gwerth mewn gwahaniaeth
delivering on distinction

Morlais Project
Environmental Statement

Chapter 24: Seascape, Landscape and Visual Impact Assessment

Volume I

Applicant: Menter Môn Morlais Limited

Document Reference: PB5034-ES-024

Chapter 24: Seascape, Landscape and Visual Impact Assessment

Author: SLR Consulting Limited

Morlais Document No.:	Status:	Version No:	Date:
MOR/RHDHV/DOC/0054	Final	F3.0	July 2019

TABLE OF CONTENTS

TABLE OF TABLES

TABLE OF FIGURES (VOLUME II)

TABLE OF APPENDICES (VOLUME III)

GLOSSARY OF ABBREVIATIONS

AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
DP	Dynamic Positioning
DSLR	Digital Single Lens Reflex
EIA	Environmental Impact Assessment
ES	Environmental Statement
GPS	Global Positioning System
HDD	Horizontal Directional Drilling
HEPLA	Hermitage Environmental Planning and Landscape Architecture Limited
IoACC	Isle of Anglesey County Council
JLDP	Joint Local Development Plan
KI	Key Issues
LAT	Lowest Astronomical Tide
LCA	Landscape Character Area
MDZ	Morlais Demonstration Zone
NCN	National Cycle Network
NPS	National Policy Statement
NRW	Natural Resources Wales
O&M	Operation and Maintenance
PDE	Project Design Envelope
PPW	Planning Policy Wales
PRoW	Public Rights of Way
SCA	Seascape Character Area
SLA	Special Landscape Area
SLR	SLR Consulting Limited
SLVIA	Seascape, Landscape and Visual Impact Assessment
SM	Scheduled Monument
SoCG	Statement of Common Ground
TAN	Technical Advice Note
TWG	Technical Working Group
ZTV	Zone of Theoretical Visibility

GLOSSARY OF TERMINOLOGY

Characteristics	Elements or combinations of elements which make a contribution to landscape character.
Cloddiau	Vegetated hedge bank.
Horizontal Directional Drilling	A trenchless method of installing underground cables through boring.
Landscape	An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.

Landscape receptors	Aspects of the landscape resource that have to potential to be affected by a proposal.
Open Access Land	Land where the public have access either by legal right or by informal agreement.
Photomontage	A visualisation which superimposes an image of a proposed development upon a photograph.
Scoping	The process of identifying the issues to be addressed by the environmental impact assessment process.
Seascape	An area of sea, coastline and land, as perceived by people, whose character results from the actions and interactions of land with sea, by natural and/or human factors.
Study Area	15 km area from the outer edge of the Morlais Demonstration Zone.
Visually prominent	A tidal device where the large proportion of the support structure is visible above the water to the extent it is visually prominent, together with ancillary elements such as navigation lights, railings and mast.
Visual receptors	Individuals and/or groups of people who have the potential to be affected by a proposal.

24. SEASCAPE, LANDSCAPE AND VISUAL IMPACT ASSESSMENT

24.1. INTRODUCTION

1. This section of the Environmental Statement (ES) provides an assessment of the potential effects on seascape and landscape resources and visual amenity that would be likely to result from the construction, operation and maintenance (O&M) and decommissioning of the offshore and onshore elements of the Morlais Project (the Project). The seascape, landscape and visual impact assessment (SLVIA) has been prepared and reviewed by landscape architects at SLR Consulting Limited (SLR). The work undertaken by SLR follows on from initial SLVIA work done by HEPLA in relation to the Project.

2. The Project is being developed by Menter Môn Morlais Limited (Menter Môn) and will have a tidal generating capacity of up to 240 MW within the Morlais Demonstration Zone (MDZ).

3. The development of the Project will provide a consented tidal technology demonstration zone, specifically designed for the installation and commercial demonstration of multiple arrays of tidal energy devices. The Project will include permanent communal infrastructure for tidal technology developers which provides a shared route to a local grid connection. This proposed onshore infrastructure includes a Landfall Substation at Ty-Mawr (hereafter referred to as Landfall Substation), a Grid Connection Substation at Orthios (hereafter referred to as Grid Connection Substation), and a Switchgear Building at Parc Cybi (hereafter referred to as Switchgear Building).

4. The chapter describes the baseline seascape, landscape and visual context to the Project, including the features and elements within the Offshore Development Area (OfDA) and Onshore Development Area (ODA) and the surrounding Study Area. It identifies the potential effects on seascape, landscape and visual receptors, concentrating on the likely significant effects, which are anticipated to occur within a maximum 15 km distance from the MDZ and has therefore defined the Study Area. It also describes the measures included to prevent, reduce or offset adverse effects (mitigation measures). The assessment has been undertaken using an iterative process, meaning that mitigation measures have been incorporated in the Project and the assessment presents the potential effects of the proposed Project taking account of these measures.

5. The Project will install multiple technology types within the MDZ, and so the consent application is based on a Project Design Envelope (PDE), determined through knowledge of existing technology and the direction of future developments. This approach reflects the emerging nature of tidal energy developments and the potential for the components of the development to change or evolve between the preparation of this assessment and implementation of the Project. The PDE is based on a potential realistic 'worst case' scenario; however, in relation to the SLVIA, the seascape/landscape and visual sensitivity of the local context is recognised and therefore the incorporated mitigation described above has influenced the PDE and set more specific design parameters for the components of the Project, which are described in more detail in **Section 24.6.2** of this chapter. In addition, recognising that the implementation of the Project would take place incrementally, a concise appraisal of a theoretical 40MW array of tidal energy

devices is included in **Appendix 24.5** (**Volume III**). The approach to this appraisal of a 40MW array is explained in the appendix.

