experienced by people at this viewpoint, is deemed to be negligible. The sensitivity of the receptor is very high. The effects will be **minor adverse** and not significant.

10.8.14 Night-time effects on visual receptors

10.8.14.1 Unlike visual receptors during daylight hours, visual receptors at night tend to be in more populated areas. The night-time effects assessment has divided the visual receptors into two broad groups, land-based and marine-based receptors. Night-time visualisations have been undertaken for land-based receptors from coastal towns/locations. No visualisations have been taken from ferry routes, due to the inaccuracy of locating the ferry (as with day-time visualisations from ferry routes). The night-time visualisations have been generated using Resoft WindFarm Release 5, Aviation Lights Manual, which has a default setting for aviation lights of 2000 candela.

Night-time effects on land-based visual receptors

10.8.14.2 The areas of coast where there is the potential for people to see the Morgan Array at night are the Isle of Man and the northwest coast of England. These night time effects have been considered with reference to night time visualisations from the following representative viewpoint locations:

- Representative viewpoint 15 – Blackpool North Pier (Figure 2.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (50.2 km)
- Representative viewpoint 43 - Old Laxey, Isle of Man (Figure 12.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (24.9 km)

- Representative viewpoint 46 – Port St. Mary, Isle of Man (Figure 15.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (35.8 km)
- Representative viewpoint 49 – Douglas Promenade, Isle of Man (Figure 16.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement) (24 km).

10.8.14.3 The Morgan Array would be barely visible at night from Blackpool North Pier, beyond the northwest England cluster of existing offshore wind farms. Figure 2.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement, illustrate this. There is no potential for significant night-time effects to be experienced by visual receptors on the English coast within the 50 km SLVIA study area, and these receptors are not considered further in the assessment.

10.8.14.4 Receptors on the Isle of Man are closer to the Morgan Array than those on the northwest coast of England. Although there are no intervening sources of light, the distance to the Morgan Array means that the lighting will be barely visible (Figures 12.2, 15.2 and 16.2 of Volume 4, Annex 10.6: Seascape visualisations, of the Environmental Statement). As there is no potential for significant effects, the night time effects on these visual receptors are not considered further in the assessment.

Construction and decommissioning phases

10.8.14.5 During the construction and decommissioning phases, should work be required during hours of darkness, lighting will be introduced into areas of the sea, parts of which are not currently lit. However, the East Irish Sea has existing offshore wind farms and oil and gas platforms which are permanently lit and are therefore static sources of light. The East Irish Sea hosts busy shipping lanes of commercial and passenger vessels which are lit and represent dynamic sources of light. Sources of static, but intermittent lights are also present in the form of lighthouses/buoys, close to the coast. In some locations there are no lights from existing static structures. However, this does not mean that there are no lights within the sea, as the lights on commercial shipping and ferries are clearly visible.

10.8.14.6 The magnitude of the direct visual night-time impacts on people on the coast of The Isle of Man, during the construction and decommissioning phases will be **negligible** and this takes account of the short term duration of these effects along with distance to the coast.

10.8.14.7 The sensitivity of people at night, walking along Douglas Promenade or the coastal edges of Old Laxey and Port St Mary is assessed to be **low to medium.**

10.8.14.8 The temporary significance of night-time effects on viewers on the Isle of Man coast during the construction and decommissioning phases will be **negligible adverse**.

Operations and maintenance phase

10.8.14.9 Once the Morgan Array is operational there will be both navigation lighting for shipping on SPSs and aviation warning lights on nacelles, as described in Table 10.17. Night-time visualisations have been generated from four representative viewpoints which are presented in Figures 2.1, 12.1, 15.1 and 16.1 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement. The visualisations have used the worst case (2000 candela) for the aviation lighting and these demonstrate that, the navigation lighting will be barely visible. The duller, red aviation lighting will also be barely visible. The lighting from shipping is much brighter than the proposed lighting and the effects on the seascape will be lower than at construction or decommissioning.

The significance of night-time effects on visual receptors will be **negligible adverse** and not significant.

Night-time effects on marine-based visual receptors

10.8.14.10 The marine-based visual receptors that will see the Morgan Array are those people on commercial vessels, fishermen, passengers on ferries and people on recreational craft, travelling across the East Irish Sea.

10.8.14.11 The existing offshore wind farm clusters off northwest England and north Wales in addition to the lighting on offshore oil and gas platforms, influence night-time views for seafarers. While there are currently no offshore wind farms in the central area of the sea, lighting from other vessels is ever-present. There is the potential for significant night-time effects to be experienced by visual receptors on vessels close to the Morgan Array Area.

10.9 Cumulative effects assessment

10.9.1 Methodology

10.9.1.1 The Cumulative Effects Assessment (CEA) takes into account the impact associated with the Morgan Generation Assets together with the Morgan and Morecambe Offshore Wind Farms: Transmission Assets, the Morecambe Offshore Windfarm: Generation Assets (hereafter referred to as the Morecambe Generation Assets), and other projects and plans. The projects and plans selected as relevant to the CEA presented within this chapter are based upon the results of a screening exercise (see Volume 5, Annex 5.1: CEA screening matrix of the Environmental Statement). Each project has been considered on a case by case basis for screening in or out of this chapter's assessment based upon data confidence, effect-receptor pathways and the spatial/temporal scales involved.

10.9.1.2 The SLVIA CEA methodology has followed the methodology set out in Volume 1, Chapter 5: EIA methodology of the Environmental Statement. The cumulative assessment considers three scenarios:

- Scenario 1: Morgan Generation Assets and Morgan and Morecambe Offshore Wind Farms: Transmission Assets considered as a whole in terms of effects on seascape, landscape and visual amenity
- Scenario 2: Morgan Generation Assets, Morgan and Morecambe Offshore Wind Farms: Transmission Assets, and the Morecambe Generation Assets
- Scenario 3: Morgan Generation Assets and Morgan and Morecambe Offshore Wind Farms: Transmission Assets alongside all other projects, plans and activities. This assessment has been allocated into ‘tiers’ reflecting the current stage of the other projects, plans and activities within the planning and development process. This tiered approach is adopted to provide a clear assessment of the Morgan Generation Assets and Morgan and Morecambe Offshore Wind Farms: Transmission Assets alongside other projects, plans and activities:
  - Tier 1: includes projects, plans and activities at the following stages:
    - Under construction
    - Permitted application
    - Submitted application

- Those currently operational that were not operational when baseline data were collected, and/or those that are operational but have an ongoing impact.

– Tier 2: includes projects, plans and activities at the following stages:

- Scoping report has been submitted and is in the public domain.

– Tier 3 includes projects, plans and activities at the following stages:

- Scoping report has not been submitted and is not in the public domain
- Identified in the relevant Development Plan
- Identified in other plans and programmes.

10.9.1.3 This approach to CEA has been developed to firstly provide an assessment of the Morgan Generation Assets together with the Morgan and Morecambe Offshore Wind Farms: Transmission Assets as a whole in order to identify the combined effects of these elements (Scenario 1). This is followed by Scenario 2 which considers the addition of the Morgan Generation Assets and the Morgan and Morecambe Offshore Wind Farms: Transmission Assets to the baseline alongside the Morecambe Generation Assets. Scenario 3 considers the addition of the Morgan Generation Assets and the Morgan and Morecambe Offshore Wind Farms: Transmission Assets to the baseline alongside Tier 1, Tier 2 and Tier 3 projects.

10.9.1.4 The specific projects, plans and activities scoped into the CEA, are outlined in Table 10.21, and shown on Figures A.5 and A.6 of Appendix A of this chapter.

10.9.1.5 This tiered approach is adopted to provide a clear assessment of the cumulative effects of Morgan Generation Assets (including Morgan Transmission Assets) alongside other projects, plans and activities. This also accords with NatureScot 2021 Guidance which advises that an assessment of cumulative impacts associated with a specific development proposal should consider the proposal in combination with:

- Existing development, either built or under construction
- Approved development, awaiting implementation
- Proposals awaiting determination within the planning process, with design information in the public domain. Proposals and design information may be deemed to be in the public domain once an application has been lodged, and the decision-making authority has formally registered the application.

10.9.1.6 The Planning Inspectorate's Advice Note seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects (2015) defines cumulative projects as those that are proposed or under construction. It does not include existing projects. This cumulative assessment has considered existing projects along with proposed projects and projects under construction in line with guidance referenced below.

10.9.1.7 In line with DTI (2005), GLVIA3, NatureScot (2021) and Planning Inspectorate Advice Note Seventeen; Cumulative effects assessment relevant to nationally significant infrastructure projects (2015), the cumulative assessment has split the SLVIA CEA projects into:

- Tier 1 Existing projects (cumulative baseline) and proposed projects (projects under construction, permitted and submitted for planning approval); and
- Tier 2 projects (projects at scoping stage or identified in relevant plans).

10.9.1.8 The specific projects, plans and activities scoped into the CEA as a result of the aforementioned screening exercise, are outlined in Table 10.21, and shown on Figures A.5 and A.6 of Appendix A of this chapter.

SLVIA Study area

10.9.1.9 The SLVIA study area for the Morgan Generation Assets is a 50 km distance from the boundary of the Morgan Array Area. The SLVIA CEA study area for offshore wind farms is a 100 km distance (50 km + 50 km study areas). This distance allows for other offshore arrays with similar height turbines to be included within the CEA for seascape, landscape and visual resources. The SLVIA CEA study area for onshore wind farms is a 85 km (50 km + 35 km) distance from the boundary of the Morgan Array Area. The study area for onshore wind farms is reduced, as onshore wind farms currently have smaller turbines and so the potential effects will be exerted over a smaller area. For all other development the SLVIA CEA study area has been confined to 50 km.

10.9.1.10 The full list of existing onshore and offshore wind farm projects and major developments within the respective SLVIA CEA study area with the potential to cause cumulative seascape, landscape and visual effects with Morgan Generation Assets are listed in Appendix B of this report. A further assessment was made of these projects as to whether there was the potential for significant effects, primarily based on the scale of the project – which is dependent on height, extent and distance. Based on this assessment, only other offshore wind farm projects are considered to have the potential to contribute to significant cumulative effects. These projects have been taken forward to the cumulative assessment within this chapter.

10.9.1.11 For the Environmental Statement, individual ZTVs were run for each offshore wind farm located within the respective study areas. Where the ZTV of the relevant schemes overlap with the ZTV of the Morgan Generation Assets, there is the potential for cumulative effect on seascape, landscape and visual resources.

Cumulative ZTVs – Tier 1 offshore wind farms

10.9.1.12 Tier 1 existing offshore wind farms considered in this cumulative assessment are listed below, of which, some have been grouped into clusters as indicated, as follows:

- Northwest England cluster, consisting of Barrow, Ormonde, Walney (and extensions) and West of Duddon Sands
- North Wales cluster, consisting of Burbo Bank (and extension), Gwynt y Môr, North Hoyle and Rhyl Flats
- Robin Rigg.

10.9.1.13 Combined ZTVs of each of the two clusters of existing offshore wind farms and Robin Rigg and the Morgan Generation Assets are presented in Figures A.7, A.8 and A.9 of Appendix A of this chapter. The study areas for the individual wind farms have been calculated using the known heights of the turbines of each offshore wind farm in line with the table in paragraph 48 of Visual Representation of Wind Farms: Version 2.2 (SNH, 2017).

10.9.1.14 The cumulative assessment also considered Tier 1 projects under construction, permitted and those submitted for planning approval. In this regard, a cumulative ZTV has been generated for Morgan Generation Assets in combination with the recently consented Awel y Môr Offshore Wind Farm and is presented in Figure A.10 in Appendix A of this chapter. A cumulative ZTV has also been prepared for the Mona Offshore Wind Project (Mona Offshore Wind Ltd, 2024), an application for which has

recently been submitted for development consent, and this is presented in Figure A.12 in Appendix A of this chapter.

Cumulative ZTVs – Tier 2 offshore wind farms

10.9.1.15 Cumulative ZTVs have been generated for the Morgan Generation Assets in combination with Tier 2 proposed development projects. These include the proposed Mooir Vannin Offshore Wind Farm and the proposed Morecambe Generation Assets (Figures A.11 and A.13 in Appendix A of this chapter). Where the ZTV of the other schemes overlap with the ZTV of the Morgan Generation Assets, there is the potential for cumulative seascape, landscape and visual effects.

Cumulative ZTVs – Tier 3 offshore wind farms

10.9.1.16 There are no proposed Tier 3 projects of relevance to this cumulative assessment.

Cumulative wirelines

10.9.1.17 Cumulative wirelines have been prepared and are included in Volume 4, Annex: 10.6: Seascape visualisations of the Environmental Statement, as tabulated in Table 10.20.

Table 10.20: List of cumulative wirelines from representative viewpoints.

Figure	Viewpoint
Figure 24.1:	Viewpoint 15: Blackpool North Pier (90° Cumulative Wirelines - Views South and West)
Figure 24.2:	Viewpoint 15: Blackpool North Pier (90° Cumulative Wirelines - View North)
Figure 25:	Viewpoint 17: Buck Barrow, Lake District NP (90° Cumulative Wirelines - Views South and West)
Figure 26:	Viewpoint 18: Herring Tower Trig Point, Langness Peninsula, Isle of Man (90° Cumulative Wirelines - Views East and South)
Figure 27:	Viewpoint 19: Panoramic Viewpoint at Arch Southwest of Douglas Head, Isle of Man (90° Cumulative Wirelines - Views East and South)
Figure 28:	Viewpoint 20: Snaefell, Summit Station Trig Point, Isle of Man (90° Cumulative Wirelines - Views East and South)
Figure 29:	Viewpoint 42: Maughold Head / Maughold Brooghs, Isle of Man (90° Cumulative Wirelines - Views East and South)
Figure 30:	Viewpoint 43: Car Park/Beach Front at Old Laxey, Isle of Man (90° Cumulative Wirelines - Views East and South)
Figure 31:	Viewpoint 49: Douglas Bay Promenade, Isle of Man (90° Cumulative Wirelines - Views East and South)

Table 10.21: List of other projects, plans and activities considered within the CEA for seascape, landscape and visual resources.

Project name	Status	Distance to Morgan Generation Assets (km)	Description of project/plan	Dates of construction (if applicable)	Dates of operation (if applicable)	Overlap with the Morgan Generation Assets
Morgan and Morecambe Offshore Wind Farms Transmission Assets						
Morgan and Morecambe Offshore Wind Farms Transmission Assets	Pre-application	0.0	Morgan and Morecambe Offshore Wind Farms Transmission Assets	1 January 2028 to 31 December 2029	1 January 2030 to 31 December 2065	Project construction phase overlaps with the Morgan Generation Assets construction phase. Project operations and maintenance phase overlaps with the Morgan Generation Assets operations and maintenance phase.
Tier 1- existing offshore wind farms						
Northwest England cluster						
Barrow	Existing	30.1	Operational wind farm	N/A	Operational	Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
Ormonde	Existing	24.4	Operational wind farm	N/A	Operational	Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
Walney 1	Existing	16.3	Operational wind farm	N/A	Operational	Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
Walney 2	Existing	13.3	Operational wind farm	N/A	Operational	Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
Walney Extension	Existing	8.1	Operational wind farm	N/A	Operational	Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.

Project name	Status	Distance to Morgan Generation Assets (km)	Description of project/plan	Dates of construction (if applicable)	Dates of operation (if applicable)	Overlap with the Morgan Generation Assets
West of Duddon Sands	Existing	15.4	Operational wind farm	N/A	Operational	Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
North Wales cluster						
Burbo Bank	Existing	61.6	Operational wind farm	N/A	Operational	Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
Burbo Bank Extension	Existing	56.0	Operational wind farm	N/A	Operational	Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
Gwynt y Môr	Existing	51.5	Operational wind farm	N/A	Operational	Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
North Hoyle	Existing	61.1	Operational wind farm	N/A	Operational	Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
Rhyl Flats	Existing	60.5	Operational wind farm	N/A	Operational	Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
Robin Rigg						
Robin Rigg	Existing	76.6	Operational wind farm	N/A	Operational	Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
Tier 1- offshore wind farms under construction, permitted and submitted for planning approval						
Awel y Môr Offshore Wind Farm	Consented	46.8	Awel y Môr offshore wind farm, planning to comprise up	Anticipated to commence in 2026	1 January 2030 to 1 January 2055	Project construction phase overlaps with the Morgan Generation Assets proposed construction phase.

Project name	Status	Distance to Morgan Generation Assets (km)	Description of project/plan	Dates of construction (if applicable)	Dates of operation (if applicable)	Overlap with the Morgan Generation Assets
			to 50 wind turbines.			Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
Mona Offshore Wind Project	Application submitted	11.1	Mona Offshore Wind Project	1 January 2028 to 31 December 2029	1 January 2030 to 31 December 2065	Project construction phase overlaps with the Morgan Generation Assets proposed construction phase. Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.
Tier 2 – proposed offshore wind farms and related infrastructure						
Mooir Vannin (formerly Isle of Man) offshore wind farm	Pre application	4.8	The proposed Mooir Vannin offshore wind farm, located off the northeast coast of the Isle of Man.	Construction anticipated to start in 2030	Planning to be operational from 2032	Project construction phase overlaps with the Morgan Generation Assets operations and maintenance phase. Project operations and maintenance phase overlaps with the Morgan Generation Assets operations and maintenance phase.
Morecambe Generation Assets	Pre-application	11.2	Morecambe Generation Assets planning to comprise up to 35 wind turbines and indicative minimum spacing between rows of wind turbines of 1,400 m. Area: 87 km^2.	1 January 2028 to 31 December 2029	1 January 2030 to 31 December 2065	Project construction phase overlaps with the Morgan Generation Assets proposed construction phase. Project operational phase overlaps with the Morgan Generation Assets proposed operations and maintenance phase.

Project name	Status	Distance to Morgan Generation Assets (km)	Description of project/plan	Dates of construction (if applicable)	Dates of operation (if applicable)	Overlap with the Morgan Generation Assets
Tier 3 – proposed offshore wind farms						
None						

Maximum Design Scenario

10.9.1.18 The MDSs identified in Table 10.17 have been selected as those having the potential to result in the greatest effect on an identified receptor or receptor group. The scenarios presented and assessed in this section have been selected from the Project Design Envelope provided in Volume 1, Chapter 5: Project description of the Environmental Statement as well as the information available on other projects and plans, in order to inform a 'MDS'. Effects of greater adverse significance are not judged to arise should any other development scenario, based on details within the Project Design Envelope (e.g. different wind turbine layout) to that assessed here, be taken forward in the final design scheme.

Table 10.22 Maximum design scenario considered for the assessment of potential cumulative effects on seascape landscape and visual resources. [a] C=construction, O=operations and maintenance, D=decommissioning

Potential cumulative effect	Phase[a]			Maximum Design Scenario	Justification
	C	O	D		
The SLVIA considers the likely impacts of the Morgan Generation Assets on the seascape, landscape and visual resources of the 50 km SLVIA study area resulting from its construction, operations and maintenance and decommissioning. The receptor groups considered in the SLVIA are those located within the 50 km radius SLVIA study area as follows: • **Seascape/landscape receptors** – **seascape/marine character areas** – **landscape character areas** – **special qualities of internationally / nationally designated landscapes.** • **Visual receptors** – **people using national trails/long distance paths** – **people using access land/open country (or equivalent)** – **people accessing key coastal settlement seafronts/shorelines** – **cyclists using national cycle routes** – **people travelling along key coastal roads** – **people using key coastal railway routes** – **people travelling on key ferry routes** **17 representative viewpoints** viewpoints corresponding to views experienced by people at of the above receptors. The potential sources of seascape, landscape and visual impacts deriving from the Morgan Array Area development components and associated activities are detailed here.	✓	✓	✓	**Scenario 1** Maximum design scenario as described for the Morgan Generation Assets (Table 10.17) and Morgan and Morecambe Offshore Wind Farms: Transmission Assets considered as a whole in terms of effects on seascape, landscape and visual amenity. **Scenario 2** Maximum design scenario as described for the Morgan Generation Assets (Table 10.17) and Morgan and Morecambe Offshore Wind Farms: Transmission Assets assessed cumulatively with the Morecambe Generation Assets **Scenario 3** Maximum design scenario as described for the Morgan Generation Assets (Table 10.17) and Morgan and Morecambe Offshore Wind Farms: Transmission Assets assessed cumulatively with the following other projects/plans: Tier 1 Existing offshore wind farms • Northwest England cluster • North Wales cluster • Robin Rigg. Tier 1 Existing offshore wind farms, consented offshore wind farms and offshore wind farms submitted for planning approval • Awel y Môr Offshore Wind Farm • Mona Offshore Wind Project. Tier 2 – proposed offshore wind farms • Morecambe Generation Assets • Mooir Vannin Offshore Wind Farm.	Outcome of the CEA will be greatest when the greatest number of other schemes are considered.