6. The SLVIA concentrates on the key seascape, landscape and visual issues identified during the scoping stage and through continued dialogue with Natural Resources Wales (NRW) and The Isle of Anglesey County Council (IoACC), including the County Council's Area of Outstanding Natural Beauty (AONB) service. Consultation undertaken with NRW and IoACC is described in more detail in **Section 24.3** Consultation. Seascape, landscape and visual effects are defined as follows:

- Seascape/landscape effects – both physical changes to constituent elements of the seascape/landscape fabric, and how changes in the character and qualities of the seascape/landscape and designated areas are perceived by people, as a result of the Project; and
- Visual effects – changes to views or visual amenity, as experienced by people, from key viewpoints, the surrounding sea, settlements, roads, footpaths and cycle routes, as a result of the Project.

7. The location of the Project and the extent of their respective application boundaries are shown in **Figure 1-1 and 1-2** (**Volume II**). This is also detailed in **Chapter 4, Project Description**.

24.1.1. SLVIA Contents

8. This SLVIA is organised into the following main sections, with additional written data also included in appendices, as described below:

- Introduction;
- Project Description;
  - A description of the aspects of the Project with the potential to influence seascape/landscape and visual amenity within the Study Area;
- Design Optimisation and Mitigation Measures;
  - A description of how the PDE has evolved in response to potential seascape, landscape and visual effects identified during pre-application part of the Environmental Impact Assessment (EIA) process, and a description of mitigation measures incorporated at the design stage, aimed at reducing or minimising potentially adverse seascape/landscape and visual effects;
- Policy and Legislation;
  - A review of policy context relevant to seascape, landscape and visual matters;
- Consultation;
  - A summary of the consultation completed to agree the scope of the assessment;
- Methodology;
  - An explanation of how the SLVIA has been carried out, with reference to recommended methodologies and guidelines;

- Existing Environment;
    - A description of the existing seascape, landscape and visual amenity and receptors identified within the Study Area;
- Impact Assessment;
    - Assessment of effects during the construction phase;
        - An assessment of the likely effects arising during the construction phase of the Project;
    - Assessment of residual seascape, landscape and visual effects during the O&M phase;
        - A detailed assessment of the residual effects arising from the operation of the Project on the seascape and landscape resources and the perception of seascape/landscape character and designated areas within the Study Area;
        - An assessment of residual effects on visual amenity arising from the operation of the Project, including an assessment from a range of viewpoints identified and agreed through consultation with NRW, IoACC and the AONB service;
    - Assessment of cumulative and in-combination landscape and visual effects;
        - An assessment of the potential effects arising from the operation of the Project in conjunction with other relevant proposed developments within the Study Area;
    - Assessment of effects during the decommissioning phase;
        - An assessment of the likely effects arising during the decommissioning phase; and
- Summary
    - A summary of the key seascape, landscape and visual effects arising from the Project, and conclusion on the significance of effects.

24.1.2. Supporting Graphics and Appendices

9. The SLVIA is supported by several appendices. These contain detailed information about the approach to the assessment and specific elements that have been considered in detail. The SLVIA chapter should be read alongside the plans, photographs and visualisations, included in **Volume II**, and night time photomontages in **Appendix 24.4**, **Volume III**.

24.1.2.1. SLVIA Figures for the Offshore Development

10. The baseline seascape, landscape and visual context is illustrated in: **Figure 24-1-1a** (**Volume II**), SLVIA Study Area; **Figure 24-1-2a** (**Volume II**), Seascape/Landscape Designations; **Figure 24-1-2b** (**Volume II**), Walking/Cycling Routes; and **Figure 24-1-3** (**Volume II**), Seascape/Landscape Character Areas. Viewpoint locations are shown in **Figures 24-1-4 and 24-1-4a to d** (**Volume II**).

11. The assessment of seascape, landscape and visual effects is supported by the Zone of Theoretical Visibility (ZTV) maps in **Figures 24-2-1** to **24-2-2** (**Volume II**), viewpoint

photographs and wireframes in **Figures 24-3-1 to 24-3-20** (**Volume II**) and photomontages in **Figures 24-4-1 to 24-4-3 (Volume II)**. Night time photomontages are included in **Appendix 24.4** (**Volume III**).

12. The wireframes and photomontages that have been prepared as part of the SLIVA show the appearance of the full deployment of tidal energy devices included in the 240MW scenario that form the Project Design Envelope (PDE) for the SLVIA. The PDE is described in **Section 24.6.2**.

24.1.2.2. SLVIA Figures for the Onshore Development

13. The baseline seascape, landscape and visual context is illustrated in: **Figure 24-1-1** (**Volume II**), SLVIA Study Area; **Figure 24-1-2a** (**Volume II**), Seascape/Landscape Designations, **Figure 24-1-2b** (**Volume II**) Long Distance Walking Routes and Cycle Routes; and **Figure 24-1-3** (**Volume II**), Seascape/Landscape Character Areas. Viewpoint locations are shown in **Figure 24-1-4, Figure 24-1-4e and Figure 24-1-4f** (**Volume II**).

14. The assessment of seascape/landscape and visual effects is supported by the ZTV maps in **Figures 24-2-3 to 24-2-5** (**Volume II**), viewpoint photographs and wireframes in **Figures 24-3-21 to 24-3-31** (**Volume II**), and photomontage in **Figures 24-4-4** (**Volume II**).

24.1.2.3. Appendices

15. This chapter is accompanied by **Appendices 24.1 to 24.5** in **Volume III**. These provide greater detail and background information on:

- **Appendix 24.1** Method used in Assessing Seascape, Landscape and Visual Effects: provides a detailed explanation of the approach to the assessment and how judgements have been made;
- **Appendix 24.2** Seascape and Landscape Character Areas within the 15 km Study Area: contains baseline information regarding the Study Area from relevant character assessments published by Natural Resources Wales and Isle of Anglesey Council;
- **Appendix 24.3** Viewpoint Assessment: contains the detailed assessment of all viewpoints included in the SLVIA.
- **Appendix 24.4** Night Time Photomontages: contains night time photomontages for selected viewpoints; and
- **Appendix 24.5** Appraisal of 40MW Array: contains a concise appraisal of an initial deployment of tidal energy devices within the MDZ.