Cumulative effects assessment approach

10.9.1.19 For a cumulative effect to occur, an additional effect must arise over and above the likely effect of implementing the Morgan Generation Assets (including Morgan Transmission Assets), measured against baseline conditions. The DTI guidance on assessing cumulative seascape and visual impacts sets this out in of Chapter 9 - Cumulative Impact Assessment of Seascape and Visual Impact Assessment: Guidance for Offshore Wind Farm Developers (DTI, 2005) at section 9.3 *"The assessment should therefore identify the cumulative magnitude of change relative to existing visual impacts of wind farms visible. It is preferable therefore to refer to an 'additional cumulative effect' that is additional to the impact to be expected from the developments taken individually."*

10.9.1.20 The assessment of cumulative seascape, landscape and visual effects is presented in two stages in line with guidance including The Planning Inspectorate advice note 17: Cumulative effects assessment relevant to nationally significant infrastructure projects, as follows:

- Effects arising from the Morgan Generation Assets (including Morgan Transmission Assets) in conjunction with existing offshore wind farm projects and offshore wind farm projects under construction, permitted and those submitted for planning approval (Tier 1). In this regard, ZTVs have been generated using the available data for the existing offshore wind farms, which have been grouped into two offshore clusters, namely: Northwest England and North Wales. In addition, the existing Robin Rigg offshore wind farm was considered. ZTVs have also been generated for the permitted Awel y Môr Offshore Wind Farm and the Mona Offshore Wind Project recently submitted for planning approval (Mona Offshore Wind Ltd, 2024).
- Effects arising from the Morgan Generation Assets (including Morgan Transmission Assets) in conjunction with proposed offshore wind farm projects at scoping stage or in relevant plans (Tier 2). In this regard, ZTVs have been generated using the available data for the proposed Mooir Vannin Offshore Wind Farm and Morecambe Generation Assets.

10.9.1.21 There are no Tier 3 planned offshore and onshore wind farms of relevance to Morgan Generation Assets.

Types of cumulative landscape effects

10.9.1.22 In the light of GLVIA3 guidance on CEA, the cumulative assessment considers the additional impact and effect resulting from the introduction of Morgan Generation Assets (including Morgan Transmission Assets), in particular as follows:

- The 'filling' of an area with either the same or a different type of development, which may substantially alter the seascape, landscape resource, views or visual amenity; and
- Incremental change resulting from successive individual developments such that the combined seascape, landscape or visual effect is significant even though the individual effects may not be (GLVIA3, paragraph 7.17).

10.9.1.23 GLVIA3 identifies the likely potential cumulative seascape/landscape effects as including:

- Effects on the fabric of the seascape/landscape resulting from the removal of, or changes in, individual elements or features of the landscape, and/or the introduction of new elements or features in the landscape;
- Effects on the aesthetic aspects of the seascape/landscape, e.g. scale, sense of enclosure, sense of naturalness, remoteness or tranquillity; and
- Effects on the overall character of the seascape/landscape, resulting from the above, leading to modification of key characteristics and possible creation of new seascape/landscape character.

10.9.1.24 A description of those seascape, landscape and visual effects that have the potential to be significant in terms of cumulative effects upon seascape, landscape and visual resources receptors arising from each identified impact is given below.

10.9.1.25 The aesthetic aspects of seascape and landscape resources are expressed in their overall character, their distinctive characteristics and qualities, and the value attached to them by people/society. Regarding aesthetic aspects, GLVIA3 states:

"Character is not just about the physical elements and features that make up a landscape, but also embraces the aesthetic, perceptual and experiential aspects of the landscape that make different places distinctive." (GLVIA3, paragraph 2.19 – a similar statement is made with respect to seascape at paragraph 5.6). And in defining them GLVIA3 states: *"…the aesthetic aspects of the landscape – for example its scale, sense of enclosure, diversity, pattern and colour, and/or on its perceptual or experiential attributes, such as a sense of naturalness, remoteness or tranquillity."* (GLVIA3, paragraph 7.25)

10.9.1.26 GLVIA 3 adds that regarding the assessment of landscape/seascape value:

"Scenic quality may also be relevant and will need to reflect factors such as sense of place and aesthetic and perceptual qualities." (GLVIA3, paragraph 5.29).

Types of cumulative visual effects

10.9.1.27 GLVIA3 identifies two types of cumulative visual effects as follows:

- Combined – where the observer is able to see two or more developments from one viewpoint. The subsets of combined visual effects are:
  - In combination, where two or more developments are or would be within the observer's arc of vision at the same time, without turning their head; and
  - In succession, where the observer has to turn their head to see the various developments, both existing and proposed.
- Sequential- where the observer has to move to another viewpoint to see the same or different developments. Sequential effects may occur along routes or roads and/or public rights of way. The subsets of sequential effects are:
  - Frequently sequential, where the features appear regularly and with short time lapses between instances (dependant on speed and distance); and
  - Occasionally sequential, where longer time lapses between appearances occur, due to speed of the observer and/or longer distances between viewpoints.

10.9.2 Scenario 1: Effects associated with Morgan Generation Assets (including Morgan and Morecambe Offshore Wind Farms: Transmission Assets) on seascape, landscape and visual amenity

10.9.2.1 The effects of Morgan Generation Assets and the Morgan and Morecambe Offshore Wind Farms: Transmission Assets as a whole on seascape, landscape and visual amenity are the same as that reported in section 10.8.

10.9.2.2 During construction and decommissioning, effects on the baseline seascape, landscape and visual amenity will result from the short term and reversible construction/decommissioning activities associated with the installation/removal of the 68 wind turbines and four OSPs as reported in section 10.8. When considering the additional elements associated with the Morgan and Morecambe Offshore Wind Farms: Transmission Assets, it is considered that the geographic extent of the construction/decommissioning activities associated with the subsea cables and an offshore booster station would extend further eastwards and westwards within MCA 38 Irish Sea South in the SLVIA study area. Taking into account the short term nature of these effects, the magnitude of impact and significance of effect on MCA 38 and the seascape, landscape and visual receptors is considered to be as reported in section 10.8.

10.9.2.3 During operations and maintenance, effects on the baseline seascape, landscape and visual amenity will result from the presence and visibility of the 68 wind turbines and four OSPs as reported in section 10.8 along with an offshore booster station associated with the Morgan and Morecambe Offshore Wind Farms: Transmission Assets. The offshore cables and landfall will have no long term influence on the baseline seascape, landscape and visual amenity due to the nature of these elements, being located on/buried under the sea bed. The assessment concludes that effects on landscape, seascape and visual receptors within the SLVIA study area will be the same as that reported above in section 10.8.

10.9.3 Scenario 2: Morgan Generation Assets (including Morgan and Morecambe Offshore Wind Farms: Transmission Assets) considered cumulatively with Morecambe Generation Assets

10.9.3.1 Scenario 2 considers the addition of the Morgan Generation Assets (including Morgan and Morecambe Offshore Wind Farms: Transmission Assets) to the baseline along with Morecambe Generation Assets

10.9.3.2 Due to the short term and largely reversible nature of the construction and decommissioning activities, cumulative effects on seascape, landscape and visual receptors are not expected to be significant.

10.9.3.3 During operations and maintenance, the addition of the Morgan Generation Assets (including Morgan and Morecambe Offshore Wind Farms: Transmission Assets) to MCA 38 will represent a notable addition to the open seascape of the MCA alongside the Morecambe Generation Assets wind turbines. The cumulative ZTVs of the Morgan Generation Assets with Morecambe Generation Assets, reveal cumulative effects across nearly the entire MCA 38.

10.9.3.4 A **large** magnitude of cumulative change is expected to arise to MCA 38 of **low to medium** sensitivity resulting in a **moderate to major** and potentially significant cumulative effect.

10.9.3.5 Significant cumulative effects on the remaining seascape, landscape and visual receptors within the SLVIA study area are not expected to arise.

10.9.4 Scenario 3: Morgan Generation Assets (including Morgan and Morecambe Offshore Wind Farms: Transmission Assets) considered cumulatively with Tier 1 and Tier 2 projects

10.9.4.1 Scenario 3 considers the effect of the addition of the Morgan Generation Assets (including the Morgan and Morecambe Offshore Wind Farms: Transmission Assets) on seascape, landscape and visual receptors within the 50 km SLVIA study area, along with all other relevant Tier 1 and Tier 2 projects.

10.9.4.2 Cumulative impacts will potentially be caused by both static and moving elements of the development components of the identified projects (Tier 1 and Tier 2 offshore wind farms), in combination with those of Morgan Generation Assets. Together these will potentially affect the characteristics, qualities and perceptions of the seascape, landscape and visual resource within the 50 km SLVIA study area. These effects are outlined in the following sub-sections in relation to:

- the fabric of seascape elements and features
- the aesthetic aspects and overall character of seascape and landscape character areas
- static and dynamic visual receptors.

10.9.4.3 The potential cumulative effects of Morgan Generation Assets on Internationally and Nationally Designated landscapes is presented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.

Potential cumulative effects on the fabric of seascape elements and features

10.9.4.4 Due to the nature of the proposed development, Morgan Generation Assets will occupy a comparatively small area of sea within the overall seascape. Implementation of Morgan Generation Assets will therefore have negligible impact on the physical fabric of the seascape within the 50 km SLVIA study area, whether considered in isolation or as an addition to the Tier 1 existing, consented and submitted offshore wind farms or as an addition to the proposed Tier 2 offshore windfarms. Consequently, there is no potential for significant adverse, cumulative effects to arise on the fabric of seascape elements and features together with Tier 1 existing, consented and submitted offshore wind farms or Tier 2 proposed offshore windfarms.

10.9.4.5 The remainder of this chapter presents the cumulative assessment on both the aesthetic aspects and character of seascape and landscape resources and visual receptors under the following headings:

- Potential cumulative effects of Morgan Generation Assets with Tier 1 existing offshore wind farms
- Potential cumulative effects of Morgan Generation Assets with Tier 1 existing offshore wind farms and the consented Awel y Môr Offshore Wind Farm and the Mona Offshore Wind Project recently submitted for planning approval (Mona Offshore Wind Ltd, 2024).
- Potential cumulative effects of Morgan Generation Assets with Tier 2 proposed offshore wind farms.

Potential cumulative effects on the aesthetic aspects and overall character of seascape and landscape character areas together with Tier 1 existing offshore wind farms

Construction and decommissioning phases

10.9.4.6 As the construction and decommissioning phases of Morgan Generation Assets are not scheduled to overlap with the construction and decommissioning phases of Tier 1 existing offshore wind farms, there will be no cumulative effects on the aesthetic aspects and overall character of seascape and landscape character areas during these phases.

Operation and maintenance phases

10.9.4.7 Cumulative effects will potentially arise on the aesthetic aspects and overall character of the seascape and landscape resources within the 50 km SLVIA study area due to implementation of Morgan Generation Assets.

10.9.4.8 The aesthetic aspects of seascape and landscape resources are expressed in their overall character, their distinctive characteristics and qualities, and the value attached to them by people/society. Regarding aesthetic aspects, GLVIA3 states: '*Character is not just about the physical elements and features that make up a landscape, but also embraces the aesthetic, perceptual and experiential aspects of the landscape that make different places distinctive.'* (GLVIA3, paragraph 2.19 – a similar statement is made with respect to seascape at paragraph 5.6)

10.9.4.9 And in defining them GLVIA3 states: '…the aesthetic aspects of the landscape – for example its scale, sense of enclosure, diversity, pattern and colour, and/or on its perceptual or experiential attributes, such as a sense of naturalness, remoteness or tranquillity.' (GLVIA3, paragraph 7.25).

10.9.4.10 GLVIA3 adds regarding the assessment of landscape/seascape value: 'Scenic quality may also be relevant and will need to reflect factors such as sense of place and aesthetic and perceptual qualities.' (GLVIA3, paragraph 5.29).

Landscape resource

10.9.4.11 The Morgan Generation Assets wind turbines and OSPs are located just over 20 km from the nearest area of land within the 50 km SLVIA study area, that being the east coast of the Isle of Man. There is potential for cumulative effects to arise on landscape character along the coast as a result of Morgan Generation Assets and Tier 1 existing offshore windfarms, in particular the Northwest England Cluster of offshore wind farms. The Northwest England Cluster is located further from the Isle of Man coastline than the Morgan Generation Assets.

10.9.4.12 The cumulative effects with existing wind farms in the Northwest England Cluster will result mainly from the addition of the Morgan Generation Assets wind turbines and OSPs which will increase the extent of wind farm development in the area, as well as introducing larger wind turbines. Based on the distance and the extent to which Morgan Generation Assets adds further wind farm development to the baseline, there is potential for significant cumulative effects on landscape character along the east coast of the Isle of Man, specifically, Isle of Man LCT E Rugged Coast, LCT D Incised Slopes and LCT H Coastal Cliffs. The assessment considered these landscape receptors as being of medium to high sensitivity (section 10.8.3). A medium magnitude of cumulative impact is considered to arise resulting in a **moderate to major adverse** and not significant cumulative effect.

10.9.4.13 Due to the offshore location of Morgan Generation Assets, there is no potential for significant cumulative effects to arise on national landscape character areas (England and Wales) together with existing offshore windfarms and therefore no further assessment is provided here.

Seascape resource

10.9.4.14 Cumulative effects will potentially arise on the character of the seascape in the 50 km SLVIA study area due to implementation of Morgan Generation Assets, in particular the following:

- Marine Character Area (MCA) 38 Irish Sea South
- MCA A Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters
- Seascape Sensitivity Zone (SSZ) 5 North Wales and Anglesey Outer Offshore.

10.9.4.15 The assessment presented in section 10.8.3 concluded that effects on MCA 38 overall will be moderate to major adverse and not significant. It also concluded that effects on MCA A and sensitivity zones SSZ 5 will be minor to moderate adverse (not significant) and minor adverse (not significant) respectively.

10.9.4.16 Regarding the aesthetic aspects of the above seascape units, the MCA 38 Irish Sea South character description states: *'The southern part of the Irish Sea is a busy area, with multiple offshore activities including fishing, main shipping routes, oil and gas extraction and dredging. Offshore wind farms extend into the north-west of the MCA. These activities also influence the night-time character with lighting on the main offshore platforms and wind turbines across the area' … 'The offshore area is distant from low-lying coasts and is not widely visible, except from the ferry routes which link England with Ireland and the Isle of Man, although it is overlooked in distant views from the Lake District fells'* (MMO 2018).

10.9.4.17 With respect to the Isle of Man marine character areas, defined and characterised by RPS in the absence of available published data, The MCA A Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters is described as *"The waters to the east of the Isle of Man are less than 50m deep, with a large area of shallower water to the north of the area, close to Isle of Man MCA B" …. "This is a busy area of the Isle of Man inshore waters, as there are ferry routes from the English mainland (Liverpool and Heysham to Douglas) as well as smaller numbers of shipping from the Island of Ireland and Scotland. Shipping routes from the English mainland to Scotland and the Island of Ireland pass through this MCA. This is also a popular area for recreational sailing, with boats crossing the Irish sea, as well as travelling along the coast of the Isle of Man. An MoD firing practice area is located to the north of Isle of Man MCA A. This is linked to a larger area in English territorial waters (D406C), extending from the MoD's Eskmeals Range, Cumbria. The western edge of Walney Extension is less than 5.5 km from the eastern edge of this MCA."*

10.9.4.18 With respect to the seascape sensitivity zones, NRW states regarding SSZ 5 North Wales and Anglesey Outer Offshore: *'The area lies in open sea at least 44 km offshore from the Anglesey, North Wales and Llŷn Peninsula coasts although the zone's northern edge is located around 22 km from the Isle of Man. To the southeast there are the existing arrays at Gwynt y Môr and further arrays lie to the northeast including Walney, Walney Extension and West of Duddon Sands. The sea is open and exposed with commercial vessels running inshore from this zone to and from the Mersey ports, and ferries issue from Holyhead's busy harbour.'*

10.9.4.19 The siting of the Morgan Array Area at a distance of 8.1 km to the Northwest England Cluster of existing offshore wind farms will result in cumulative effects on seascape. The cumulative effects with existing wind farms in the Northwest England Cluster will result from the presence of the Morgan Generation Assets wind turbines which will increase the extent of wind farm development within the seascape (representative viewpoints 18, 19 and 43; Figures 5.1, 5.2, 6.1, 6.2, 12.1 and 12.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement). Cumulative effects with existing wind farms in the Northwest England Cluster and the North Wales Cluster will also arise (representative viewpoint 20; Figures 7.1 and 7.2 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement). The effect of Morgan Generation Assets will be to increase the extent of wind turbines in the seascape. However, this is not expected to fill the area of seascape to the extent that would lead to a substantial alteration to the baseline conditions. This is because of the separation distance between Morgan Array Area and the North Wales cluster of existing wind farms being in the range of 51 to 61 km. At these separation distances, significant cumulative effects are not expected to arise.

10.9.4.20 The Morgan Generation Assets is considered to bring about a **medium** magnitude of cumulative impact on MCA 38, assessed as being of **low to medium** sensitivity (Section 10.8.2). The wind turbines represent a partial addition to the baseline seascape which would not be substantially uncharacteristic in comparison to the attributes of the receiving seascape. A **minor to moderate adverse** and not significant cumulative effect is, therefore, judged to arise during operation and not significant.

10.9.4.21 Cumulative effects on MCA A Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters are expected to arise with the North West England Cluster of offshore wind farms according to the cumulative ZTVs. There are no cumulative effects with the North Wales Cluster or Robin Rigg within the 50 km SLVIA study area. There will be a cumulative effect on MCA A due to the increased effect of the Morgan Generation Assets wind turbines along with the North West England Cluster. The increase in the extent of wind turbines is not expected to lead to a substantial alteration to the baseline conditions. A **medium** magnitude of cumulative impact is considered to arise to Seascape MCA A resulting in a **minor to moderate adverse** and not significant cumulative effect during operation.

10.9.4.22 Cumulative effects on Seascape Sensitivity Zone (SSZ) 5 North Wales and Anglesey Outer Offshore are expected to arise with the North West England Cluster and the North Wales Cluster of offshore wind farms according to the cumulative ZTVs. There are no cumulative effects with Robin Rigg within the 50 km SLVIA study area. These effects will arise over part of SSZ 5 and will diminish with increasing distance from Morgan Generation Assets. A **negligible to small** magnitude of cumulative impact is considered to arise to SSZ 5 resulting in a **negligible to minor adverse** and not significant cumulative effect during operation.

Potential cumulative visual effects on static and dynamic visual receptors together with Tier 1 existing offshore wind farms

Construction and decommissioning phases

10.9.4.23 As the construction and decommissioning phases of Morgan Generation Assets are not scheduled to overlap with the construction and decommissioning phases of Tier 1 existing offshore wind farms, there will be no cumulative effects on static and dynamic visual receptors during these phases.

Operation and maintenance phases

10.9.4.24 Cumulative visual effects will potentially occur in the 50 km SLVIA study area due to implementation of Morgan Generation Assets together with existing development projects. These effects can potentially arise on both static and dynamic visual receptors, the nature of which is summarised in the cumulative assessment methodology above (section 10.9.1).