24.2. POLICY AND LEGISLATION

16. Planning policies and guidance are covered in detail in **Chapter 2, Policy and Legislation**. The policies, legislation and guidance relevant to the SLVIA are set out below, **Figure 24-1-2a,** (**Volume II**), identifies the location and extent of the landscape policy designations. At present the application for the Project, with regard to landscape and visual matters, would be considered under national, regional and local policy, as reviewed below.

24.2.1. Key Designations

There are several designations within the Study Area that have relevance to the SLVIA, including:

- The Isle of Anglesey AONB;
- Sections of Heritage Coast;
- One Special Landscape Area (SLA);
- One Registered Park and Garden; and
- Conservation Areas.

24.2.1.1. Isle of Anglesey AONB

17. The Isle of Anglesey AONB was designated in 1996 and covers an area of approximately 221 km^2 (approximately one third of the island). It is almost continuous around the coastline, with only occasional breaks including Holyhead and Trearddur Bay. The AONB is predominantly a coastal designation, but also encompasses Holyhead Mountain (220 m Above Ordnance Datum (AOD)) and Mynydd Bodafon. Further areas of other land protected by the AONB designation form the backdrop to the coast. The AONB is characterised by sea cliffs/coastal edge and islands. Inland it is primarily a working landscape, with agriculture being the predominant land use. Tourism is a key employer on the island, with people attracted to the beaches and coastal landscape. The AONB also includes areas that are designated at a national and international level for their ecological value. The land is mainly managed by farmers, however there are also areas managed by other organisations including NRW, the Wildlife Trust and The National Trust. The primary objective of the AONB designation is the protection and preservation of landscape character, quality and features from inappropriate development. The location and extent of the AONB in relation to the Project is shown in **Figure 24-1-2a** (**Volume II**).

18. The Isle of Anglesey AONB Management Plan Review 2015-2020 (Isle of Anglesey AONB and NRW) sets out the vision and strategy for the AONB, as well as highlighting its sensitivities and special qualities for which it has been designated. This document identifies the objectives relating to energy development on the Isle of Anglesey, also noting the potential influence this could have on the AONB. This Management Plan is reviewed in more detail as part of the policy context set out below (**Section 24.2.4**), including the special qualities of the AONB.

24.2.1.2. Heritage Coast

19. Heritage Coasts are special coastlines that are managed so that their natural beauty is conserved and, where appropriate, the accessibility for visitors is improved. Heritage Coasts are a non-statutory landscape definition and are defined by agreement between the relevant local authorities and government agencies. Most Heritage Coasts are associated with areas that form part of a National Park or AONB (as is the case with the Isle of Anglesey).

20. There are three sections of the Anglesey coastline that are designated as Heritage Coast, two of which lie within the Study Area. These comprise the north west coast of Holy Island (the

closest coastline to the MDZ) and the north west part of mainland Anglesey, between Swtan and Wylfa Head. Both these sections of Heritage Coast are also designated as AONB. As set out in Planning Policy Wales Edition 10 (Welsh Government, December 2018), the overall aim of this designation is to preserve the character of the coastline. Part of the reason for the Heritage Coast designation is to protect the undeveloped character of these locations. The designation of this section of coast as Heritage Coast reinforces the AONB and reflects the special qualities of this landscape. The location and extent of the sections of Heritage Coast in relation the Project are shown in **Figure 24-1-2a**, (**Volume II**).

24.2.1.3. Special Landscape Areas

21. In December 2012 the Anglesey and Gwynedd Joint Planning Policy Unit published the Review of Special Landscape Areas in Gwynedd and Anglesey. This document reviewed the existing local landscape designations, Special Landscape Areas (SLAs), as part of their Joint Local Development Plan preparation. Planning Policy Wales (2012) sets out that SLAs are applied by local planning authorities where there is good reason to believe that normal planning policies cannot provide the necessary protection.

22. Six SLAs were identified within Anglesey and of these only one SLA lies within the Study Area, the Mynydd Mechell SLA. This SLA lies in the north western part of mainland Anglesey, approximately 4.5 km from the western coast and 3 km from the northern coast. It comprises a distinctive pattern of dispersed rural properties set within a small scale field pattern and craggy, strongly undulating landform. Although relatively low lying it possesses an upland quality and contrasts with the smoothly rolling drumlin landscape that surrounds the SLA. The location and extent of the Mynydd Mechell SLA in relation the Project is shown in **Figure 24-1-2a** (**Volume II**).

24.2.1.4. Register of Historic Landscapes

23. The Register of Historic Landscapes/Historic Parks and Gardens in Wales has been consulted during the preparation of this assessment. This has identified that there are no Landscapes of Special or Outstanding Historic Interest within the Study Area. However, one Registered Park and Garden lies within the Study Area, Carreglwyd, positioned towards the north western edge of the Isle of Anglesey. It lies to the north west of Llanfaethlu and is approximately 1 km from the coastline. The location of Carreglwyd is shown in **Figure 24-1-2a** (**Volume II**).

24. Careglwyd is a largely eighteenth century mansion with earlier origins. There is good survival of the grounds, which mainly comprise a nineteenth-century layout of ornamental wooded grounds focused on an informal lake, incorporating earlier elements. The park and garden also includes woodlands, which were planted for practical and aesthetic reasons.

24.2.1.5. Conservation Areas

25. There are four Conservation Areas within the Study Area, including Holyhead Mountain, Holyhead Beach Holyhead Central and Bodedern.

24.2.2. National Planning Policy

24.2.2.1. Planning Policy Wales

26. Relevant national planning policy context is set out in Planning Policy Wales (PPW), Edition 10 (Welsh Government, December 2018). Figure 3, Key Planning Principles of PPW sets out that the planning system should protect natural, historic and cultural assets and negative environmental impacts impact should be avoided in the wider public interest. Chapter 6; Distinctive and Natural Places, of PPW, includes a strong emphasis on the landscape of Wales and its characteristics.