10.9.4.25 Desk study and fieldwork indicate that potential significant cumulative visual effects together with existing development projects will be restricted to the following receptor groups in the 50 km SLVIA study area. These receptors may experience significant cumulative visual effects due to their coastal location, from which panoramic sea views are available along with the proximity of the Morgan Generation Assets and existing offshore wind farms, in particular the North West England Cluster and the North Wales Cluster:

- National trails and long-distance paths at Raad ny Foillan Coastal Path and Millennium Way between Castleton and Snaefell, Isle of Man
- People at the seafronts and promenades of the coastal settlements of Douglas and Laxey
- Ferry routes (in particular, Liverpool to Dublin and Liverpool to Douglas).

10.9.4.26 Cumulative wirelines illustrating the Morgan Array and existing offshore wind projects have been prepared for the representative viewpoints along the sections of the Raad ny Foillan Coastal Path in the vicinity of Douglas and Laxey (Figures 12.3 and 16.3 of Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement). These viewpoint locations are representative of both static (receptors who stop en route to admire views) and dynamic visual receptors (receptors on foot experiencing these views).

10.9.4.27 This assessment took account of existing major development, in particular the Northwest England cluster of offshore wind farms. Note that the cumulative ZTV for both the Morgan Array and the Robin Rigg cluster and the Morgan Array and the North Wales cluster reveals no cumulative effects on the Isle of Man within the SLVIA study area (See Figure A.9 of Appendix A of this chapter).

10.9.4.28 There is some limited influence of existing offshore wind farms (Northwest England Cluster) in views towards Morgan Generation Assets from the Raad ny Foillan Coastal Path. The closest sections of this route to the Morgan Array are Douglas Bay (representative viewpoint 49) at a distance of 24 km, Douglas Promenade (representative viewpoint 19) at a distance of 22.5 km and Laxey Bay (representative viewpoint 43) at a distance of 24.9 km. Wind turbines associated with some of these existing offshore wind farms (Northwest England cluster) are visible and occupy a small part of the existing view from representative viewpoint 19 at a distance of over 35 km. Morgan Generation Assets will increase the overall extents of offshore wind farms visible from these particular locations on the Raad ny Foillan Coastal Path resulting in cumulative effects. Lower levels of cumulative visual effects would occur along more distant sections of this route. It is noted however that these cumulative effects will be experienced only during extremely clear weather conditions and with ferries and sea vessels providing intermittent movement in the view. Furthermore, the cumulative effect associated with Morgan Generation Assets will result in the filling of a limited area of sea. This is due to the relatively close proximity of the Morgan Array Area to the Northwest England Cluster and, indeed, the large separation distance between the Morgan Array Area and the North Wales Cluster.

10.9.4.29 A **medium** magnitude of cumulative impact is considered to arise to users of the Raad ny Foillan Coastal Path of **high** sensitivity resulting in a **moderate to major adverse** and not significant cumulative visual effect during operation. This reflects the relative proximity of Morgan Generation Assets to the viewer relative to the existing offshore wind farms.

10.9.4.30 In regard to users of Millennium Way between Castleton and Snaefell, cumulative visual effects are expected to be very limited due to the location of this long-distance walking route, inland where cumulative effects will be mostly screened by intervening topography, vegetation and structures over most of this walking route. A **negligible to small** magnitude of cumulative impact is considered to arise to users of the Millennium Way of **high** sensitivity resulting in a **minor adverse** and not significant cumulative visual effect.

10.9.4.31 Cumulative effects are expected to arise to people at the seafronts and promenades of the coastal settlements of Douglas (Representative viewpoints 49) at a distance of 24 km and Laxey (Representative viewpoints 43) at a distance of 24.9 km. A **medium** magnitude of cumulative impact is considered to arise to users of the seafront promenades and beaches at these settlements which are of **high** sensitivity resulting in a **moderate to major adverse** and not significant cumulative visual effect.

10.9.4.32 The SLVIA considered the cumulative visual effects on people using main ferry routes at the following locations:

- Liverpool to Douglas Ferry (representative viewpoint 22, Figure 9.1) at a distance of 19.1 km
- Heysham to Douglas Ferry (representative Viewpoint 23, Figure 10.1) at a distance of 14.1 km.

10.9.4.33 The cumulative ZTV of Morgan Generation Assets and the Northwest England Cluster of wind farms indicates that cumulative visual effects will occur along the full length of these ferry routes. The scale of the cumulative effect (i.e. the addition of Morgan Generation Assets to the existing wind farms) will vary along the route. A medium magnitude of cumulative visual impact is assessed to arise to people onboard these ferry routes (of medium sensitivity) where these are passing through or immediately adjacent to the Morgan Generation Assets array area resulting in **moderate adverse** cumulative visual effects. This arises as a result of existing offshore wind farms in the Northwest England cluster which are clearly visible at relatively short range on a continuous basis from a section of the Heysham to Douglas Ferry Route, in particular, along with the array area for Morgan Generation Assets.

10.9.4.34 This cumulative magnitude of visual impact will diminish with increasing distance from Morgan Generation Assets. Overall a **small to medium** magnitude of cumulative impact will arise to users of these ferry routes of medium sensitivity resulting in an overall **minor to moderate adverse** and not significant cumulative visual effect.

10.9.4.35 In summary, no visual receptors in the 50 km SLVIA study area are likely to experience significant cumulative visual effects due to the Morgan Generation Assets together with existing development projects.

Potential cumulative effects on the aesthetic aspects and overall character of seascape and landscape character areas together with Tier 1 consented Awel y Môr, submitted Mona Offshore Wind Project and existing offshore wind farms.

10.9.4.36 Cumulative effects will potentially arise on landscape and seascape/marine character areas in the vicinity of Morgan Generation Assets during the operations and maintenance phases. The cumulative effects will be due to the combined influence on the seascape and landscape of Tier 1 existing offshore wind farms, the consented Awel y Môr Offshore Wind Farm (as identified in Table 10.21 above), The Mona Offshore Wind Project (recently submitted for planning approval).

Construction and decommissioning phases

10.9.4.37 As the construction and decommissioning phases of Morgan Generation Assets may potentially overlap with Tier 1 proposed offshore wind farms, there may be additional cumulative effects on the aesthetic aspects and overall character of seascape and landscape character areas during these phases. Due to the short term and largely reversible nature of these activities, effects are not expected to be significant.

Operation and maintenance phases

10.9.4.38 The assessment has considered the cumulative magnitude of impact resulting from the addition of Morgan Generation Assets along with Tier 1 existing offshore wind farms and Awel y Môr Offshore Wind Farm and Mona Offshore Wind Project with reference to cumulative ZTVs of these projects. The cumulative ZTV for Morgan Generation Assets and Awel y Môr Offshore Wind Farm indicates theoretical effects only on MCA 38 and SSZ 5. The cumulative ZTV indicates no cumulative effects on Isle of Man Landscape Character Types (LCT D, LCT E and LCT H) or MCA A Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters within the 50 km SLVIA study area. This is because these receptors lie outside the overlapping area of the two SLVIA Study Areas for Morgan Generation Assets and Awel y Môr. It should be noted that Awel y Môr Offshore Wind Farm is effectively a westward extension of the existing Gwynt y Môr OWF within the North Wales Cluster of existing offshore wind farms (Figures A.8 and A.10 of Appendix A of this chapter).

10.9.4.39 The cumulative ZTV for Morgan Generation Assets and Mona indicates theoretical effects on MCA 38, SSZ 5, MCA A and Isle of Man Landscape Character Types (LCT D, LCT E and LCT H).

Magnitude of impact -

10.9.4.40 The Morgan Generation Assets will be located within the north western part of MCA 38. Awel y Môr Offshore Wind Farm and Mona Offshore Wind Project will be located outside the southern boundary of MCA 38 at distances of over 40 km and 11 km respectively from the Morgan Array Area. The ZTV for Morgan Generation Assets and Awel y Môr Offshore Wind Farm indicates that cumulative effects will be confined to within the southern part of MCA 38. The ZTV for Morgan Generation Assets and Mona indicates cumulative effects over the whole of the MCA 38. The magnitude of cumulative impact resulting from Morgan Generation Assets along with Tier 1 Offshore Wind Farms (existing projects, the consented Awel y Môr Offshore Wind Farm and submitted Mona Offshore Wind Project) is considered to be **small to medium**.

10.9.4.41 Both the Morgan Generation Assets and Awel y Môr Offshore Wind Farm will be located outside the boundary of Welsh SSZ 5 however part of the Mona Array will be located within SSZ 5. The cumulative ZTV of the Morgan Generation Assets and Awel

y Môr Offshore Wind Farm indicate theoretical cumulative effects on a small part of the eastern end of SSZ 5. The cumulative ZTV of the Morgan Generation Assets and Mona Offshore Wind Project indicates effects on the eastern part of SSZ 5. The magnitude of cumulative impact resulting from Morgan Generation Assets along with Tier 1 Offshore Wind Farms (existing projects, the consented Awel y Môr Offshore Wind Farm and submitted Mona Offshore Wind Project) is considered to be **negligible**.

10.9.4.42 Cumulative effects on MCA A and the Isle of Man Landscape Character Types (LCT D, LCT E and LCT H) will result from the addition of Morgan Generation Assets along with existing offshore wind farms and the submitted Mona Offshore Wind Project within the study area. The Morgan Generation Assets will occupy an area of sea in between the existing offshore wind farms and the submitted Mona Offshore Wind Project. Morgan Generation Assets will be located closer to MCA A and the Isle of Man Landscape Character Types than the existing North West England Cluster. The Mona Offshore Wind Project will be located further away from these seascape and landscape receptors.

10.9.4.43 A **medium** magnitude of cumulative impact is assessed to arise to MCA A and Isle of Man Landscape Character Types (LCT D, LCT E and LCT H).

Sensitivity of the receptor

10.9.4.44 The sensitivity of MCA 38, MCA A and SSZ 5 is considered to be **low to medium**. The sensitivity of the Isle of Man Landscape Character Types (LCT D, LCT E and LCT H) is considered to be **medium to high**.

Significance of effect

10.9.4.45 The cumulative effect during operation and maintenance on MCA 38 will be **minor adverse** and not significant.

10.9.4.46 The cumulative effect during operation and maintenance on SSZ 5 will be **negligible to minor adverse** and not significant.

10.9.4.47 The cumulative effect during operation and maintenance on MCA A will be **minor to moderate** adverse and not significant.

10.9.4.48 The cumulative effect during operation and maintenance on Isle of Man Landscape Character Types (LCT D, LCT E and LCT H) will be **moderate to major** adverse and potentially significant.

Further mitigation and residual effect

10.9.4.49 No further mitigation is proposed.

Potential cumulative visual effects on static and dynamic visual receptors together with Tier 1 consented Awel y Môr, submitted Mona Offshore Wind Project and existing offshore wind farms.

Construction and decommissioning phases

10.9.4.50 As the construction and decommissioning phases of Morgan Generation Assets may potentially overlap with Tier 1 proposed offshore wind farms, there may be additional cumulative effects on static and dynamic visual receptors during these phases. Due to the short term and largely reversible nature of these activities, effects are not expected to be significant.

Operation and maintenance phases

10.9.4.51 The cumulative ZTV for Morgan Generation Assets and Awel y Môr Offshore Wind Farm indicates no cumulative effects on the visual amenity of individuals on land on the Isle Of Man within the 50 km SLVIA study area. Cumulative effects will therefore result from the addition of Morgan Generation Assets alongside existing offshore wind farms and the submitted Mona Offshore Wind Project.

Magnitude of impact

10.9.4.52 Morgan Generation Assets will be visible, located closer to the viewer than the existing North West England Cluster of offshore wind farms and Mona Offshore Wind Project. These cumulative effects will arise along parts of the Raad ny Foillan walking route. Cumulative effects on users of Millennium Way will be more limited due to the inland location and screening by intervening topography and vegetation.

10.9.4.53 A **medium** magnitude of cumulative impact will arise to users of Raad ny Foillan and a **small** magnitude of impact will arise to users of Millennium Way. In the case of each walking route, the cumulative magnitude of visual impact is mostly derived from existing offshore wind farms and the presence of Mona offshore Wind Project to a lesser extent due to its distance to the viewer at approximately 47 km.

10.9.4.54 Individuals located at the settlements of Douglas and Laxey will experience cumulative visual effects due to the addition of Morgan alongside the North East England Cluster of Existing offshore wind farms. The submitted Mona Offshore Wind Project may be barely visible in the distance. A **medium** magnitude of cumulative impact is assessed to arise.

10.9.4.55 In the case of individuals travelling on the Liverpool to Douglas and the Heysham to Douglas Ferry, the cumulative magnitude of impact resulting from Morgan Generation Assets in addition to Tier 1 existing, consented and submitted offshore wind farms will be **small to medium**. This reflects the viewer experience across the entire ferry route located at variable distances to Morgan Generation Assets.

Sensitivity of the receptor

10.9.4.56 The sensitivity of individuals on the Isle of Man Waling routes and at the settlements of Douglas and Laxey is **high**.

10.9.4.57 The sensitivity of individuals travelling on the Liverpool to Douglas and the Heysham to Douglas Ferry is **medium**.

Significance of effect

10.9.4.58 The cumulative visual effect on individuals on the Raad ny Foillan walking route is **moderate to major** adverse and potentially significant.

10.9.4.59 Individuals at the settlements of Douglas and Laxey will experience **moderate to major** adverse cumulative visual effects however these will not be significant. This is due to the fact that Mona Offshore Wind Project, if built, would be barely visible from Douglas and scarcely visible at all from Laxey and hence, the cumulative visual effect will be similar to that reported above for Morgan Generation Assets and existing offshore wind farms.

10.9.4.60 The cumulative visual effect on individuals on Millennium Way is **minor to moderate** adverse and not significant.

10.9.4.61 The cumulative visual effect on individuals travelling on the Liverpool to Douglas and the Heysham to Douglas Ferry is **minor to moderate adverse** and not significant.

Further mitigation and residual effect

10.9.4.62 No further mitigation is proposed.

Potential cumulative effects on the aesthetic aspects and overall character of seascape and landscape character areas together with Tier 2 proposed offshore wind farms

10.9.4.63 Cumulative seascape and landscape effects will potentially occur in the SLVIA study area due to implementation of the Morgan Generation Assets and the Morgan and Morecambe Offshore Wind Farms: Transmission Assets together with Mooir Vannin Offshore Wind Farm and Morecambe Generation Assets.

Construction and decommissioning phases

10.9.4.64 As the construction and decommissioning phases of Morgan Generation Assets may overlap with some of the Tier 2 projects, there may be additional cumulative effects on the aesthetic aspects and overall character of seascape and landscape character areas during these phases.

Magnitude of impact

10.9.4.65 There is potential for cumulative effects during the construction and decommissioning phases as a result of Morgan Generation Assets along with Mooir Vannin offshore Wind Farm and Morecambe Generation Assets. Both Morgan Generation Assets and Morecambe Generation Assets would be located within MCA 38 and hence direct cumulative effects during construction and decommissioning will arise. There would be no direct cumulative effects on SSZ 5 and MCA A. Temporary and reversible cumulative effects may also arise to SSZ 5 and MCA A.

10.9.4.66 The magnitude of cumulative impact on MCA 38 is considered to be **small**. Although direct cumulative effects may arise along with effects on the character of this seascape, much of these effects are expected to be short term and reversible.

10.9.4.67 The magnitude of cumulative impact on MCA A and SSZ 5 are considered to be **negligible**. This takes account of the short term and reversible nature of the effects.

10.9.4.68 Cumulative effects during the construction and decommissioning phases will arise to the landscape along the coast of the Isle of Man as a result of Morgan Generation Assets and Tier 2 projects, in particular Mooir Vannin Offshore Wind Farm. A **negligible to small** magnitude of cumulative impact may arise, in particular to LCT E Rugged Coast. This takes account of the temporary and reversible nature of these effects and also the fact that Morgan will be located further away from the coast than Mooir Vannin.

Sensitivity of the receptor

10.9.4.69 The sensitivity of the Isle of Man landscape character types (LCT E Rugged Coast and LCT D Incised Slopes) to Morgan Generation Assets is considered to be **medium to high.**

10.9.4.70 The sensitivity of MCA 38, MCA A and SSZ 5 is considered to be **low to medium**.

Significance of effect

10.9.4.71 A **negligible to minor** and not significant cumulative effect is predicted to arise on MCA 38. The cumulative effect on MCA A and SSZ 5 is **negligible**.

10.9.4.72 A **minor** and not significant cumulative effect is predicted to arise on the landscape of the east coast of The Isle of Man in particular LCT E Rugged Coast.

Operation and maintenance phases.

Magnitude of impact

10.9.4.73 The Morgan Generation Assets will be located over 20 km from the Isle of Man landscape character types (LCT E Rugged Coast, LCT D Incised Slopes and LCT H Coastal Cliffs). The cumulative ZTVs of Morgan Generation Assets and Mooir Vannin Offshore Wind Farm indicate cumulative effects on these landscapes within the study area. The cumulative ZTV of Morgan Generation Assets and Morecambe Generation Assets indicates no cumulative effects on the landscape of the Isle of Man within the study area.

10.9.4.74 The cumulative effects on LCT D, LCT E and LCT H will be experienced at distances of over 20 km to the Morgan Array and will be largely restricted to the coastline due to screening inland by intervening vegetation, settlements along the coast and built structures.

10.9.4.75 The Mooir Vannin Offshore Wind Farm, if built, would be located approximately 10 km from the north east coast of The Isle of Man. Morgan Generation Assets would occupy an area of sea located further away than Mooir Vannin. Of the Tier 2 projects, Mooir Vannin Offshore Wind Farm will have the greatest potential to affect the aesthetic aspects and overall character of the Isle of Man LCT D, LCT E and LCT H due to its proximity at approximately 10 km. As a result, the addition of Morgan Generation Assets will introduce additional wind turbines which will be further from the Isle of Man landscape character types than Mooir Vannin.

10.9.4.76 A **small** magnitude of cumulative impact is considered to arise to Isle of Man Landscape Character Types LCT D, LCT E and LCT H as a result of Morgan Generation Assets in addition to Mooir Vannin Offshore Windfarm during operation and maintenance. This reflects the scale of the change resulting from the addition of Morgan Generation Assets to the seascape along with Mooir Vannin Offshore Wind Farms.

10.9.4.77 The Morgan Generation Assets and most of Morecambe Generation Assets would be located in MCA 38 Irish Sea South resulting in direct cumulative effects on this marine character area. Indirect cumulative impacts will arise to MCA 38 due to the presence of Tier 2 offshore wind farms along with the Morgan Generation Assets in this MCA.

10.9.4.78 The cumulative ZTVs of the Morgan Generation Assets with Morecambe Generation Assets, reveal cumulative effects across nearly the entire MCA 38.

10.9.4.79 The cumulative ZTVs of the Morgan Generation Assets with Mooir Vannin Offshore Wind Farm, indicate cumulative effects across the majority of MCA 38, with a smaller area in the south being unaffected.

10.9.4.80 Given the proximity of Morgan Generation Assets to the two Tier 2 offshore wind farms and its location in between these projects, cumulative effects will arise from the addition of the Morgan Wind Turbines which will increase the extent of wind turbines across this MCA and the surrounding seascape. Cumulative effects will be greatest in

the northern part of MCA 38 and will diminish further south with increasing distance from Morgan Generation Assets.

10.9.4.81 Overall, a **medium to large** magnitude of cumulative impact is considered to arise to MCA 38 as a result of Morgan Generation Assets in addition to Mooir Vannin and Morecambe Offshore Windfarms during operation and maintenance. This reflects the scale of the change resulting from the addition of Morgan Generation Assets to the seascape.