27. PPW identifies that the landscapes of Wales are rich and varied, highlighting that the character and special qualities of urban and rural landscape can make contributions to sense of place, inspiration and belonging, as well as to the distinctive cultural identity of Wales. Particular emphasis is made in relation to the protection of nationally designated landscapes, including National Parks and AONBs, identifying (in paragraph 6.3.8 of PPW) that these designations *"must both be afforded the highest status of protection from inappropriate developments"*.

28. PPW also identifies the importance of local landscapes and how, where appropriate, local authorities should make provision for their conservation and enhancement. Also of direct relevance to the SLVIA are references to designated or protected sites on the coast. Paragraph 6.5.12 of PPW states *"Development proposals should aim to protect or enhance the natural or historic character and landscape of undeveloped coastlines. The particular landscapes of the coastline should be recognised and protected where they represent significant characteristics of place. Designation as a heritage coast does not directly affect the status of the area in planning terms, however, the features which contributed to the designation of such areas will be important considerations in development plans and in making development management decisions.*"

29. Chapter 3; Strategic and Spatial Choices of PPW highlights the importance of good design for new developments, identifying that landscape and green infrastructure considerations are an integral part this process. It also sets out that the *"special characteristics of an area should be central to the design of a development"*, with an emphasis placed on the *"layout, form, scale and visual appearance of a proposed development and its relationship to its surroundings"*. The importance of areas that are recognised for their landscape, townscape, cultural or historic character and value is also identified, noting the particular importance of design considerations in such locations.

30. Chapter 5; Productive and Enterprising Places, of PPW includes energy, and specifically renewable and low carbon energy. This sets out the importance of the Welsh Government's targets to increase renewable and low carbon energy generation. Paragraph 5.9.17 of PPW states that "*in circumstances where protected landscape, biodiversity and historical designations and buildings are considered in the decision making process, only the direct irreversible impacts on statutorily protected sites and buildings and their settings (where appropriate) should be considered*".

31. Relevant National planning guidance is also provided in Planning Policy Technical Advice Notes (TANs). TAN12: Design (Welsh Government, March 2016) places importance on the appreciation of context and how a development should respond to this, including local character. TAN12 also place an emphasis on landscape design and the contribution this can make to a proposed development. TAN8: Planning for Renewable Energy (Welsh Assembly Government, July 2005) does not provide any guidance that specifically relates to tidal energy development. TAN8 also provides little specific policy or guidance in relation to landscape and visual issues, although there is general recognition of the need for landscape protection.

24.2.2.2. National Policy Statements

32. The Project is seeking consent for a Transport and Works Act Order from the Welsh Ministers and a Marine Licence from Natural Resources Wales (NRW). Although this Project is not seeking a Development Consent Order (DCO), its size (240 MW) means it is representative of a Nationally Significant Infrastructure Project (NSIP), therefore guidance relevant to NSIPs is considered appropriate to use for this Project. Guidance that is relevant to assessing impacts on SLVIA for NSIPs are set out within National Policy Statements (NPSs) which are the principal decision-making documents for NSIPs.

33. At a national level, policy is set out in the National Policy Statements (NPS) for energy infrastructure. The NPSs that are relevant to the Project include; EN-1 – Overarching National Policy Statement for Energy (Department of Energy and Climate Change, July 2011), and EN-3 – National Policy Statement for Renewable Energy Infrastructure (Department of Energy and Climate Change, July 2011). While the focus of the NPSs relates to applications for energy infrastructure that falls under the Planning Act 2008, EN-1 also states (paragraph 1.2.1 of EN-1) that "*In England and Wales this NPS is likely to be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended)*". It is also likely that this policy is applicable to the consenting route that has been adopted for the Project.

34. EN-1 Overarching Energy NPS makes numerous references to landscape and visual impacts. It identifies that the development of new energy infrastructure is likely to have some negative impacts on landscape and visual amenity and cultural heritage. It also states that *"in general, it should be possible to mitigate satisfactorily the most significant potential negative effects"*, also reflecting that *"the impacts on landscape/visual amenity in particular will sometimes be hard to mitigate"*. In paragraph 1.7.11 it reinforces this, stating that *"the principal area in which consenting new energy infrastructure...is likely to lead to adverse effects which cannot always be satisfactorily mitigated is in respect of landscape and visual effects"*. It goes on to outline that potential for such development in the most attractive landscapes and townscapes is already severely limited and further restriction would make consents much harder to gain.

35. Section 5.9 (Landscape and Visual) of EN-1, provides general advice on the assessment of impacts as well as providing general advice in relation to mitigation of potential impacts through siting, layout, design and landscaping schemes.

36. Section 5.8 (Historic Environment) and 5.10 (Land Use Including Open Space, Green Infrastructure and Green Belts) of EN-1 are also relevant to this assessment. These aspects

are also covered by other assessments, but there is some overlap where relevant designations e.g. Conservation Areas and Registered Parks and Gardens can be reflective of landscape or townscape character and the associated policies protect certain characteristics of such designations.

37. EN-3 NPS for Renewable Energy Infrastructure reiterates some aspects covered by EN-1 e.g. good design. There is no specific guidance that relates to tidal energy developments. However, Section 2.6 (Offshore Wind) of EN-3 contains some relevant guidance on the assessment of potential seascape and visual effects.

38. The above considerations are an integral part of this SLVIA and the method used. The NPSs also provide some explanation of the key considerations that should be applied to decisions for proposed developments, including projects within and outside nationally designated landscape and also considering potential visual impacts.

39. Details of specific policies within EN-1 and EN-3 used to inform this assessment are provided in **Table 24-1** below. The specific assessment requirements for SLVIA are detailed, together with an indication of the paragraph numbers of the chapter where each is addressed.

Table 24-1 NPS EN-1 and EN-3 Assessment Requirements Relevant to SLVIA

NPS Requirement	NPS Reference	ES Reference
An emphasis on good design is placed. It reflects that high quality design goes beyond aesthetic considerations, but still places importance on the appearance of proposed developments. It also sets out that there may be opportunities to "demonstrate good design in terms of siting relative to landscape character, landform and vegetation".	EN-1 Section 4.5	**Section 24.6.2** sets out the design optimisation and embedded mitigation measures of the project.
The applicant should carry out a landscape and visual assessment and report it in the ES…The landscape 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 applicants assessment should also take account of any relevant policies based on these assessments in…local development plans in Wales	EN-1 Paragraph 5.9.5	**Sections 24.4.6** and 24.4.7 set out the data sources used for this assessment. **Section 24.2** outlines the policy and legislation relevant to this assessment.
The applicant's assessment should include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character	EN-1 Paragraph 5.9.6	**Sections 24.6.4** and **24.6.5** set out the potential impacts that have been assessed within this chapter for both construction and operation respectively.
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	EN-1 Paragraph 5.9.7	As above.

NPS Requirement	NPS Reference	ES Reference
An emphasis is placed on the protection that is afforded to national landscape designations (including AONBs), confirming the policy set out in PPW; that *"National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty"*. It also establishes that conservation of the natural beauty of the landscape and countryside should be given substantial weight in decisions for development in such areas.	EN-1 Paragraph 5.9.9	**Section 24.6.5.3** details the assessment of effects on landscape designations and **Section 24.6.5.2** sets out the assessment of effects on seascape and landscape character.
Where proposed development will affect the setting of a heritage asset, representative visualisations may be necessary to explain the impact.	EN-1 Section 5.9.8	**Sections 24.5.2.3**, **24.5.2.4** and **24.5.2.15** outlines the baseline archaeological features which have been assessed within this chapter (**Section 24.6.5**).
There is a requirement to protect open space and green infrastructure, reflecting on the contribution such assets make to local communities.	EN-1 Section 5.10	**Section 24.5.3** and **24.5.2.12** set out the seascape and landscape designations and the overall character which has been assessed within this chapter (**Section 24.6.5**).
It sets out that an appropriate seascape and visual assessment should be carried out, based on recognised methodologies.	EN-3 Section 2.6	The methodology follows good-practice guidance and advice, key sources of guidance are detailed in **Section 24.4.1** and **Appendix 24.1 (Volume III)**.

24.2.2.3. The Well Being of Future Generations (Wales) Act 2015

40. The Well Being of Future Generations (Wales) Act 2015 does not specifically relate to seascape, landscape and visual amenity. However, it does relate clearly to environmental, social, economic and cultural themes. It places the importance of sustainable development at the centre of the goals set out by this Act. Therefore, it forms part of the considerations for balancing the predicted effects of the Project identified in the SLVIA against the positive contributions it would make to both the local community and wider region and country.

24.2.3. Local Planning Policy

24.2.3.1. Anglesey and Gwynedd Joint Local Development Plan 2011 – 2026

41. The current planning policy framework for Anglesey is set out in the Anglesey and Gwynedd Joint Local Development Plan 2011 – 2026 (adopted 31st July 2017). The Joint Local Development Plan (JLDP) sets out a number of "Key Issues" (KI), with KI 34 and 35 having direct relevance to this assessment. KI 34 identifies the need to *"maintain the positive features that contribute towards creating a unique character in various parts of the area"*. KI 35 states the need to protect and improve place, landscape and buildings of historic, cultural and archaeological importance and their setting.

42. The JLDP also sets out a clear vision for the Plan area. This includes reference to the need to value, protect and enhance the unique character of the built and cultural heritage, its countryside and landscape and its environment.

43. Theme 5: Protect and Enhance the Natural and Built Environment includes, within Strategic Objective 17, an outline of the need to protect, enhance and manage the natural and heritage assets of the Plan area, including landscape character. Similar principles are reinforced in Strategic Policy PS 5: Sustainable Development, which sets out (amongst numerous other criteria) that development proposals should "*protect and improve the quality of the natural environment*", including its landscapes.

44. The JLDP also includes a number of specific landscape policies that are relevant to the SLVIA.

45. Policy PCYFF 3: Design and Place Shaping sets out that all proposals will be expected to demonstrate high quality design, including taking account of the natural, built and environmental context.

46. Policy PCYFF 4: Design and Landscaping has particular relevance to the SLVIA. It states that: *"All proposals should integrate into their surroundings. Proposals that fail to show (in a manner appropriate to the nature, scale and location of the proposed development) how landscaping has been considered from the outset as part of the design proposal will be refused. A landscape scheme should, where relevant:*

1. *Demonstrate how the proposed development has given due consideration to the Landscape Character Area Assessment or Seascape Character Area Assessment;*
2. *Demonstrate how the proposed development respects the natural contours of the landscape;*
3. *Demonstrate how the proposed development respects and protects local and strategic views;*
4. *Respect, retain and complement any existing positive natural features, landscapes, or other features on site;*
5. *Identify trees, hedgerows, water courses and topographical features to be retained;*
6. *Provide justification for circumstances where the removal/loss of existing trees, hedgerows, water courses and topographical features cannot be avoided and provides details of replacements;*
7. *Provide details of any proposed new landscaping together with a phased programme of planting;*
8. *Demonstrate that any proposed new planting includes plants and trees of mainly native species of local provenance and does not include any non-native invasive species;*
9. *Ensure that selection of species and planting position of any trees allows for them to grow to their mature height without detriment to nearby buildings, services and other planting; and*
10. *Provide permeable hard surface landscaping."*

47. Strategic Policy PS 9: Renewable Energy Technology seeks to promote such initiatives, but also recognises the need to consider potential landscape and visual impacts, overlapping with the objectives of Strategic Policy PS 19 (set out below). With specific relevance to this assessment, it places an emphasis on designated landscapes and the amenity of residential and holiday accommodation.