10.9.4.82 The cumulative ZTVs of the Morgan Generation Assets with each of the Tier 2 offshore wind farms (Morecambe and Mooir Vannin) indicate cumulative effects across the eastern part of SSZ 5. Effects will be greatest in the immediate vicinity of Morgan Generation Assets in proximity to Morecambe Offshore Windfarm. These cumulative effects will diminish with increasing distance from Morgan Generation Assets. There will be no cumulative effects in the western part of SSZ 5 within the 50 km SLVIA study area. Considering SSZ 5, as a whole, a **small** magnitude of cumulative impact would arise.

10.9.4.83 The cumulative ZTVs of the Morgan Generation Assets with Mooir Vannin Offshore Wind Farm indicates that cumulative effects would occur over the entire MCA A. The cumulative ZTV of the Morgan Generation Assets with Morecambe Generation Assets indicates effects on the south eastern part of the MCA A.

10.9.4.84 The Mooir Vannin Offshore Wind Farm would be almost entirely located within the north eastern part of the MCA A. Cumulative effects will be greatest in the eastern part of MCA A and Morgan Generation Assets would be located adjacent and outside the eastern boundary of MCA A. The cumulative effects on MCA A would be greatest in close proximity to Morgan Generation Assets in the northern part of this seascape thereafter diminishing further south with distance. The overall magnitude of cumulative impact is considered to be **medium**. This reflects the scale of the addition of Morgan Generation Assets to the wider seascape alongside Mooir Vannin, located within MCA A.

Sensitivity of the receptor

10.9.4.85 The sensitivity of the Isle of Man landscape character types (LCT E Rugged Coast and LCT D Incised Slopes) to Morgan Generation Assets is considered to be **medium to high.**

10.9.4.86 The sensitivity of MCA 38, MCA A and SSZ 5 is considered to be **low to medium**.

Significance of effect

10.9.4.87 The cumulative effect during operation and maintenance on the Isle of Man landscape character types (LCT E Rugged Coast, LCT D Incised Slopes and LCT H Coastal Cliffs) will be **minor to moderate** and not significant. This is due largely to the fact that the Mooir Vannin Offshore Wind Farm would be located closer to these landscapes than Morgan Generation Assets. The Morgan Generation Assets would add further wind turbines to the seascape east of The Isle of Man alongside those of Morecambe and Mooir Vannin however the scale of the Morgan Wind Turbines would present as being smaller than those of Mooir Vannin due to being located further away from The Isle of Man than Mooir Vannin.

10.9.4.88 The cumulative effect during operation and maintenance will be **moderate to major** and not significant for MCA 38 and **moderate** for MCA A.

10.9.4.89 The cumulative effect during operation and maintenance will be **minor adverse** and not significant for SSZ 5.

Further mitigation and residual effect

10.9.4.90 No further mitigation is proposed.

Potential cumulative visual effects on static and dynamic visual receptors together with Tier 2 proposed offshore wind farms.

10.9.4.91 Cumulative visual effects will potentially occur in the SLVIA study area due to implementation of the Morgan Generation Assets together with Mooir Vannin Offshore Wind Farm and Morecambe Generation Assets.

10.9.4.92 The cumulative effects can potentially arise on both static and dynamic visual receptors. CEA wirelines have been undertaken for a selection of viewpoints and are presented in Volume 4, Annex 10.6: Seascape visualisations of the Environmental Statement. The CEA representative viewpoint location plan is Figure A.4 of Appendix A to this chapter.

10.9.4.93 Desk study and fieldwork indicate that potential significant cumulative visual effects together with proposed development projects will be restricted to the following receptor groups in the 50 km SLVIA study area:

- National trails or equivalent non-vehicular recreational routes (e.g, Raad ny Foillan Coastal Path and Millennium Way, Isle of Man)
- People at the seafronts and promenades of the coastal settlements of Douglas and Laxey
- Ferry routes (in particular, Liverpool to Douglas and Heysham to Douglas)

Construction and decommissioning phases

10.9.4.94 As the construction and decommissioning phases of Morgan Generation Assets may potentially overlap with Tier 2 proposed offshore wind farms, there may be additional cumulative effects on static and dynamic visual receptors during these phases.

Magnitude of Impact

10.9.4.95 The magnitude of impact on static and dynamic visual receptors takes account of the short term and reversible nature of the cumulative effects during construction and decommissioning which will arise as a result of the additional construction effects associated with Morgan Generation Assets and that associated with the proposed Morecambe and Mooir Vannin wind farms.

10.9.4.96 In regard to users of the Raad ny Foillan Coast Path, the construction activities of Morgan Generation Assets would be visible on a temporary and intermittent basis located further away from that associated with Mooir Vannin which would be visible in the foreground. A **negligible to small** magnitude of cumulative visual impact is considered to arise.

10.9.4.97 The magnitude of cumulative visual impact on users of the Millennium Way is considered to be **negligible**.

10.9.4.98 Individuals at the coastal settlements of Douglas and Laxey would attain views of the construction and decommissioning of Morgan Generation Assets alongside that associated with part of the Mooir Vannin offshore Wind Farm, in particular, which would

be located closer to the viewer than Morgan. A **negligible to small** magnitude of cumulative visual impact is considered to arise.

10.9.4.99 The magnitude of cumulative visual impact on individuals travelling on the Liverpool to Douglas and the Heysham to Douglas Ferries is considered to be **small**. This takes account the short term nature of the cumulative effects and the fact that these diminish with increasing distance from Morgan Generation Assets.

Sensitivity of the receptor

10.9.4.100 The sensitivity of users of the Raad ny Foillan Coast Path and Millennium Way is considered to be **high.**

10.9.4.101 The sensitivity of individuals at the coastal settlements of Douglas and Laxey is considered to be **high.**

10.9.4.102 The sensitivity of individuals on board the ferries is considered to be **medium**.

Significance of the effect

10.9.4.103 The cumulative visual effect during construction and decommissioning on users of the Raad ny Foillan Coast Path and individuals at the coastal settlements of Douglas and Laxey will be **minor** and not significant.

10.9.4.104 The cumulative visual effect during construction and decommissioning on users of Millennium Way will be **negligible** adverse and not significant.

10.9.4.105 The cumulative visual effect during operation and maintenance on users of ferry routes is assessed to be **minor** and not significant.

Operation and maintenance phases.

10.9.4.106 Cumulative visual effects will potentially occur in the 50 km SLVIA study area due to implementation of the Morgan Generation Assets together with the proposed Morecambe and Mooir Vannin Offshore Wind Farms. These effects can potentially arise on both static and dynamic visual receptors, the nature of which is summarised in the cumulative assessment methodology above (section 10.9.1) and detailed in Volume 4, Annex 10.4: Seascape, landscape and visual impact assessment methodology of the Environmental Statement.

10.9.4.107 The cumulative ZTV of Morgan Generation Assets and Morecambe Generation Assets indicates no cumulative visual effects on individuals located on the Isle of Man within the study area. Cumulative visual effects on viewers located on the Isle of Man will therefore result from the addition of Morgan Generation Assets alongside the proposed Mooir Vannin offshore wind farm.

10.9.4.108 The Morgan Generation Assets would be located further away from individuals on the Raad ny Foillan Coastal Path than the Mooir Vannin Offshore Wind Farm which would be clearly visible in the foreground at a distance of approximately 11km from this walking route. The Mooir Vannin Offshore Wind farm would be the most prominent of the wind farms, being located closer to the viewer than the Morgan Wind Turbines (approximately 24.9 km). The overall magnitude of cumulative visual impact is considered to be **medium**. This reflects the scale of the addition of Morgan Generation Assets in views from Raad ny Foillan alongside Mooir Vannin Offshore Wind Farm.

10.9.4.109 In regard to users of Millennium Way between Castleton and Snaefell, cumulative visual effects are expected to be limited due to the location of this long-distance walking route, inland where cumulative effects will be mostly screened by intervening topography, vegetation and structures over most of this walking route. A **negligible to**

small magnitude of cumulative impact is considered to arise to users of the Millennium Way.

10.9.4.110 Individuals located at the coastal settlements of Douglas and Laxey will experience cumulative visual effects due to the addition of Morgan Generation Assets along with Mooir Vannin offshore wind farm. A **medium** magnitude of cumulative visual impact is expected to arise for viewers located at Douglas and this takes account of the proximity of the Mooir Vannin Offshore Wind Farm, located closer to the viewer than the Morgan Array.

10.9.4.111 Individuals at Laxey will experience a **medium** magnitude of cumulative visual change due to the addition of Morgan Generation Assets alongside Mooir Vannin. This takes account of the fact that the Morgan wind turbines would be located further away than the Mooir Vannin wind turbines.

10.9.4.112 Cumulative visual effects on individuals travelling by ferry between Liverpool and Douglas as well as those on the Heysham to Douglas Route will arise due to the addition of Morgan generation Assets alongside Morecambe and Mooir Vannin Offshore Wind Farms. Only a part of the Liverpool to Dublin Route would be affected within the SLVIA Study Area. The magnitude of cumulative change will vary along the journey and this is likely to be greatest for the part of the ferry route in close proximity to Morgan Generation Assets. Taking into account the ferry routes as a whole, a **medium** magnitude of cumulative visual impact is considered to arise.

Sensitivity of the receptor

10.9.4.113 The sensitivity of users of the Raad ny Foillan Coast Path and Millennium Way is considered to be **high.**

10.9.4.114 The sensitivity of individuals at the coastal settlements of Douglas and Laxey is considered to be **high.**

10.9.4.115 The sensitivity of individuals on board the ferries is considered to be **medium**.

Significance of effect

10.9.4.116 The cumulative visual effect during operation and maintenance on users of the Raad ny Foillan Coast Path and individuals at the coastal settlement of Douglas will be **moderate to major** and not significant.

10.9.4.117 The cumulative visual effect on individuals at the coastal settlement of Laxey will be **moderate to major** and not significant.

10.9.4.118 The cumulative visual effect during operation and maintenance on users of Millennium Way will be **minor** adverse and not significant.

10.9.4.119 The cumulative visual effect during operation and maintenance on users of ferry routes is assessed to be **moderate** and not significant.

10.10 Future monitoring

10.10.1.1 No seascape, landscape and visual resources monitoring is proposed.

10.11 Transboundary effects

10.11.1.1 A screening of transboundary impacts has been carried out within Volume 3, Annex 5.2: Transboundary impacts screening of the Environmental Statement and has identified that there is no potential for significant transboundary effects with regard to

seascape, landscape and visual resources from the Morgan Generation Assets upon the seascapes of the Republic of Ireland territorial waters.

10.12 Inter-related effects

10.12.1.1 Inter-relationships are considered to be the impacts 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 Morgan Generation Assets (construction, operations and maintenance, and decommissioning), to interact to potentially create a more significant effect on a receptor than if just assessed in isolation in these three phases (e.g. subsea noise effects from piling, operational wind turbines, vessels and decommissioning)
- 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 seascape, landscape and visual resources, such as the presence of jack-up vessels, wind turbines and navigational lighting may interact to produce a different, or greater effect on this receptor than when the effects are considered in isolation. Receptor-led effects may be short term, temporary or transient effects, or incorporate longer term effects.

10.12.1.2 A description of the likely interactive effects arising from the Morgan Generation Assets on seascape, landscape and visual resources is provided in Volume 2, Chapter 15: Inter-related effects of the Environmental Statement.

10.13 Summary of potential seascape, landscape and visual effects of the Morgan Generation Assets

10.13.1.1 Baseline information on seascape, landscape and visual resources within the 50 km SLVIA study area was collected through of a combination of desktop studies, fieldwork, site surveys and consultation. These desk and field studies supported the impact assessment work and judgements on significance of effects.

10.13.1.2 The seascape and landscape character and visual receptors presented within Table 10.9 and Table 10.10 are fully assessed within section 10.8 and summarised in Table 10.23.

10.13.1.3 The assessment considers the likely impacts of the Morgan Generation Assets on the seascape, landscape and visual resources of the 50 km SLVIA study area resulting from its construction, operations and maintenance and decommissioning. The receptor groups considered in the SLVIA are those located within the 50 km SLVIA study area. Additionally visual receptors are considered in the 50 km to 60 km distance range of the Morgan Generation Assets to support the assessment of effects on nationally and internationally designated landscapes in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.

10.13.1.4 Table 10.23 below, presents a summary of the potential impacts, measures adopted as part of the project and residual effects in respect of seascape, landscape and visual resources. A summary of the SLVIA findings, is set out below:

- The Morgan Array Area is located in English territorial waters in the northwest part of MCA 38 Irish Sea South. There may be the potential for very localised moderate to major adverse effects on the part of MCA 38 occupied by Morgan Generation Assets. Notwithstanding this, the extensive offshore MCA 38 would

not be affected significantly affected overall by the introduction of Morgan Generation Assets

- This assessment concludes minor to moderate and not significant effects on the seascape character of MCA A and minor not significant effects on SSZ 5
- The assessment takes account of a seascape baseline which is partly characterised by commercial shipping and ferries, and by several operational offshore wind farms including the Gwynt y Môr/Rhyl Flats/North Hoyle/Burbo Bank (North Wales cluster) to the south, and the West of Duddon Sands/Walney/Walney Extension/Barrow/Ormonde (Northwest England cluster) to the east-northeast, of the Morgan Array Area
- No significant effects are considered to arise during construction, operations and maintenance and decommissioning of Morgan Generation Assets on landscape character areas in the 50 km SLVIA study area. At over 20 km, Douglas Head, Onchan Head and Clay Head are the closest part of the Isle of Man coast. The separation distance between these areas of coastal landscape and Morgan Generation Assets is such that significant adverse effects on landscape character on the Isle of Man are not expected to arise. The distance to Morgan Generation Assets, together with the influence of existing offshore wind farms (the Northwest England cluster), is such that the landscape along the coast of England (Cumbria at 36 km from the Morgan Array and Blackpool at approximately 50 km) would not be significantly affected. The character of the elevated inland landscapes of the Isle of Man (at approximate distances of 30 km to the Morgan Array) would also not be significantly affected.
- No significant effects are judged during construction, operations and maintenance and decommissioning of Morgan Generation Assets on nationally designated landscapes. Further detail on this is presented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.
- Moderate and not significant adverse visual effects (long term and reversible) are judged during operations and maintenance of Morgan Generation Assets for people using Douglas promenade and other similar publicly accessible, seafront/shoreline locations on the Isle of Man's east coast where views of Morgan Generation Assets are available at distances ranging from 22.5 to 25 km. These locations include Douglas Promenade, Old Laxey and Douglas Head. Visual effects arising during construction and decommissioning would be lower, temporary, short term in duration and not significant
- Moderate and not significant visual effects would be experienced during operations and maintenance by users of the Raad ny Foillan Coastal Path on the Isle of Man's east coast and individuals at coastal settlements of Douglas and Laxey.
- Users of ferries are expected to experience moderate to major adverse effects during the operations and maintenance phase where the ferries pass within or adjacent to the Morgan Array Area. At other points along the route farther away from the Morgan Array Area the magnitude of visual impact and the significance of the effect will be lower and not significant. Similarly recreational sailors may experience significant visual effects in close proximity to the Morgan Generation Assets wind turbines.

Table 10.23 Summary of potential seascape, landscape and visual effects resulting from the Morgan Generation Assets.

[a] C=construction, O=operation and maintenance, D=decommissioning

Receptor	Phase[a]			Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Further mitigation	Residual effect	Proposed Monitoring
	C	O	D							
Morgan Generation Assets – Effects on Seascape/Marine Character Areas										
Direct effects on Marine Character Area (MCA) 38 Irish Sea South (the area occupied by the Morgan generation Assets)	✓	✓	✓	Turbines painted grey	C: large O: large D: large	Low to Medium	C: moderate to major adverse (significant) O: moderate to major adverse (significant) D: moderate to major adverse (significant)	None	C: moderate to major adverse (significant) O: moderate to major adverse (significant) D: moderate to major adverse (significant)	None
Indirect effects on Marine Character Area (MCA) 38 Irish Sea South	✓	✓	✓	Turbines painted grey	C: Small to Medium O: Mediun to Large D: Small to Medium	Low to Medium	C: Minor to Moderate O: Moderate to Major (not significant) D: Minor to Moderate	None	C: Minor to Moderate O: Moderate to Major (not significant) D: Minor to Moderate	None
SSZ 5 North Wales and Anglesey Outer Offshore	✓	✓	✓	Turbines painted grey	C: Small O: Small to Medium D: Small	Low to Medium	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
MCA A Dreswick Point to Maughold Head, Isle of Man	✓	✓	✓	Turbines painted grey	C: Small O: Medium	Low to Medium	C: Minor O: Minor to Moderate	None	C: Minor O: Minor to Moderate	None

Receptor	Phase[a]			Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Further mitigation	Residual effect	Proposed Monitoring
	C	O	D							
south east Inshore Waters (RPS defined)					D: Small		D: Minor		D: Minor	
Morgan Generation Assets – Effects on National Landscape Character Areas										
Isle of Man Landscape Character Types LCT D Incised Inland Slopes, LCT E Rugged Coast **and** LCT H Coastal Cliffs	✓	✓	✓	Turbines painted grey	C: Small O: Small D: Small	Medium to High	C: Minor to Moderate O: Minor to Moderate D: Minor to Moderate	None	C: Minor to Moderate O: Minor to Moderate D: Minor to Moderate	None
Morgan Generation Assets – Effects on Visual Resources and Receptors										
Visual effects on people using National Trails/Long distance paths – Raad ny Foillan, Isle of Man	✓	✓	✓	Turbines painted grey	C: Small O: Small to Medium D: Small	High	C: Minor O: Moderate D: Minor	None	C: Minor O: Moderate D: Minor	None
Visual effects on people using National Trails/Long distance paths – Millennium Way, Isle of Man	✓	✓	✓	Turbines painted grey	C: Negligible O: Small D: Negligible	High	C: Negligible O: Minor D: Negligible	None	C: Negligible O: Minor D: Negligible	None
Visual effects on people using Countryside Rights of Way Act 2000 Access Land or equivalent land with	✓	✓	✓	Turbines painted grey	C: Negligible to Small O: Small D: Negligible to Small	High	C: Minor O: Minor to Moderate D: Minor	None	C: Minor O: Minor to Moderate D: Minor	None

Receptor	Phase[a]			Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Further mitigation	Residual effect	Proposed Monitoring
	C	O	D							
public access at Snaefell, Isle of Man										
Visual effects on people using Countryside Rights of Way Act 2000 Access Land or equivalent land with public access at Slieau Ruy and South Barrule, Isle of Man	✓	✓	✓	Turbines painted grey	C: Negligible to Small O: Small D: Negligible to Small	High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
Visual effects on people using National Cycle Routes (Isle of Man).	✓	✓	✓	Turbines painted grey	C: Negligible O: Negligible D: Negligible	Medium	C: Negligible O: Negligible D: Negligible	None	C: Negligible O: Negligible D: Negligible	None
Visual effects on people at main coastal settlements of Douglas and Laxey – Isle of Man.	✓	✓	✓	Turbines painted grey	C: Small O: Small to Medium D: Small	High	C: Minor to Moderate O: Moderate D: Minor to Moderate	None	C: Minor to Moderate O: Moderate D: Minor to Moderate	None
Visual effects on people travelling along coastal roads – Isle of Man.	✓	✓	✓	Turbines painted grey	C: Negligible to Small O: Small D: Negligible to Small	Low	C: Negligible O: Negligible to Minor D: Negligible	None	C: Negligible O: Negligible to Minor D: Negligible	None