48. Policy ADN 3: Other Renewable Energy and Low Carbon Technologies identifies that such proposals will be permitted providing impacts, including those on designated landscapes, can be adequately mitigated and where the proposal does not have a significant unacceptable effect on visual amenities. It also highlights that, *"where necessary, proposals should be informed by the landscape and visual impact assessment"*.

49. Strategic Policy PS 14: The Visitor Economy includes a specific criterion associated with preventing development that is considered to have an unacceptable adverse impact on tourist facilities, including accommodation and areas of visitor interest (or their setting).

50. Chapter 6 of the JLDP relates directly to the natural and built environment. There are several policies within Chapter 6 of the JLDP that are of particular relevance to this SLVIA. Strategic Policy PS 19: Conserving and Where Appropriate Enhancing the Natural Environment states that *"The Councils will manage development so as to conserve and where appropriate enhance the Plan area's distinctive natural environment, countryside and coastline, and proposals that have a significant adverse effect on them will be refused unless the need for and benefits of the development in that location clearly outweighs the value of the site or area and national policy protection for that site and area in question. When determining a planning application, consideration will need to be given to the following:*

1. *Safeguard the Plan area's habitats and species, geology, history, the coastline and landscapes;*

2. *Protect or where appropriate enhance sites of international, national, regional and local importance and, where appropriate, their settings in line with National Policy;*

3. *Have appropriate regard to the relative significance of international, national or local designations in considering the weight to be attached to acknowledged interests, ensuring that any international or national responsibilities and obligations are fully met in accordance with National Policy;*

4. *Protect or enhance biodiversity within the Plan area and enhance and/or restore networks of natural habitats in accordance with the Local Biodiversity Action Plans and Policy AMG 5;*

5. *Protect or enhance biodiversity through networks of green/ blue infrastructure;*

6. *Safeguard internationally, nationally and locally protected species;*

7. *Protect, retain or enhance the local character and distinctiveness of the individual Landscape Character Areas (in line with Policy AMG 2) and Seascape Character Areas (in line with Policy AMG 4);*

8. *Protect, retain or enhance trees, hedgerows or woodland of visual, ecological, historic cultural or amenity value."*

51. In cognisance of Chapter 5 of PPW, the IoACC includes a summary within **Policy PS 19** of relevant designations, including landscape designations, and sets out its obligation in respect of each type of designation. The following extract refers to AONB designations which are relevant to the Proposed Development:

52. *"The primary objective for designating AONBs is to conserve and enhance the natural beauty of the landscape. It is crucial that any development schemes that affect the AONB or its setting favours the safeguarding of an area's natural beauty.*

Proposals for major development would have to satisfy 3 tests, which are:

- *The need for the development, in terms of national considerations, and the impact of permitting it or refusing it upon the local economy;*
- *The cost of and scope for providing the development outside the designated area or meeting the need for it in some other way;*
- *Any detrimental effect on the environment and the landscape, and the extent to which that could be moderated."*

53. Policy AMG1: AONB Management Plans states further that: *"Proposals within or affecting the setting and/ or significant views into and out of the Areas of Outstanding Natural Beauty must, where appropriate, have regard to the relevant AONB Management Plan."*

54. The relevant extracts from the Anglesey AONB Management Plan are reviewed below.

55. Policy AMG 2: Special Landscape Areas protects locally designated landscapes. Whilst the Proposed Development will not be located within a Special Landscape Area cognisance will be given to Policy AMG2 which states that: "*When considering a proposal within Special Landscape Areas (SLA), as identified by the Proposals Map…there will be a need to* [give] *appropriate consideration to the scale and nature of the development ensuring that there is no significant adverse detrimental impact on the landscape."*

56. Policy AMG 3: Protecting and Enhancing Features and Qualities That Are Distinctive to The Local Landscape Character sets out specific criteria that are applicable to sites and their local context. Particular consideration has been given to the design of the onshore infrastructure associated with the Proposed Development in respect of the requirements of Policy AMG 3 which states that: *"A proposal will be granted provided it doesn't have significant adverse impact upon features and qualities which are unique to the local landscape in terms of visual, historic, geological, ecological or cultural aspects. Measures should be taken to ensure that the development does not:*

1. Cause significant adverse impact to the character of the built or natural landscape;

2. Fail to harmonise with, or enhance the landform and landscape;

3. Lose or fails to incorporate traditional features, patterns, structures and layout of settlements and landscape of both the built and natural environment.

Particular emphasis will be given to the landscapes identified by the Landscape Character Areas as being of high and outstanding quality because of a certain landscape quality or a combination of qualities. Additional consideration will also be given to development [s] *that directly affect the landscape character and setting of the AONBs or the National Park."*

57. Policy AMG 4: Coastal Protection is directly relevant to areas designated as Heritage Coast setting out that *"In considering a proposal on the coast, including the Heritage Coast, there will be a need to ensure that the proposal conforms to the following criteria:*

1. The development due to its nature must be located on the coast, or in open estuaries, or nearby, and that there is an overriding economic and social benefit from the development

2. It does not cause unacceptable harm to:

i. Water quality

ii. Public access considerations

iii. The built environment, or the landscape, or seascape character

iv. The area's biodiversity interests (including European Protected Areas such as marine Special Areas of Conservation and Special Protected Areas) due to their location, scale, form, appearance, materials, noise, or emissions or due to an unacceptable increase in traffic.

3. Priority is given to locations with a close visual connection to current buildings or existing structures.

4. There are no suitable alternative locations on the coast that have been developed.

5. That the development is consistent with other policies within the Plan including Policy ARNA1."

24.2.4. Isle of Anglesey AONB Management Plan Review 2015 – 2020

58. The Isle of Anglesey AONB Management Plan Review 2015 – 2020 also includes a number of Management Objectives and associated policies. The following text sets out those that are directly relevant to the Proposed Development and landscape/seascape character within the Study Area. These all relate to the overall aim for enhancing countryside and coastal character; *"the natural beauty, special qualities and distinctiveness of the landscape of the Isle of Anglesey AONB, including its natural, cultural and historical features, will be conserved and enhanced for the benefit of present and future generations"*.

Management Objective 1: Landscape/Seascape

- *The coastal landscape/seascape will be actively conserved through appropriate management.*

Policies

CCC 1.1 LANDMAP is used as the process by which the landscape character of the AONB is valued and assessed.

CCC 1.2 The Anglesey Seascape Character Assessment is used to help determine the likely impacts of marine developments on the special qualities and features of the AONB.

CCC 1.3 There is a need to maintain the accessibility and conservation interest of sites of geological and geomorphological importance.

CCC 1.4 Elements of the landscape that have been degraded and lost their character will be restored and enhanced to safeguard the quality of the landscape.

Management Objective 2: Historic Landscape and Culture

- *Historic, archaeological and cultural sites are important features of the Isle of Anglesey AONB. Strong planning policies will protect such sites from development that degrades the special qualities of the AONB.*

Policies

CCC 2.1 Identify, protect and actively conserve the historic, archaeological and cultural resources of the AONB with relevant agencies.

CCC 2.2 Support the use of traditional skills and practices during restoration of the AONB's special qualities.

CCC 2.3 Ensure that high quality, co-ordinated and consistent interpretation material is provided to inform people about the rich history of the AONB.

Management Objective 3: Development

- *Planning Policies will ensure that all development within and adjacent to the boundary of the AONB is compatible with the aims and objectives of the designation and that new developments enhance local character.*

Policies

CCC 3.1 All development proposals within and up to 2 km adjacent to the AONB will be rigorously assessed to minimise inappropriate development which might damage the special qualities and features of the AONB or the integrity of European designated sites.

CCC 3.2 All new developments and re-developments within and up to 2 km adjacent to the AONB will be expected to adopt the highest standard of design, materials and landscaping in

order to enhance the special qualities and features of the AONB. Proposals of an appropriate scale and nature, embodying the principles of sustainable development, will be supported.

CCC 3.3 Ensure that planning policies reflect the statutory duty of the Council to conserve and enhance the special qualities and features of the AONB.

CCC 3.4 Continue to encourage the under grounding of existing and proposed power and telephone lines.

CCC 3.5 Continue to encourage the highest standards of equipment design for telecommunication masts to minimise their visual impact on the special qualities and features of the AONB.

Management Objective 4: Peace and Tranquillity

- Unspoilt panoramic views and tranquil atmosphere are safeguarded from improvement that would degrade the special quality of the AONB.

Policies

CCC 4.1 Work to maintain the solitude and natural beauty of the AONB.

CCC 4.2 Work towards securing Dark Skies status for Anglesey.

CCC 4.3 Ensure noise intrusion into the AONB is within acceptable limits."

59. In addition to the above, the Management Plan recognises the focus on Anglesey becoming an Energy development island, with this relating to both nuclear and renewable energy. The Energy Island Programme is a partnership between public and private sector organisations. Through this programme it is intended to put Anglesey at the forefront of energy related technology developments with the potential associated economic benefits. It sets out that renewable energy may include offshore wind farms, marine turbines and solar farms. At the same time the Management Plan recognises the potential for these to influence the landscape and seascape of the AONB, resulting from the potential proximity of such development and the need to bring the power that is generated ashore.

60. The AONB Management Plan also sets out the features and special qualities of the AONB. The features of the Anglesey AONB are defined as:

- Coastal landscape/seascape features;
- Traditional agricultural landscape features; and
- Geological and geomorphological features.

61. The special qualities of the Anglesey AONB are identified as comprising the following:

- Expansive views/seascapes;
- Peace and tranquillity;
- Islands around Anglesey;

- Broadleaved woodlands;
- Lowland coastal heath;
- Species rich roadside verges;
- Ecologically important coastal and wetland habitats (including rocky shores, mudflats and estuaries, saltmarshes, beaches and dunes);
- Built environment including conservation areas and listed buildings;
- Archaeology and ancient monuments/ historic landscapes, parks and gardens;
- Rural agricultural/coastal communities;
- Welsh language;
- Soil, air and water quality;
- Public rights of way network; and
- Accessible land and water.

24.2.5. Summary

62. **Table 24-2** summarises the national and regional policy of relevance to SLVIA.

Table 24-2 National and Regional Policy Requirements Relevant to SLVIA

Policy Description	Reference	ES Reference
MPS		
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 and the adjacent marine environment with cultural, historical and archaeological links with each other.	2.6.5.1	The potential seascape, landscape and visual effects associated with all land-based components of the Project are assessed throughout **Section 24.6.**
Draft WNMP		
Designated landscapes Proposals that demonstrate that they are compatible with the purposes and special qualities for which National Parks or Areas of Outstanding Natural Beauty have been designated are encouraged.	SOC_06	Impacts to Anglesey AONB are considered throughout the impact assessment (**Section 24.6**)
Seascapes Proposals should demonstrate how potential impacts on seascapes have been taken into consideration at an early stage and should, in order of preference: a) avoid adverse impacts on seascapes; and/or b) minimise impacts where they cannot be avoided; and/or c) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be adequately addressed, proposals should present a clear and convincing	SOC_07	The SLVIA considers offshore effects associated with offshore tidal energy devices. This has comprised the analysis of numerous viewpoints along the coastline,