Receptor	Phase[a]			Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Further mitigation	Residual effect	Proposed Monitoring
	C	O	D							
Visual effects on people travelling along coastal railways – Isle of Man.	✓	✓	✓	Turbines painted grey	C: Small O: Small to Medium D: Small	Medium	C: Minor O: Minor to Moderate D: Minor	None	C: Minor O: Minor to Moderate D: Minor	None
Visual effects on people using main ferry routes.	✓	✓	✓	Turbines painted grey	C: Medium O: Medium to Large D: Medium	Medium	C: Moderate O: Moderate to Major D: Moderate	None	C: Moderate O: Moderate to Major D: Moderate	None
Visual effects on other marine users – recreational sailors.	✓	✓	✓	Turbines painted grey	C: Small to Medium O: Medium D: Small to Medium	Medium	C: Minor to Moderate O: Moderate D: Minor to Moderate	None	C: Minor to Moderate O: Moderate D: Minor to Moderate	None
Morgan Generation Assets – Effects at representative viewpoints										
14 Cistercian Way, Walney Island	✓	✓	✓	Turbines painted grey	C: Negligible O: Hegligible D: Negligible	High	C: Negligible O: Negligible D: Negligible	None	C: Negligible O: Negligible D: Negligible	None
15 Blackpool North Pier	✓	✓	✓	Turbines painted grey	C: Negligible O: Negligible D: Negligible	High	C: Negligible O: Negligible D: Negligible	None	C: Negligible O: Negligible D: Negligible	None

Receptor	Phase[a]			Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Further mitigation	Residual effect	Proposed Monitoring
	C	O	D							
16 Cumbria Coastal Way, Lake District National Park	✓	✓	✓	Turbines painted grey	C: Negligible O: Negligible D: Negligible	Very High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
17 Buck Barrow, Lake District National Park	✓	✓	✓	Turbines painted grey	C: Negligible O: Negligible D: Negligible	Very High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
18 Herring Tower Trig Point, Langness Peninsula, Isle of Man.	✓	✓	✓	Turbines painted grey	C: Negligible to Small O: Small D: Negligible to Small	Very High	C: Minor O: Minor to Moderate D: Minor	None	C: Minor O: Minor to Moderate D: Minor	None
19 Panoramic viewpoint at Arch Southwest of Douglas Head, Isle of Man	✓	✓	✓	Turbines painted grey	C: Small O: Small to Medium D: Small	High	C: Minor to Moderate O: Moderate D: Minor to Moderate	None	C: Minor to Moderate O: Moderate D: Minor to Moderate	None
20 Snaefell Summit station trig point, Isle of Man	✓	✓	✓	Turbines painted grey	C: Negligible to Small O: Small D: Negligible to Small	High	C: Minor O: Minor to Moderate D: Minor	None	C: Minor O: Minor to Moderate D: Minor	None
Representative Viewpoint 21	✓	✓	✓	Turbines painted grey	C: Negligible	Medium	C: Negligible	None	C: Negligible	None

Receptor	Phase[a]			Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Further mitigation	Residual effect	Proposed Monitoring
	C	O	D							
Liverpool to Dublin (Ireland) Ferry					O: Negligible D: Negligible		O: Negligible D: Negligible		O: Negligible D: Negligible	
Representative Viewpoint 22 Liverpool to Douglas (Isle of Man) Ferry	✓	✓	✓	Turbines painted grey	C: Small O: Small to Medium D: Small	Medium	C: Minor O: Minor to Moderate D: Minor	None	C: Minor O: Minor to Moderate D: Minor	None
Representative viewpoint 23 Heysham to Douglas (Isle of Man) Ferry	✓	✓	✓	Turbines painted grey	C: Small O: Medium D: Small	Medium	C: Minor O: Moderate D: Minor	None	C: Minor O: Moderate D: Minor	None
Representative viewpoint 42 Maughold Head Lighthouse, Isle of Man	✓	✓	✓	Turbines painted grey	C: Negligible to Small O: Small to Medium D: Negligible to Small	High	C: Minor O: Moderate D: Minor	None	C: Minor O: Moderate D: Minor	None
Representative viewpoint 43 Old Laxey, Isle of Man	✓	✓	✓	Turbines painted grey	C: Small O: Small to Medium D: Small	High	C: Minor to Moderate O: Moderate D: Minor to Moderate	None	C: Minor to Moderate O: Moderate D: Minor to Moderate	None
Representative viewpoint 44 Slieau Ruy Cairn, Isle of Man	✓	✓	✓	Turbines painted grey	C: Negligible to Small O: Small D: Negligible to Small	High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None

Receptor	Phase[a]			Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Further mitigation	Residual effect	Proposed Monitoring
	C	O	D							
Representative viewpoint 45 South Barrule Cairn, Isle of Man	✓	✓	✓	Turbines painted grey	C: Negligible to Small O: Small D: Negligible to Small	High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
Representative viewpoint 46 Port St Mary, Isle of Man	✓	✓	✓	Turbines painted grey	C: Negligible to Small O: Negligible to Small D: Negligible to Small	High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
Representative viewpoint 49 Douglas Promenade, Isle of Man	✓	✓	✓	Turbines painted grey	C: Small O: Small to Medium D: Small	High	C: Minor to Moderate O: Moderate D: Minor to Moderate	None	C: Minor to Moderate O: Moderate D: Minor to Moderate	None
Representative viewpoint 50 Coast Path at Chasm/Sugarloaf, Isle of Man	✓	✓	✓	Turbines painted grey	C: Negligible to Small O: Small D: Negligible to Small	High	C: Minor O: Minor to Moderate D: Minor	None	C: Minor O: Minor to Moderate D: Minor	None
Representative viewpoint 51 Blackpool Tower	✓	✓	✓	Turbines painted grey	C: Negligible O: Negligible D: Negligible	High	C: Negligible O: Negligible D: Negligible	None	C: Negligible O: Negligible D: Negligible	None
Representative viewpoint 55 Trwyn Eilian (Point Lynas),	✓	✓	✓	Turbines painted grey	C: Negligible O: Negligible D: Negligible	High	C: Negligible O: Negligible D: Negligible	None	C: Negligible O: Negligible D: Negligible	None

Receptor	Phase[a]			Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Further mitigation	Residual effect	Proposed Monitoring
	C	O	D							
Isle of Anglesey National Landscape										
Representative viewpoint 58 Muncaster Fell, Lake District National Park	✓	✓	✓	Turbines painted grey	C: Negligible O: Negligible D: Negligible	Very High	C: Negligible O: Negligible D: Negligible	None	C: Negligible O: Negligible D: Negligible	None
Representative viewpoint 59 Black Combe, Lake District National Park	✓	✓	✓	Turbines painted grey	C: Negligible O: Negligible D: Negligible	Very High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
Representative viewpoint 60 Whit Fell, Lake District National Park	✓	✓	✓	Turbines painted grey	C: Negligible O: Negligible D: Negligible	Very High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None
Representative viewpoint 61 Whin Rigg, Lake District National Park	✓	✓	✓	Turbines painted grey	C: Negligible O: Negligible D: Negligible	Very High	C: Minor O: Minor D: Minor	None	C: Minor O: Minor D: Minor	None

10.13.2 Summary of the cumulative effects of Morgan Generation Assets

10.13.2.1 Table 10.24 presents a summary of the potential cumulative seascape, landscape and visual impacts, mitigation measures and residual effects. The cumulative impacts assessed include:

- Incremental and filling cumulative effects together with existing developments of the same type
- Combined and sequential visual effects together with proposed projects.

10.13.2.2 The cumulative assessment considered the cumulative effects resulting from the addition of Morgan Generation Assets to the baseline alongside the Morgan and Morecambe Offshore Wind Farms: Transmission Assets and Morecambe Generation Assets and concluded moderate to major and potentially significant cumulative effects on MCA 38: Irish Sea South.

10.13.2.3 The cumulative assessment also considered the cumulative effects resulting from the addition of Morgan Generation Assets to Tier 1 existing offshore wind farms, the consented Awel y Môr Offshore Wind Farm and the submitted Mona Offshore Wind Project. The cumulative assessment also considered proposed Tier 2 offshore wind farms, including Mooir Vannin and Morecambe Offshore Windfarm. Potential significant cumulative effects are assessed to arise to Isle of Man Landscape Character along the coast and for individuals on the Raad ny Foillan coastal path due to the addition of Morgan Generation Assets and existing offshore wind farms and the consented Awel y Môr Offshore Wind Farm and the submitted Mona Offshore Wind Project.

Table 10.24: Summary of potential cumulative landscape, seascape and visual effects arising from the Morgan Generation Assets, mitigation and monitoring.

[a] C=construction, O=operations and maintenance, D=decommissioning

Description	Phase[a]			Measures adopted as part of the project	Magnitude of cumulative impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Scenario 3: Tier 1 – Existing Offshore Wind Farms										
Landscape fabric	×	✓	×	Turbines painted grey	O: no change	N/A	N/A	N/A	N/A	N/A
Seascape fabric (Morgan Generation Assets within MCA 38).	×	✓	×	Turbines painted grey	O: small	O: low to medium	O: minor adverse (not significant)	None	O: minor adverse (not significant)	None
MCA 38 Irish Sea South **Cumulative effects on aesthetic aspects and overall seascape character.**	×	✓	×	Turbines painted grey	O: medium	O: low to medium	O: minor to moderate adverse (not significant)	None	O: minor to moderate adverse (not significant)	None
MCA A Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters. **Cumulative effects on aesthetic aspects and overall seascape character.**	×	✓	×	Turbines painted grey	O: medium	O: low to medium	O: minor to moderate adverse (not significant)	None	O: minor to moderate adverse (not significant)	None

Description	Phase[a]			Measures adopted as part of the project	Magnitude of cumulative impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Seascape Sensitivity Zone (SSZ) 5 North Wales and Anglesey Outer Offshore **Cumulative effects on aesthetic aspects and overall seascape character.**	×	✓	×	Turbines painted grey	O: negligible to small	O: low to medium	O: negligible to minor adverse (not significant)	None	O: negligible to minor adverse (not significant)	None
Isle of Man Landscape Character Types: LCT E Rugged Coast, LCT D Incised Slopes and LCT H Coastal Cliffs. **Cumulative effects on aesthetic aspects and overall landscape character .**	×	✓	×		O: medium	O: medium to high	O: moderate to major adverse (not significant)	None	O: moderate to major adverse (not significant)	None
Visual receptors – national trails and long distance paths – **Raad ny Foillan Coastal Path**	×	✓	×	Turbines painted grey	O: medium	O: high	O: moderate to major adverse (not significant)	None	O: moderate to major adverse (not significant)	None

Description	Phase[a]			Measures adopted as part of the project	Magnitude of cumulative impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Visual receptors – national trails and long distance paths – Millennium Way	×	✓	×	Turbines painted grey	O: negligible to small	O: high	O: minor adverse (not significant)	None	O: minor adverse (not significant)	None
Visual receptors – main settlements seafronts/popular destinations – Douglas and Laxey.	×	✓	×	Turbines painted grey	O: medium	O: high	O: moderate to major adverse (not significant)	None	O: moderate to major adverse (not significant)	None
Visual receptors – main ferry routes – Liverpool to Douglas and Heysham to Douglas.	×	✓	×	Turbines painted grey	O: small to medium	O: medium	O: minor to moderate adverse (not significant)	None	O: minor to moderate adverse (not significant)	None
Scenario 3: Tier 1 – Existing, Consented and Submitted Offshore Wind Farms										
MCA 38 Irish Sea South **Cumulative effects on aesthetic aspects and overall seascape character.**	✓	✓	✓	Turbines painted grey	C: small O: small to medium D: small	C: low to medium O: low to medium D: low to medium	C: negligible to minor O: minor adverse (not significant) D: negligible to minor	None	C: negligible to minor O: minor adverse (not significant) D: negligible to minor	None

Description	Phase[a]			Measures adopted as part of the project	Magnitude of cumulative impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
MCA A Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters. **Cumulative effects on aesthetic aspects and overall seascape character.**	✓	✓	✓	Turbines painted grey	C: negligible O: medium D: negligible	C: low to medium O: low to medium D: low to medium	C: negligible O: minor to moderate adverse (not significant) D: negligible	None	C: negligible O: minor to moderate adverse (not significant) D: negligible	None
Seascape Sensitivity Zone (SSZ) 5 North Wales and Anglesey Outer Offshore **Cumulative effects on aesthetic aspects and overall seascape character.**	✓	✓	✓	Turbines painted grey	C: negligible O: medium D: negligible	C: low to medium O: low to medium D: low to medium	C: negligible O: minor to moderate adverse (not significant) D: negligible	None	C: negligible O: minor to moderate adverse (not significant) D: negligible	None
Isle of Man Landscape Character Types: LCT E Rugged Coast, LCT D Incised Slopes and LCT H Coastal Cliffs.	✓	✓	✓		C: negligible O: medium D: negligible	C: medium to high O: medium to high D: medium to high	C: minor O: moderate to major adverse (potentially significant) D: minor	None	C: minor O: moderate to major adverse (potentially significant) D: minor	None

Description	Phase[a]			Measures adopted as part of the project	Magnitude of cumulative impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Cumulative effects on aesthetic aspects and overall landscape character .										
Visual receptors – national trails and long distance paths – Raad ny Foillan Coastal Path	✓	✓	✓	Turbines painted grey	C: negligible O: medium D: negligible	C: high O: high D: high	C: minor O: moderate to major adverse (potentially significant) D: minor	None	C: minor O: moderate to major adverse (potentially significant) D: minor	None
Visual receptors – national trails and long distance paths – Millennium Way	✓	✓	✓	Turbines painted grey	C: negligible O: small D: negligible	C: high O: high D: high	C: minor O: minor to moderate adverse (not significant) D: minor	None	C: minor O: minor to moderate adverse (not significant) D: minor	None
Visual receptors – main settlements seafronts/popular destinations – Douglas and Laxey.	✓	✓	✓	Turbines painted grey	C: negligible O: medium D: negligible	C: high O: high D: high	C: minor O: moderate to major adverse (not significant) D: minor	None	C: minor O: moderate to major adverse (not significant) D: minor	None
Visual receptors – main ferry routes – Liverpool to Douglas and	✓	✓	✓	Turbines painted grey	C: negligible O: small to medium D: negligible	C: medium O: medium D: medium	C: negligible O: minor to moderate adverse (not significant)	None	C: negligible O: minor to moderate adverse (not significant)	None

Description	Phase[a]			Measures adopted as part of the project	Magnitude of cumulative impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Heysham to Douglas.							D: negligible		D: negligible	
Scenario 3: Tier 2 – Proposed Offshore Wind Farms										
Landscape fabric	✓	✓	✓	Turbines painted grey	C: no change O: no change D: no change	N/A	N/A	N/A	N/A	N/A
Seascape fabric (Morgan Generation Assets within MCA 38).	✓	✓	✓	Turbines painted grey	C: negligible O: small D: negligible	C: low to medium O: low to medium D: low to medium	C: negligible to minor O: minor adverse (not significant) D: negligible to minor	None	C: negligible to minor O: minor adverse (not significant) D: negligible to minor	None
MCA 38 Irish Sea South **Cumulative effects on aesthetic aspects and overall seascape character with Tier 2 existing offshore wind farms.**	✓	✓	✓	Turbines painted grey	C: small O: medium to large D: small	C: low to medium O: low to medium D: low to medium	C: negligible to minor O: moderate to major adverse (not significant) D: negligible to minor	None	C: negligible to minor O: moderate to major adverse (not significant) D: negligible to minor	None
MCA A Dreswick Point to Maughold Head, Isle of Man Southeast Inshore Waters	✓	✓	✓	Turbines painted grey	C: negligible O: medium D: negligible	C: low to medium O: low to medium D: low to medium	C: negligible O: moderate adverse (not significant) D: negligible	None	C: negligible O: moderate adverse (not significant) D: negligible	None

Description	Phase[a]			Measures adopted as part of the project	Magnitude of cumulative impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Cumulative effects on aesthetic aspects and overall seascape character with Tier 2 existing offshore wind farms.										
Seascape Sensitivity Zone (SSZ) 5 North Wales and Anglesey Outer Offshore **Cumulative effects on aesthetic aspects and overall seascape character with Tier 2 existing offshore wind farms.**	✓	✓	✓	Turbines painted grey	C: negligible O: small D: negligible	C: low to medium O: low to medium D: low to medium	C: negligible O: minor adverse (not significant) D: negligible	None	C: negligible O: minor adverse (not significant) D: negligible	None
Isle of Man Landscape Character Types: LCT E Rugged Coast, LCT D Incised Slopes and LCT H Coastal Cliffs. **Cumulative effects on**	✓	✓	✓		C: negligible to small O: small D: negligible to small	C: medium to high O: medium to high D: medium to high	C: minor O: minor to moderate adverse (not significant) D: minor	None	C: minor O: minor to moderate adverse (not significant) D: minor	None

Description	Phase[a]			Measures adopted as part of the project	Magnitude of cumulative impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
aesthetic aspects and overall landscape character with Tier 2 existing offshore wind farms.										
Visual receptors – national trails and long distance paths – Raad ny Foillan Coastal Path	✓	✓	✓	Turbines painted grey	C: negligible to small O: medium D: negligible to small	C: high O: high D: high	C: minor (not significant) O: moderate to major adverse (not significant) D: minor (not significant	None	C: minor (not significant) O: moderate to major adverse (not significant) D: minor (not significant	None
Visual receptors – national trails and long distance paths – Millennium Way	✓	✓	✓	Turbines painted grey	C: negligible O: negligible to small D: negligible	C: high O: high D: high	C: negligible O: minor adverse (not significant) D: negligible	None	C: negligible O: minor adverse (not significant) D: negligible	None
Visual receptors – main settlements seafronts/popular destinations – Douglas and Laxey.	✓	✓	✓	Turbines painted grey	C: negligible to small O: medium D: negligible to small	C: high O: high D: high	C: minor (not significant) O: moderate to major adverse (not significant) D: minor (not significant)	None	C: minor (not significant) O: moderate to major adverse (not significant) D: minor (not significant)	None

Description	Phase[a]			Measures adopted as part of the project	Magnitude of cumulative impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Visual receptors – main ferry routes – Liverpool to Douglas and Heysham to Douglas.	✓	✓	✓	Turbines painted grey	C: small O: medium D: small	C: medium O: medium D: medium	C: minor O: moderate adverse (not significant) D: minor	None	C: minor O: moderate adverse (not significant) D: minor	None

10.14 References

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Appendix A: Figures

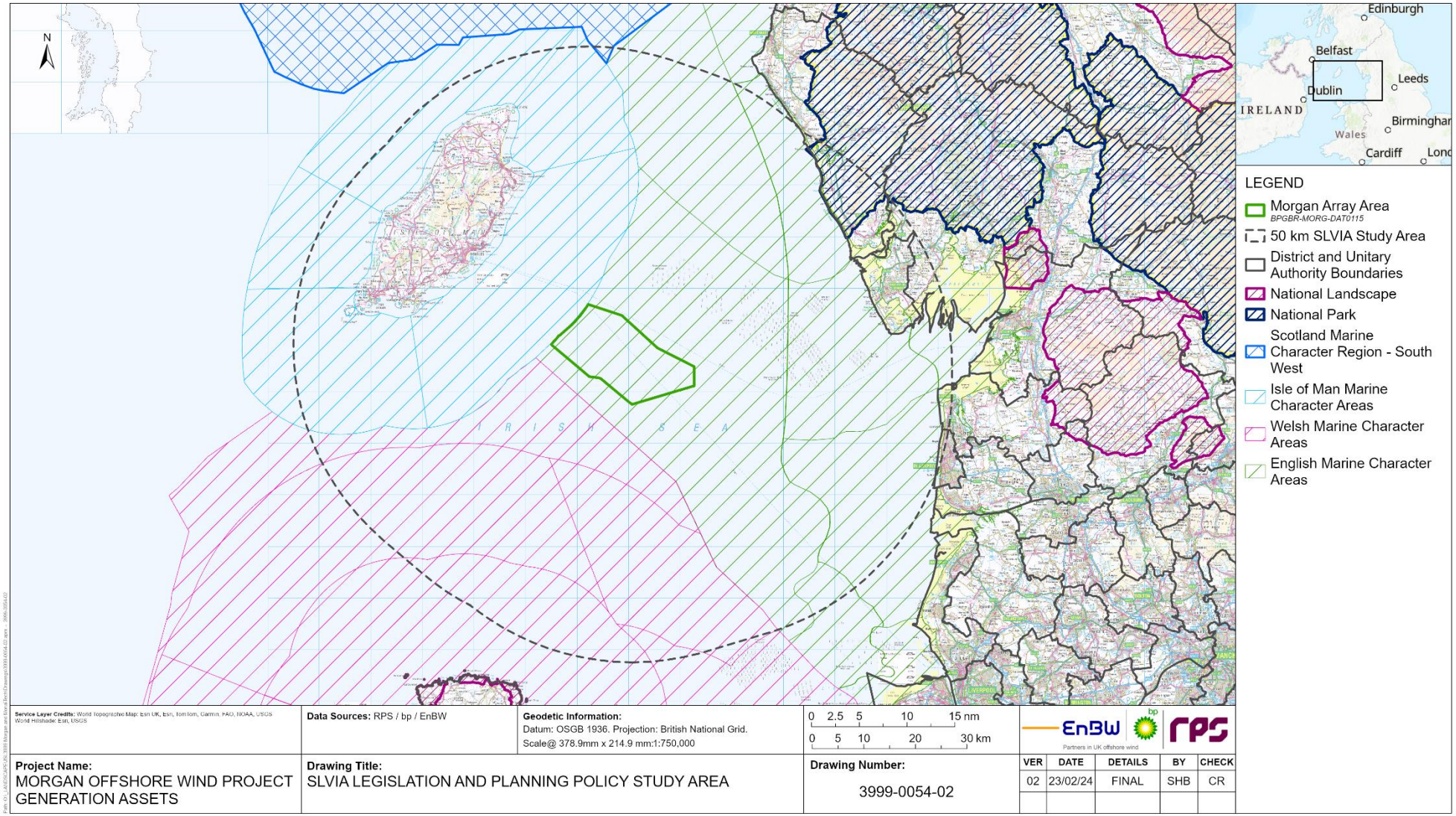

Figure A.1: SLVIA legislation and planning policy study area.

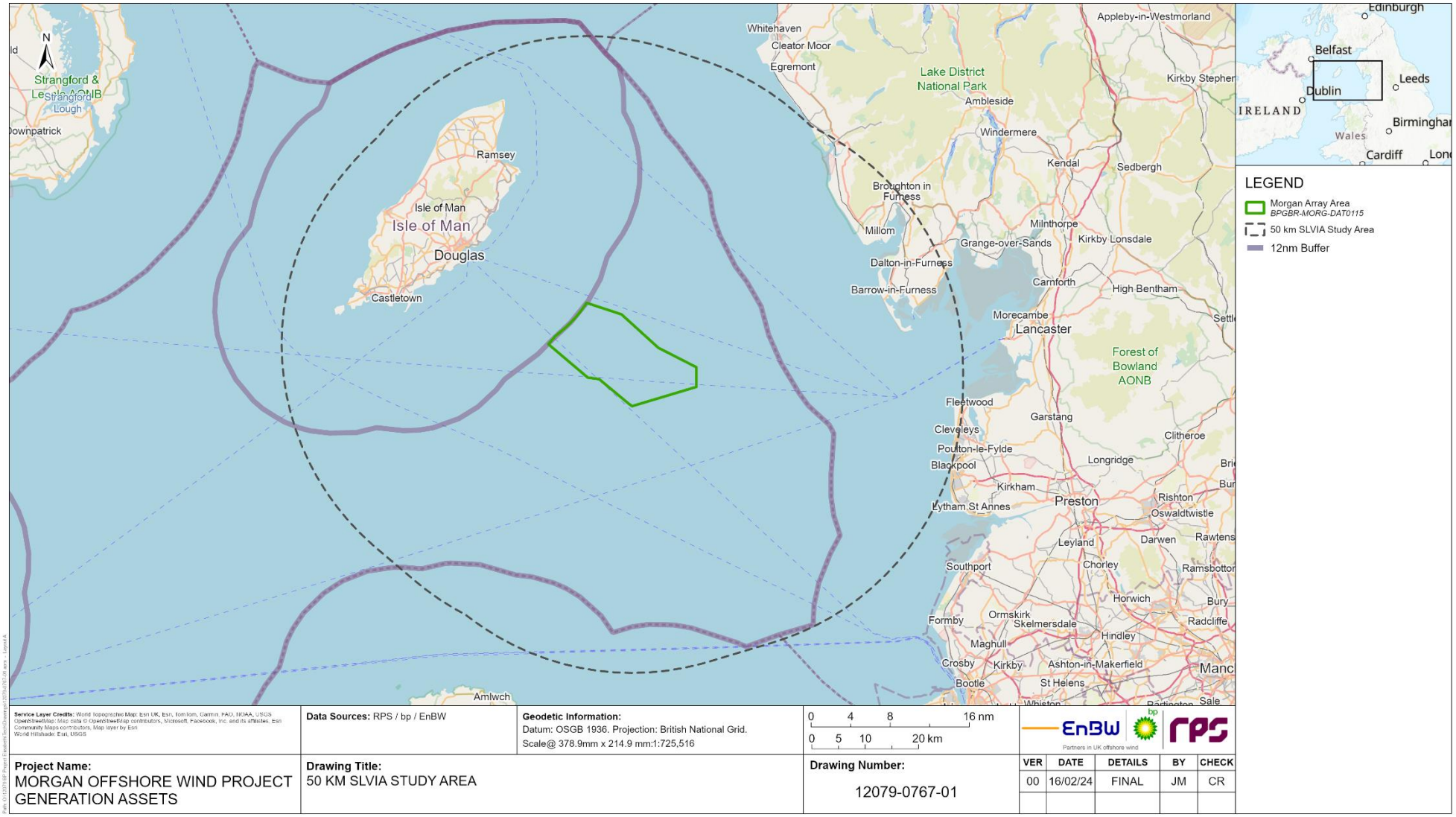

Figure A.2: 50 km SLVIA study area.

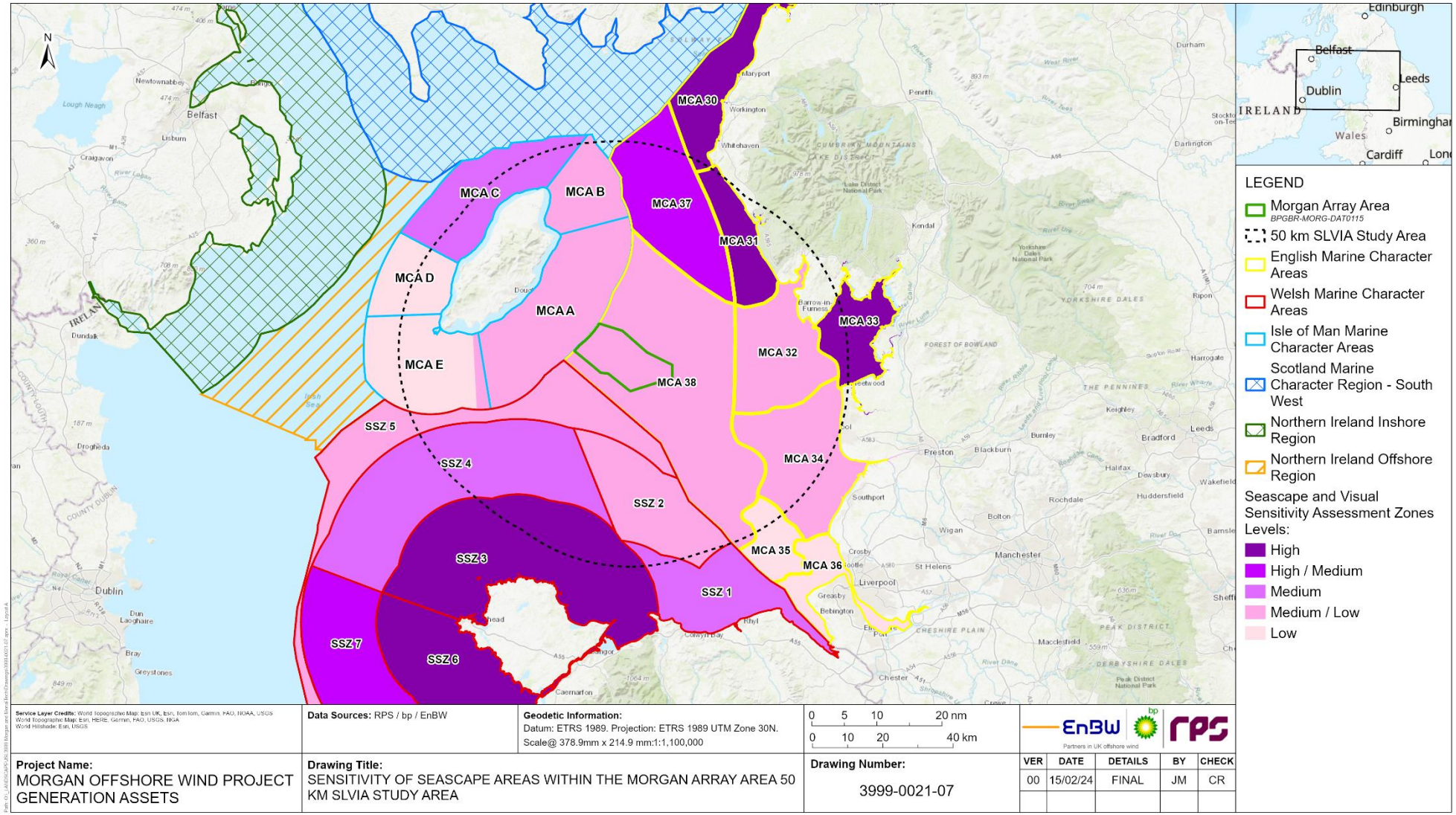

Figure A.3: Sensitivity of seascape areas within the Morgan Array Area 50 km SLVIA study area.

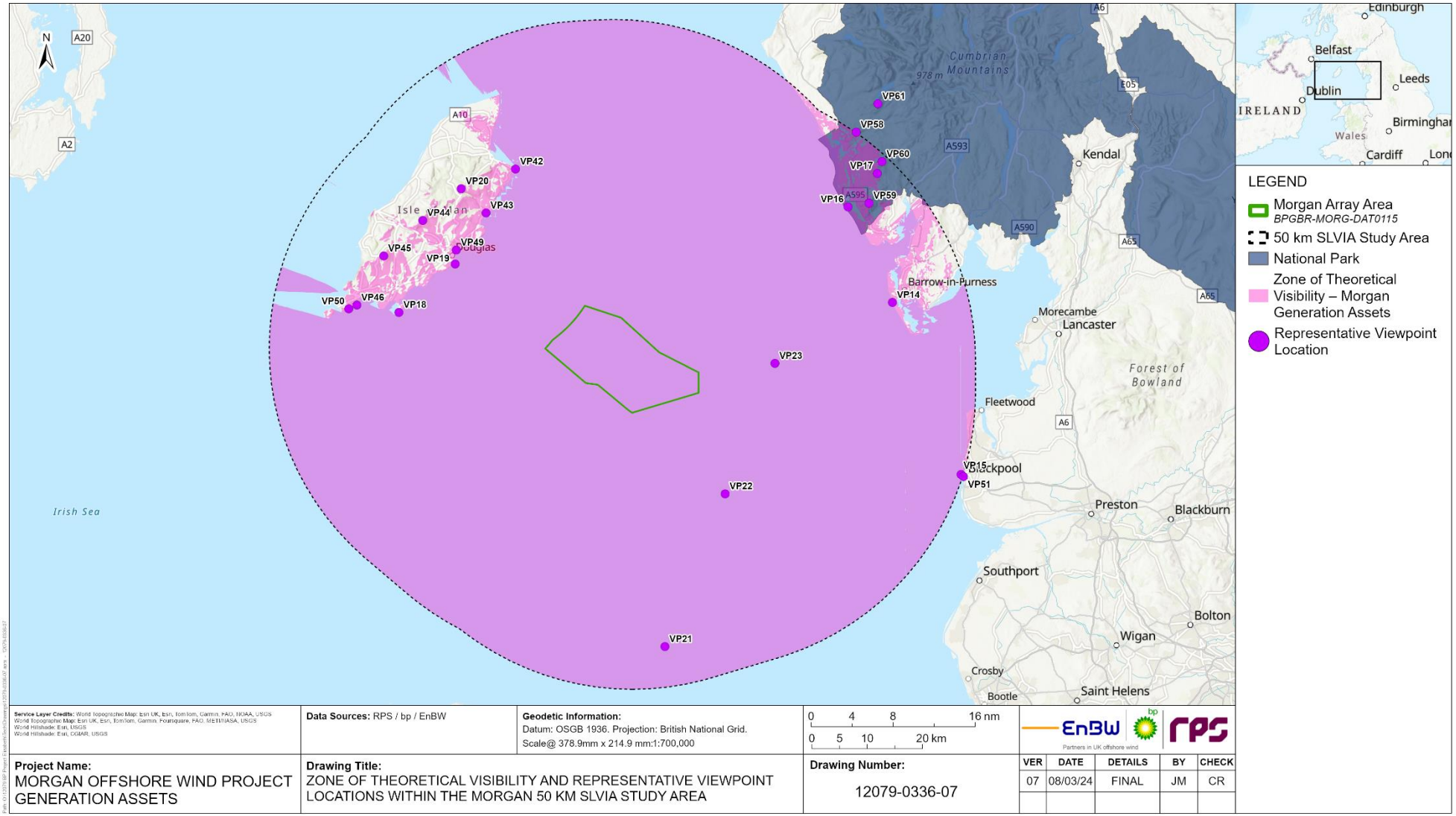

Figure A.4: Zone of Theoretical Visibility and representative viewpoint locations within the Morgan Generation Assets 50 km SLVIA study area.

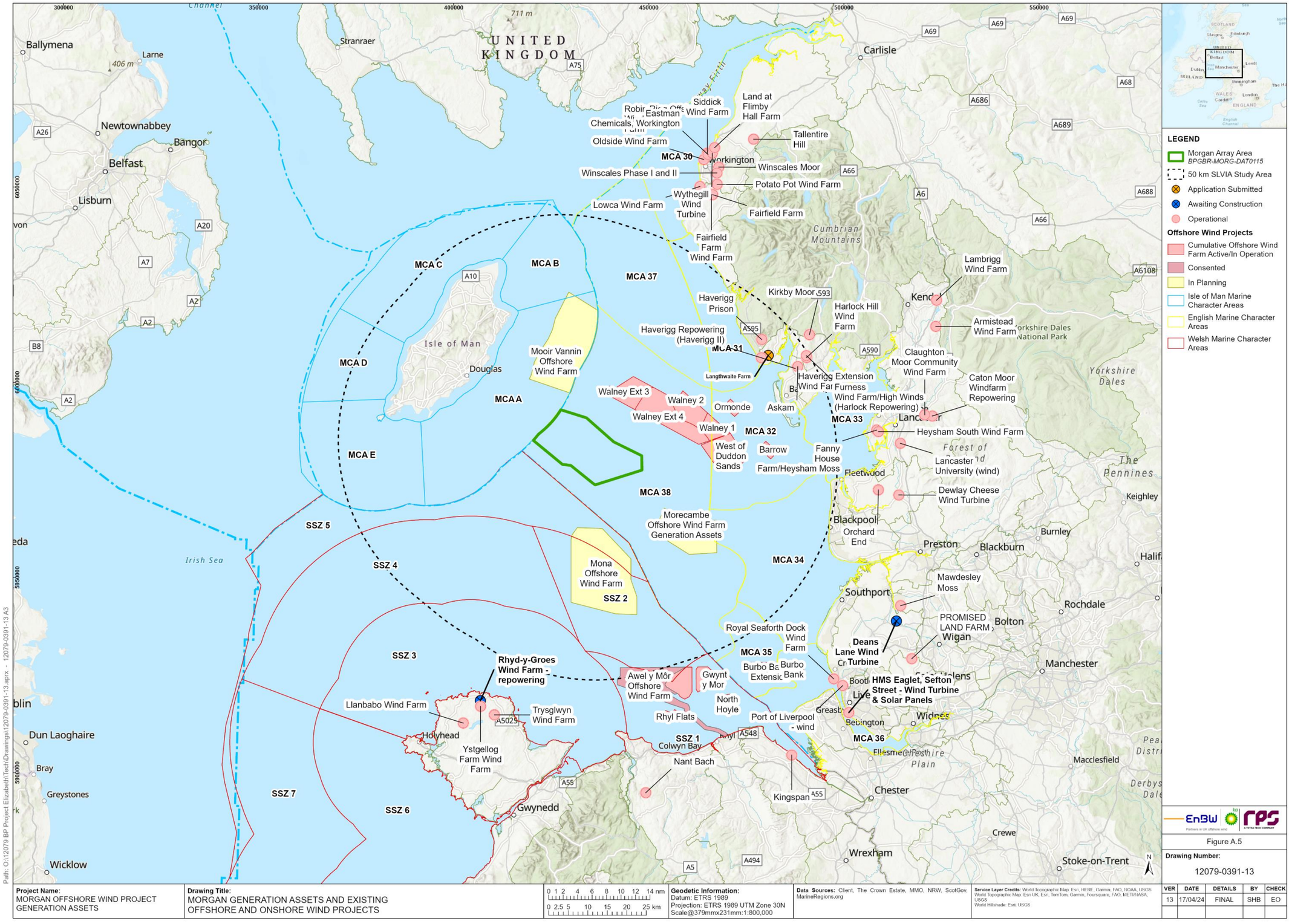

Figure A.5: Morgan Generation Assets and offshore and onshore wind projects.

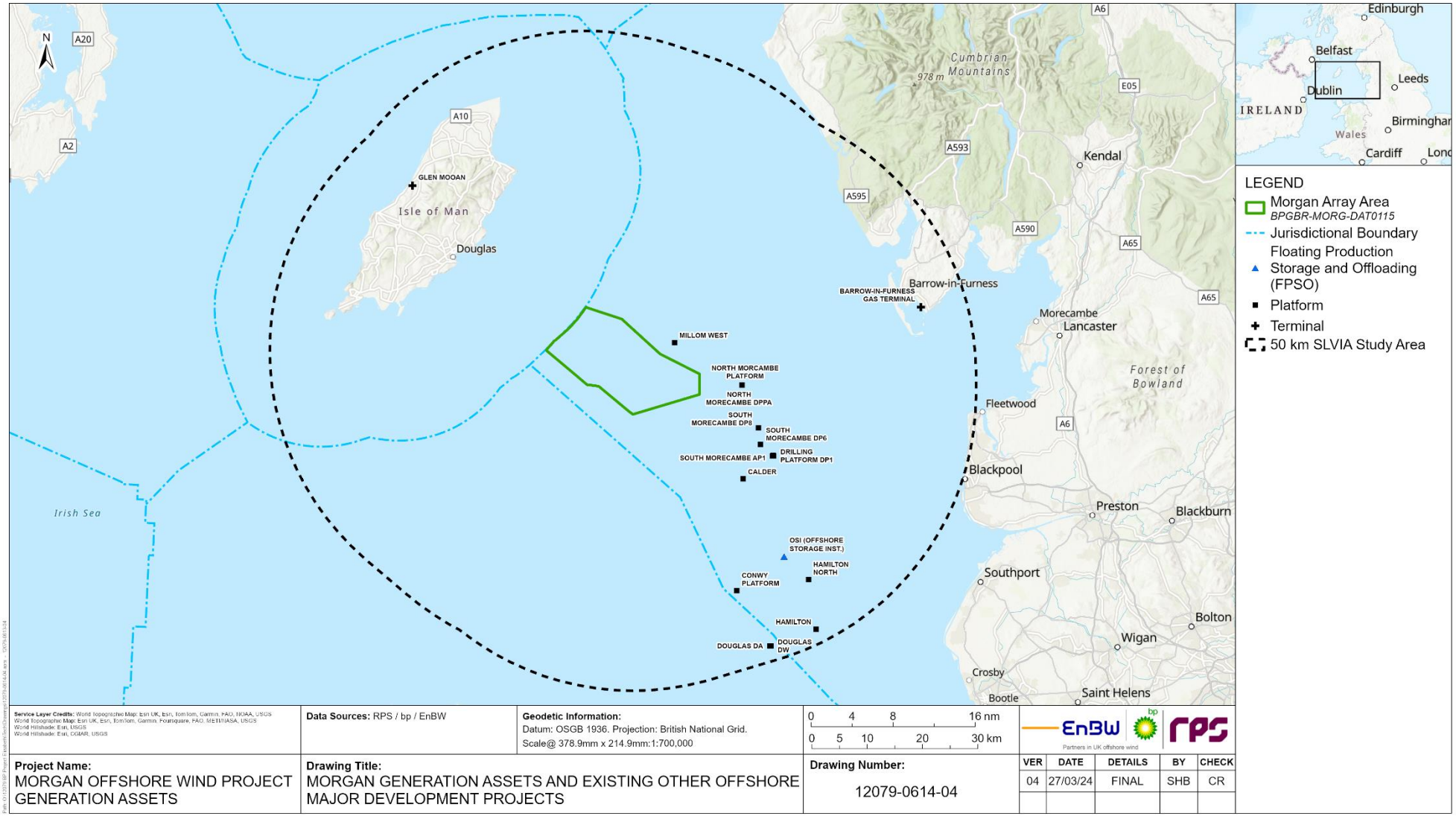

Figure A.6: Morgan Generation Assets and existing other offshore major development projects.

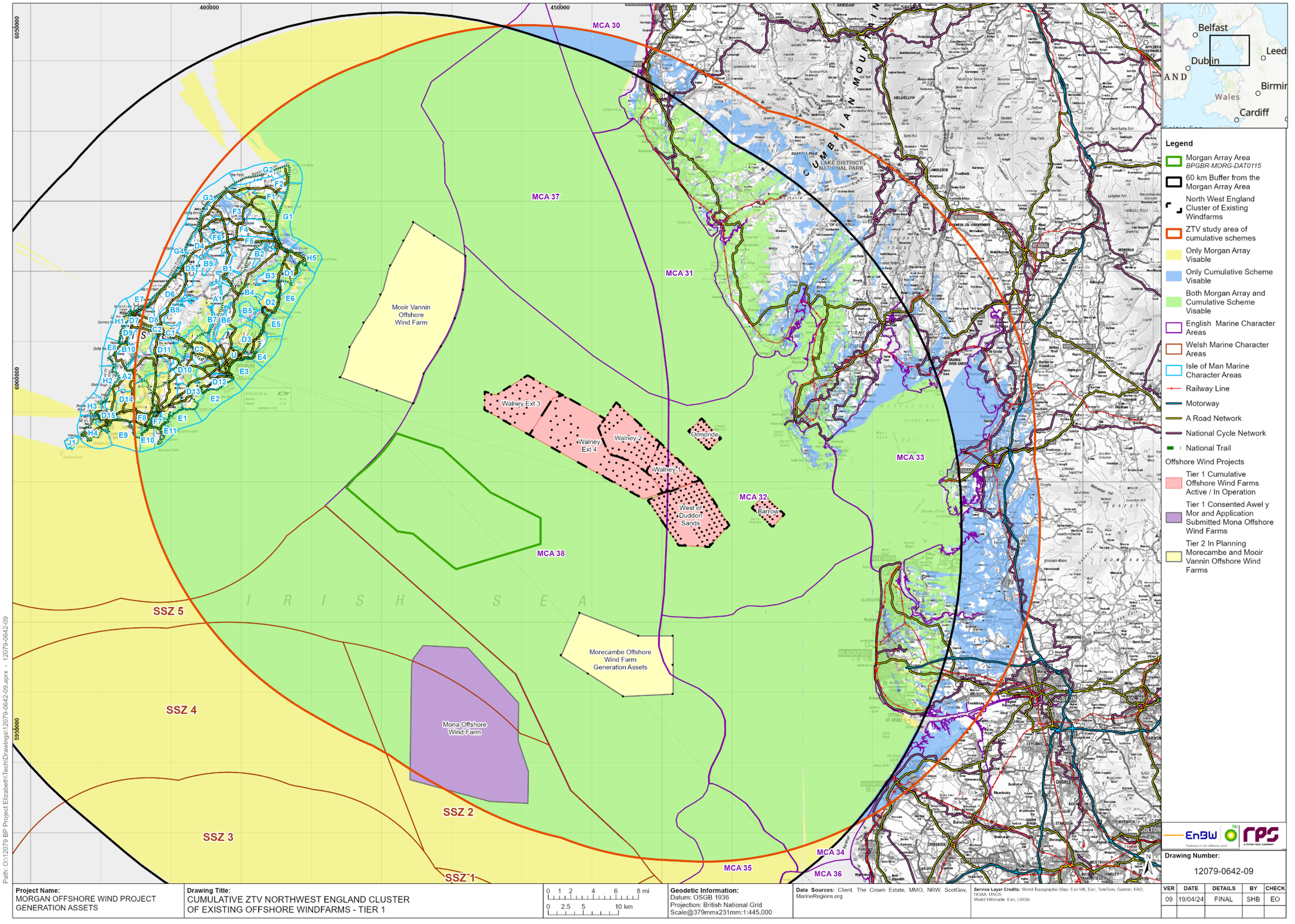

Figure A.7: Cumulative ZTV Northwest England cluster of existing offshore wind farms.

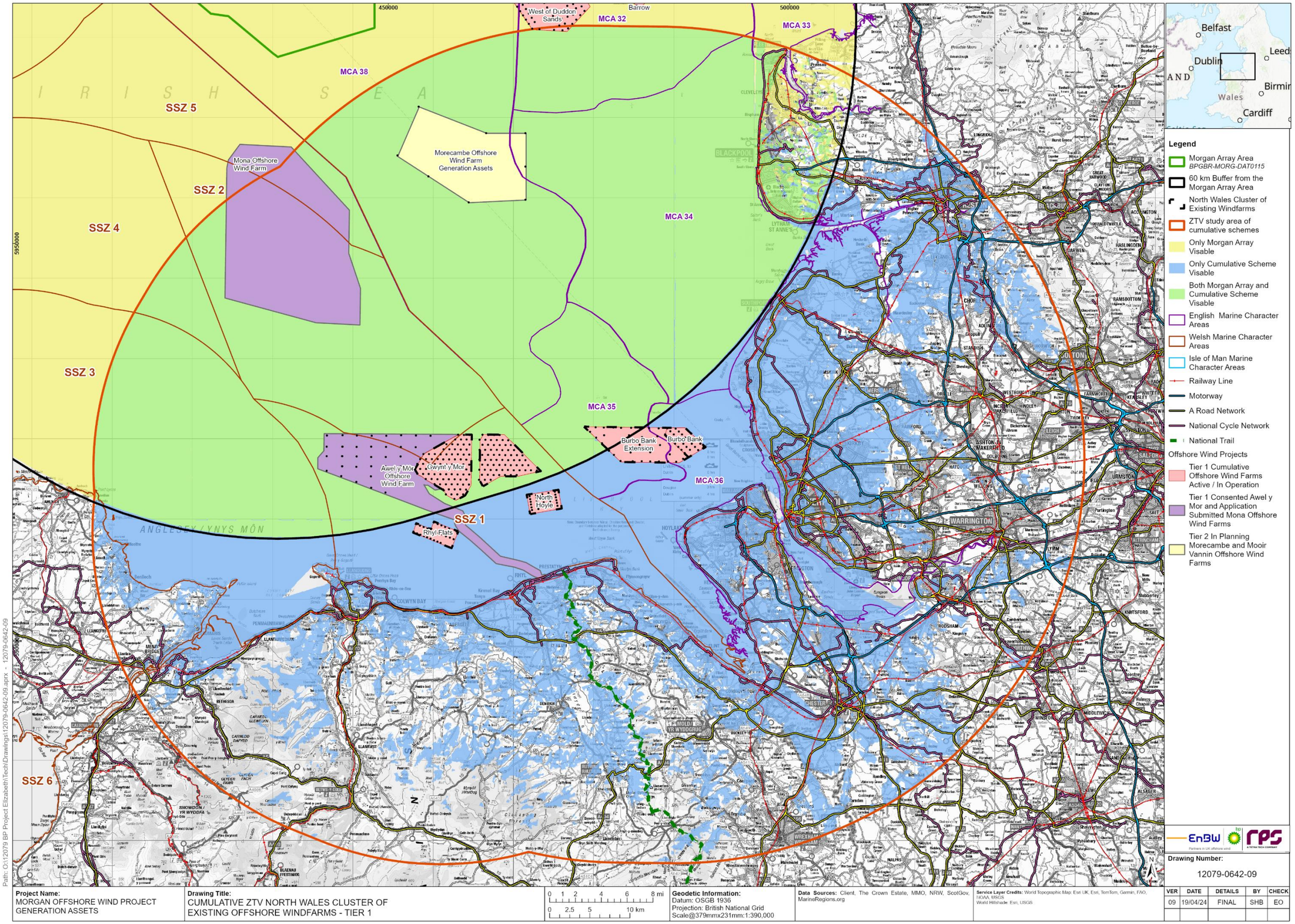

Figure A.8: Cumulative ZTV North Wales Cluster of existing offshore wind farms.

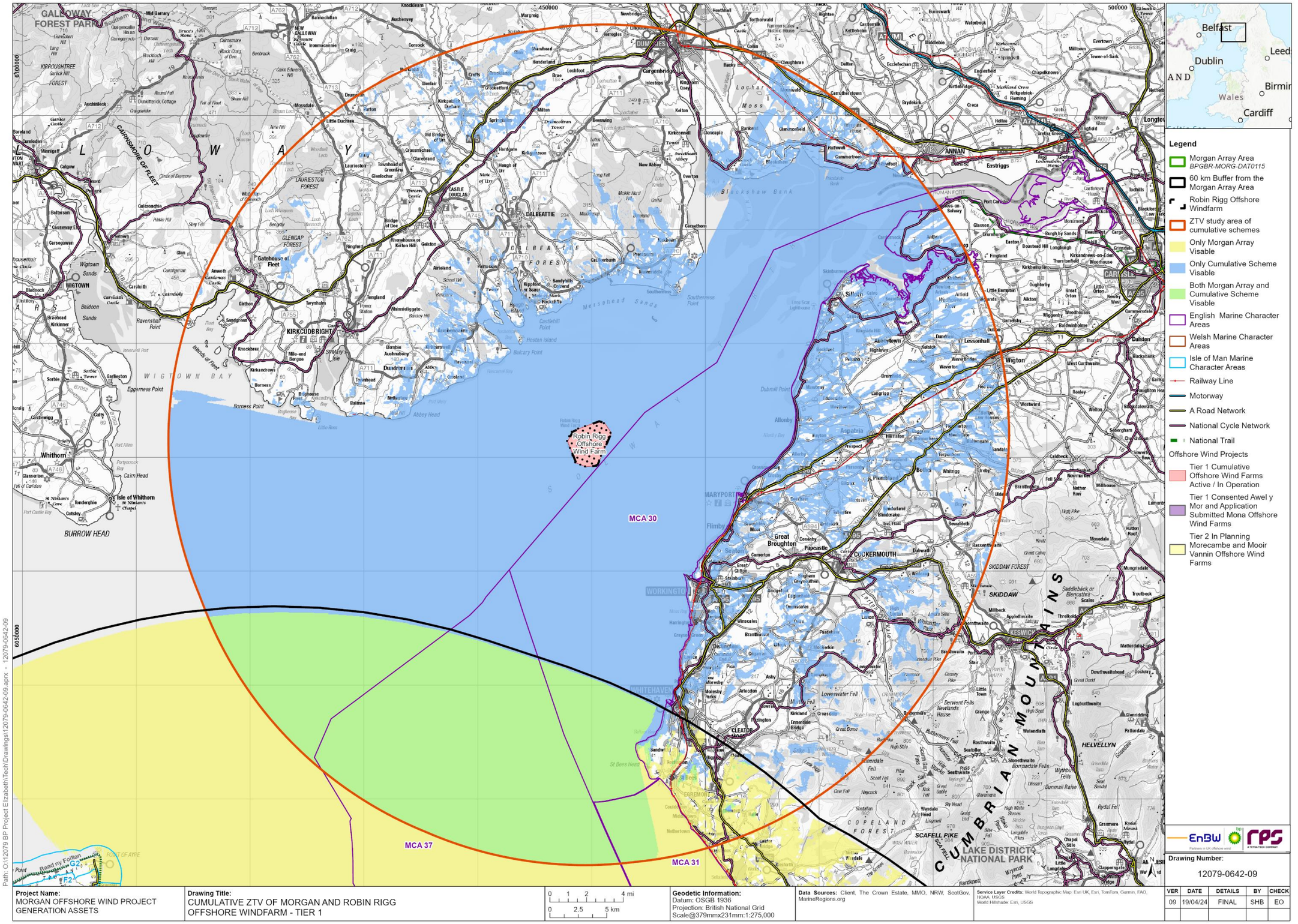

Figure A.9: Cumulative ZTV of Morgan Generation Assets and Robin Rigg existing offshore wind farm.

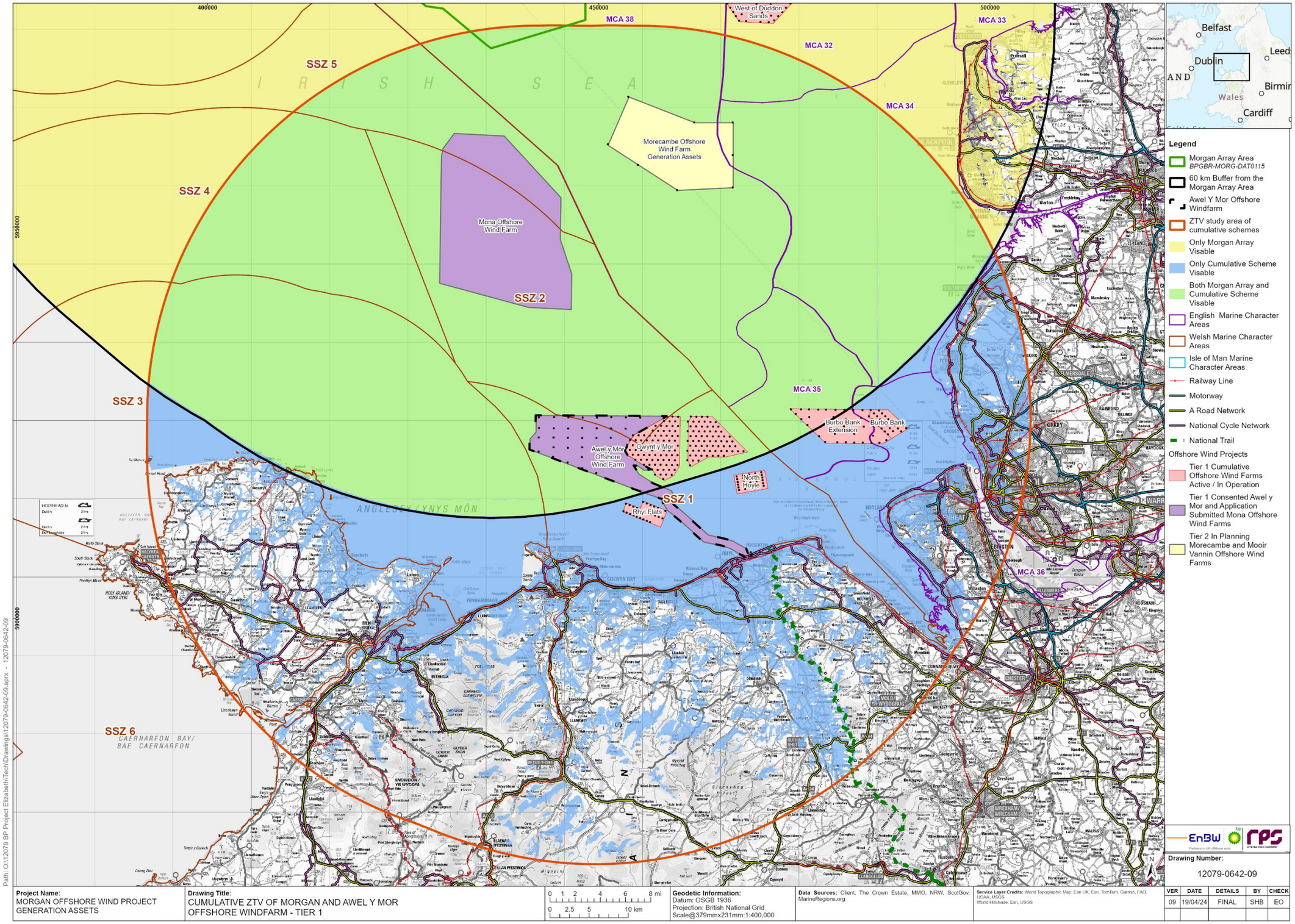

Figure A.10: Cumulative ZTV of Morgan Generation Assets and Awel y Môr consented offshore wind farm.

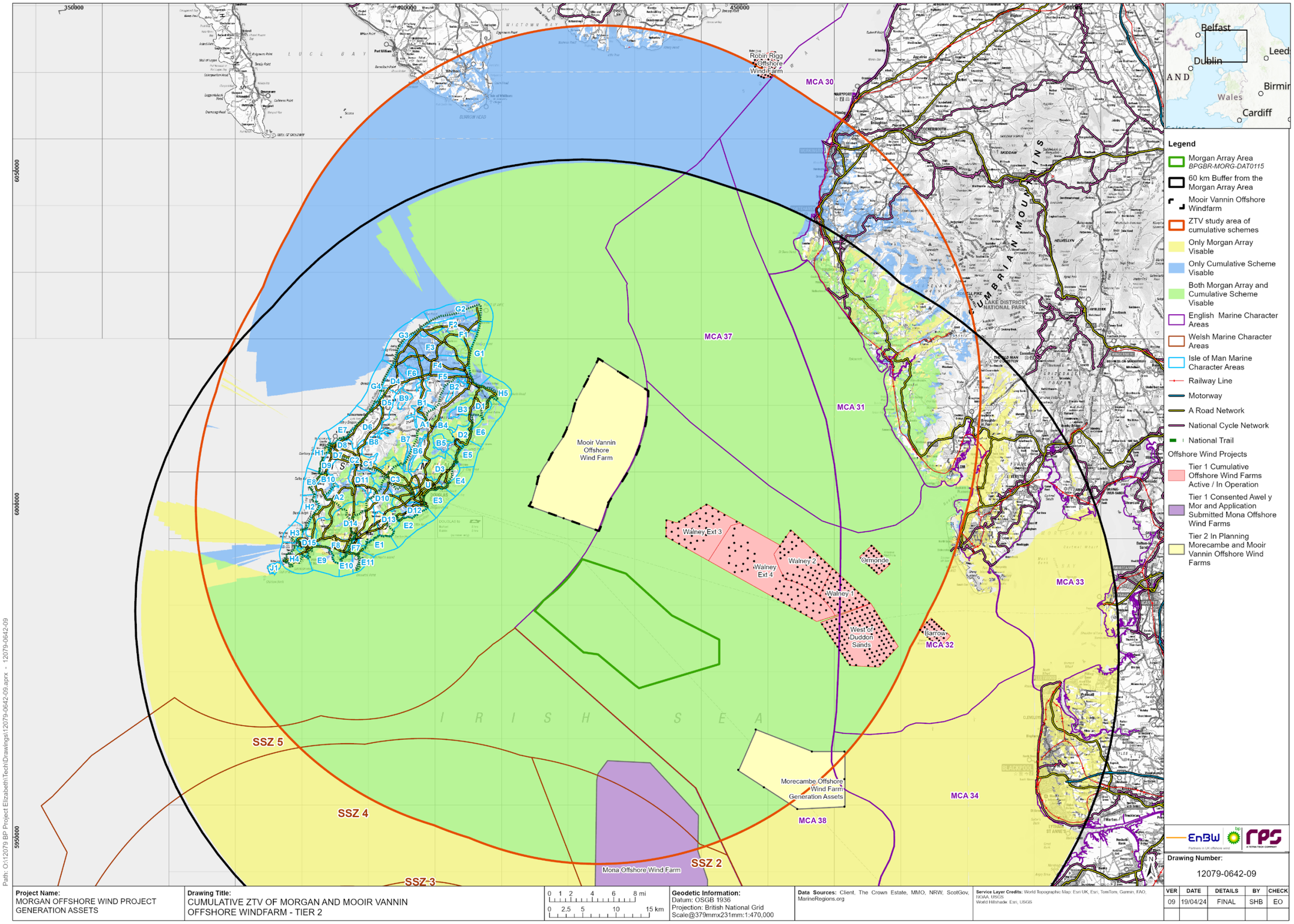

Figure A.11: Cumulative ZTV of Morgan Generation Assets and Mooir Vannin proposed offshore wind farm.

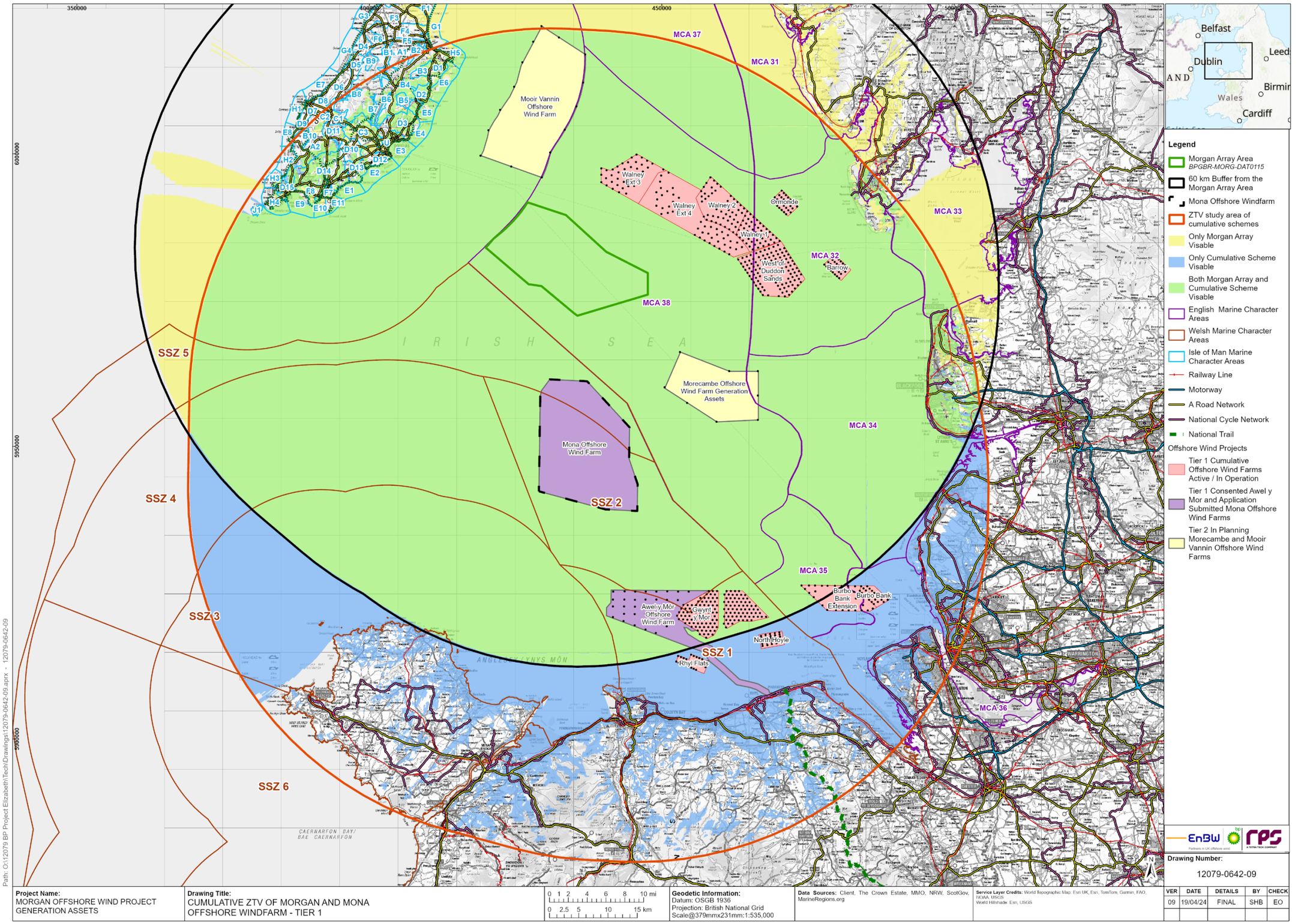

Figure A.12: Cumulative ZTV of Morgan Generation Assets and Mona Offshore Wind Project.

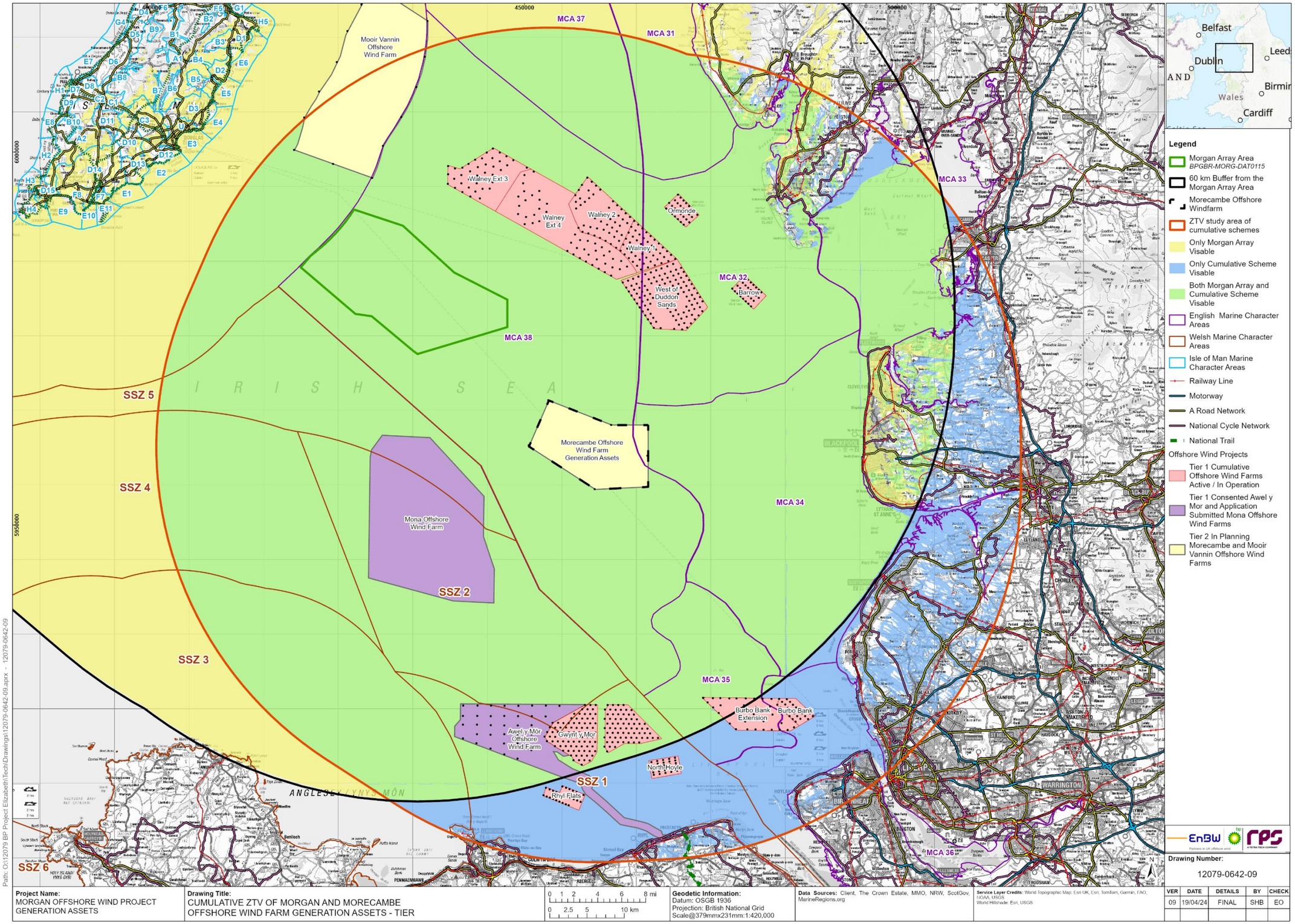

Figure A.13: Cumulative ZTV of Morgan Generation Assets and Morecambe Generation Assets.

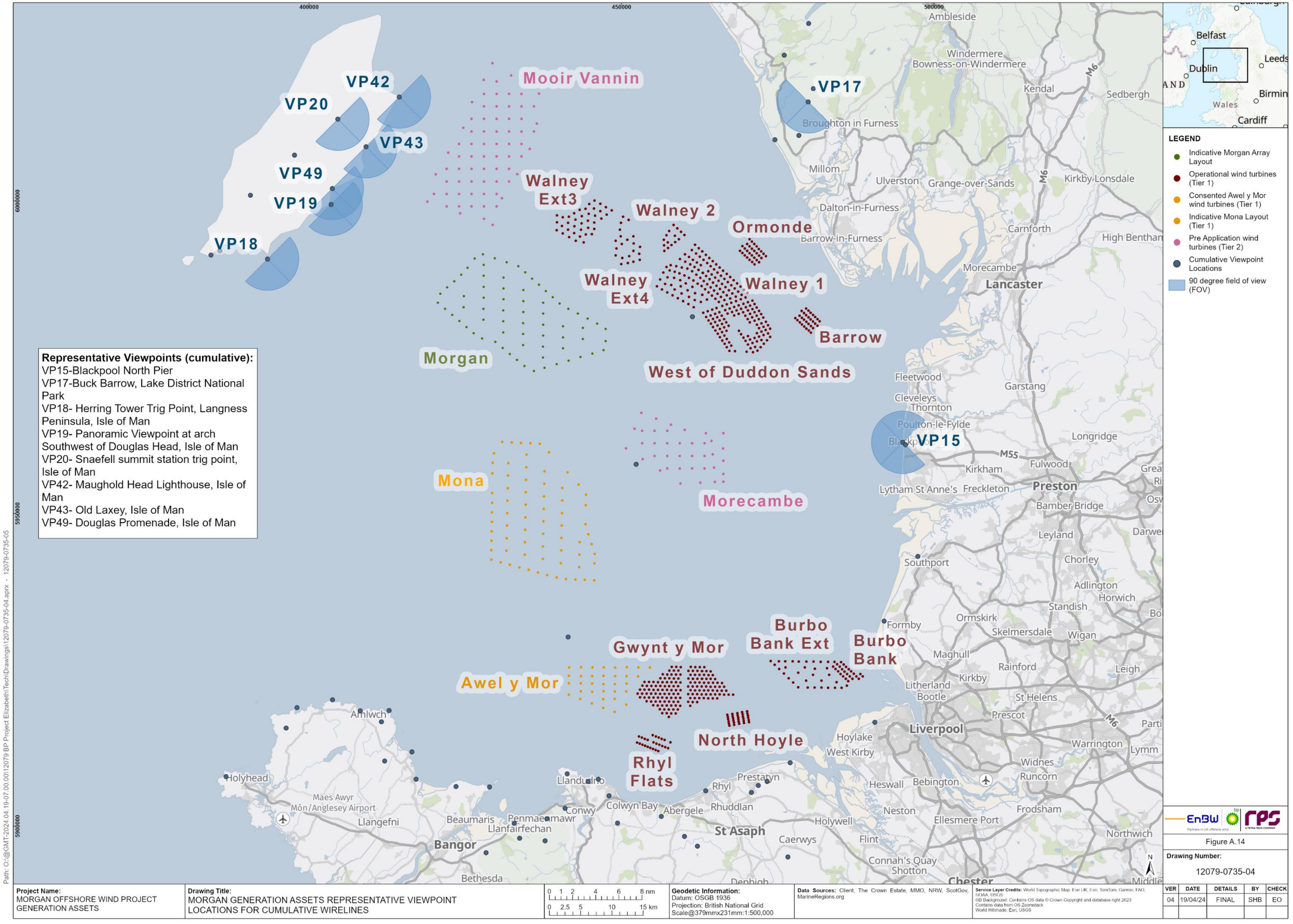

Figure A.14: Morgan Generation Assets representative viewpoint locations for cumulative wirelines.

Appendix B Cumulative effects assessment – baseline projects

10.14.1.1 The existing onshore and offshore wind farm projects and major developments within the respective SLVIA CEA study area (detailed in section 10.9 above) with the potential to cause cumulative seascape, landscape and visual effects with the Morgan Generation Assets and Morgan and Morecambe Offshore Wind Farms: Transmission Assets are listed below and shown on Figure A.5.

B.1 Offshore wind farms

- Northwest England Cluster
  - Barrow (30 km from Morgan Generation Assets) 30 wind turbines, 120 m to tip
  - Ormonde (23 km from Morgan Generation Assets) 30 wind turbines, 153 m to tip
  - Walney (12 km from Morgan Generation Assets) 102 wind turbines with tip heights of 150 m
  - Walney Extension (7.5 km from Morgan Generation Assets) 87 wind turbines with tip heights in the range of 188 m to 195 m
  - West of Duddon Sands (15 km from Morgan Generation Assets) 108 wind turbines, 150 m to tip.
- North Wales Cluster
  - Burbo Bank (61 km from Morgan Generation Assets) 25 wind turbines, 138 m to tip
  - Burbo Bank Extension (56 km from Morgan Generation Assets) 32 wind turbines, 187 m to tip
  - Gwynt y Môr Offshore (51 km from Morgan Generation Assets) 160 wind turbines, 138 m to tip
  - North Hoyle Offshore (61 km from Morgan Generation Assets) 30 wind turbines, 107 m to tip
  - Rhyl Flats (60.57 km from Morgan Generation Assets) 25 wind turbines, 134 m to tip
- Robin Rigg (73 km from Morgan Generation Assets) 58 wind turbines, 125 m to tip.

B.2 Onshore Wind farms

- Armistead (81 km from Morgan Generation Assets) six wind turbines, 100 m to tip
- Askam (45 km from Morgan Generation Assets) seven wind turbines, 63.5 m to tip
- Caton Moor Repowering (75 km from the Morgan Generation Assets) eight wind turbines, 90 m to tip

- Claughton Moor Community Wind Farm (73 km from the Morgan Generation Assets) 20 wind turbines, 126.5 m to tip
- Deans Lane (75.8 km from the Morgan Generation Assets) one wind turbine, 31.6m to tip
- Dewlay Cheese Wind Turbine (66 km from the Morgan Generation Assets) one wind turbine, 126 m to tip
- Eastman Chemicals, Workington (71.5 km from the Morgan Generation Assets) two wind turbines, 107 m to tip
- Fairfield Farm (63 km from the Morgan Generation Assets) five wind turbines, 99 m to tip
- Fanny House Farm/Heysham Moss (60 km from the Morgan Generation Assets) one wind turbine, 110 m to tip
- Furness/High Winds (Harlock Repowering) (48 km from the Morgan Generation Assets) five wind turbines, 100 m to tip
- Harlock Hill (48 km from the Morgan Generation Assets) five wind turbines, 92.5 m to tip
- Haverigg Extension (38 km from the Morgan Generation Assets) four wind turbines, 100 m to tip
- Haverigg Prison (41 km from the Morgan Generation Assets) five wind turbines, 121 m to tip
- Haverigg Repowering (Haverigg II) (38 km from the Morgan Generation Assets) five wind turbines,62.5 m to tip
- Heysham South (61 km from the Morgan Generation Assets) three wind turbines, 125 m to tip
- HMS Eaglet (81.66 km from the Morgan Generation Assets), one roof mounted wind turbine.
- Kingspan (82.5 km from the Morgan Generation Assets) two wind turbines, 78 m to tip
- Kirkby Moor (51.5 km from the Morgan Generation Assets) 12 wind turbines, 42 m to tip
- Lambrigg (84.5 km from the Morgan Generation Assets) five wind turbines, 75 m to tip
- Lancaster University (66 km from the Morgan Generation Assets) one wind turbine, 125 m to tip
- Land at Flimby Hall Farm (73.5 km from the Morgan Generation Assets) three wind turbines, 102 m to tip
- Langthwaite Farm (41.36 km from the Morgan Generation Assets), one wind turbine.
- Llanbabo (70 km from the Morgan Generation Assets) 34 wind turbines, 100 m to tip (max)
- Lowca (63 km from the Morgan Generation Assets) seven wind turbines, 63.5 m to tip

- Mawdesley Moss (74.5 km from the Morgan Generation Assets) three wind turbines, 80 m to tip
- Nant Bach (80 km from the Morgan Generation Assets) one wind turbine, 100 m to tip
- Oldside (69.5 km from the Morgan Generation Assets) nine wind turbines, 62 m to tip
- Orchard End (60.5 km from the Morgan Generation Assets) two wind turbines, 125 m to tip
- Port of Liverpool (75.5 km from the Morgan Generation Assets) four wind turbines, 125 m to tip
- Potato Pot (66 km from the Morgan Generation Assets) three wind turbines, 100 m to tip (min)
- Promised Land Farm (84 km from the Morgan Generation Assets) two wind turbines, 77.5 m to tip
- Rhyd-y-Groes (62.6 km from the Morgan Generation Assets) 11 wind turbines, 79m to tip
- Royal Seaforth Dock (72.5 km from the Morgan Generation Assets) six wind turbines, 90 m to tip (max)
- Siddick (71.5 km from the Morgan Generation Assets) seven wind turbines, 61 m to tip
- Tallentire Hill (80.5 km from the Morgan Generation Assets) six wind turbines, 42.6 m to tip
- Trysglwyn (64.5 km from the Morgan Generation Assets) 14 wind turbines, 44 m to tip
- Winscales Moor (70 km from the Morgan Generation Assets) seven wind turbines, 81 m to tip
- Winscales Phase I and II (68.5 km from the Morgan Generation Assets) 11 wind turbines, 52 m to tip (max)
- Wythegill Wind Turbine (72 km from the Morgan Generation Assets) one wind turbine, 92.5 m to tip
- Ystgellog Farm (64 km from the Morgan Generation Assets) two wind turbines, 92.5 m to tip.

B.3 Other major offshore development projects

10.14.1.2 Other offshore projects that form part of the baseline, but might have an ongoing impact include:

- Millom West oil and gas platform (2.99 km from the Morgan Generation Assets)
- North Morecambe oil and gas platforms and DPPA (7.6 km from the Morgan Generation Assets)
- OSI (oil and gas offshore storage installation) (33 km from the Morgan Generation Assets)

- South Morecambe oil and gas drilling platforms (DP 1, AP1 at 17.3 km distance to Morgan generation Assets, DP6 at 14.2 km and DP8 at 12.26 km distance to Morgan Generation Assets)
- Calder Platform (17 km from Morgan Generation Assets)
- Conwy Platform (36 km from Morgan Generation Assets)
- Hamilton (47 km from Morgan Generation Assets)
- Hamilton North (39 km from Morgan Generation Assets)
- Douglas oil and gas drilling area, drilling platform and drilling well (DA and DW) (47.2 km from the Morgan Generation Assets)
- Glen Mooan Platform (38 km from Morgan Generation Assets)
- Barrow in Furness Gas Terminal (41.8 km from Morgan Generation Assets)
- Irish Sea offshore wind farms inter-array and export cable repairs and remediation (various distances)
- Routine operational and maintenance activities to turbines of offshore wind farms in the Irish Sea (various distances)
- Irish Sea North Meteorological Mast and geotechnical survey (8.4km from the Morgan Generation Assets).

B.4 Other major onshore development projects

10.14.1.3 Other major onshore projects that form part of the cumulative baseline are not expected to result in significant cumulative effects on landscape, seascape and visual resources.