Policy Description	Reference	ES Reference
justification for proceeding. Opportunities to enhance seascapes are encouraged.		including elevated locations. (**Section 24.6.4** and **24.6.5**)
Cumulative effects Proposals should demonstrate that they have assessed potential cumulative effects and, in order of preference: a) avoid adverse effects; and/or b) minimise effects where they cannot be avoided; and/or c) mitigate effects where they cannot be minimised. If significant adverse effects cannot be adequately addressed, proposals should present a clear and convincing justification for proceeding. Proposals that contribute to positive cumulative effects are encouraged.	GOV_01	Cumulative impacts are considered in **Section 24.6.7** and within **Chapter 26, Cumulative and In-combination**
Planning Policy Wales		
All the landscapes of Wales are valued for their intrinsic contribution to a sense of place, and local authorities should protect and enhance their special characteristics, whilst paying due regard to the social, economic, environmental and cultural benefits they provide, and to their role in creating valued places.	6.3.3	The sensitivity of seascapes and landscapes are discussed within **Section 24.5.2**.
The statutory landscape designations that apply in Wales are National Parks, and AONBs. Planning authorities have a statutory duty to have regard to National Parks and AONB purposes.	6.3.5	Impacts to Anglesey AONB are considered throughout the impact assessment (**Section 24.6**)
In National Parks, planning authorities should give great weight to the statutory purposes of National Parks, which are to conserve and enhance their natural beauty, wildlife and cultural heritage, and to promote opportunities for public understanding and enjoyment of their special qualities. Planning authorities should also seek to foster the social, economic and cultural well-being of their local communities.	6.3.6	As above
In National Parks or AONBs, special considerations apply to major development proposals which are more national than local in character. Major developments should not take place in National Parks or AONBs except in exceptional circumstances. This may arise where, after rigorous examination, there is demonstrated to be an overriding public need, refusal would be severely detrimental to the local economy and there is no potential for locating the development elsewhere or meeting the need in some other way. Any construction and restoration must be carried out to high environmental standards. Consideration of applications for major developments should therefore include an assessment of: • the need for the development, in terms of national considerations and the impact of permitting it or refusing it upon the local economy; • the cost of and scope for providing the development outside the designated area or meeting the need for it in some other way; and	6.3.10	As above

Policy Description	Reference	ES Reference
• any detrimental effect on the environment and the landscape, and the extent to which that could be moderated and/or mitigated.		
Planning authorities should protect the features and utilities for which Geoparks and RIGS have been designated, and are encouraged to promote opportunities for the incorporation of geological features within the design of development, particularly where relevant evidence is provided by Green Infrastructure Assessments.	6.3.15	The geology of landscape features is considered in **Section 24.5.2.1**and **24.5.2.2**. Impacts to designated sites for geology are assessed in **Chapter 18, Ground Conditions and Contamination**.
Anglesey and Gwynedd Joint Local Development Plan (JLDP)		
All proposals will be expected to demonstrate high quality design which fully takes into account the natural, historic and built environmental context and contributes to the creation of attractive, sustainable places. Innovative and energy efficient design will be particularly encouraged.	Policy PCYFF 3: Design and Place Shaping	Embedded mitigation measures are discussed in **Section 24.6.2.**
All proposals should integrate into their surroundings. Proposals that fail to show (in a manner appropriate to the nature, scale and location of the proposed development) how landscaping has been considered from the outset as part of the design proposal will be refused.	Policy PCYFF 4: Design and Landscaping	As above.
1. All impacts on landscape character, heritage assets and natural resources have been adequately mitigated, ensuring that the special qualities of all locally, nationally and internationally important landscape, biodiversity and heritage designations, including, where appropriate, their settings are conserved or enhanced; 2. That the proposal does not have a significant unacceptable effect on visual amenities; 3. That the proposal is mitigated to ensure that there aren't any significant unacceptable effects on sensitive uses located nearby; 6. That the development does not have cumulative unacceptable effect with any prominent features in the landscape or townscape;	Policy ADN 3: Other Renewable Energy and Low Carbon Technologies	As above
Whilst ensuring compatibility with the local economy and communities and ensuring the protection of the natural, built and historic environment the Councils will support the development of a year-round local tourism industry	Strategic Policy PS 14: The Visitor Economy	The inter-relationship between SLVIA and Tourism and Recreation is discussed in **Section 24.6.8**.
The Councils will manage development so as to conserve and where appropriate enhance the Plan area's distinctive natural environment, countryside and coastline, and proposals that have a significant adverse effect on them will be refused unless the need for and benefits of the development in that location clearly outweighs the value of the site or area and national policy protection for that site and area in question.	Strategic Policy PS 19: Conserving and Where Appropriate Enhancing the Natural Environment	The potential seascape, landscape and visual effects associated with all land-based components of the Project are assessed throughout **Section 24.6.**

Policy Description	Reference	ES Reference
Proposals within or affecting the setting and/ or significant views into and out of the AONB must, where appropriate, have regard to the relevant Area of Outstanding Natural Beauty Management Plan.	Policy AMG1: Area of Outstanding Natural Beauty (AONB) Management Plans	Impacts to Anglesey AONB are considered throughout the impact assessment (**Section 24.6**)
Proposals that would have significant adverse impact upon landscape character as defined by the Landscape Character Areas included within the current Landscape Strategy for the relevant authority, must demonstrate through a landscape assessment how landscape character has influenced the design, scale, nature and site selection of the development.	Policy AMG 3: Protecting and Enhancing Features and Qualities that are Distinctive to the Local Landscape Character	Impacts to LCAs, SCAs and the Heritage Coast are considered throughout the Impact Assessment (**Section 24.6**)
It is important that heritage assets - encompassing archaeology and ancient monuments, listed buildings, conservation areas and historic parks, gardens and landscapes are preserved	Policy PS 20: Preserving and Where Appropriate Enhancing Heritage Assets	
Wellbeing of Future Generations (Wales) Act 2015		
A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change).	A resilient Wales	See **Section 24.6** for the impact assessment results.

24.3. CONSULTATION

63. SLVIA scoping was carried out in October 2018 as part of the formal scoping exercise described in **Chapter 6, Consultation**. In addition, considerable consultation has taken place with IoACC and NRW during the preparation of this SLVIA. This has taken place through three specific technical working group (TWG) meetings that have focussed on the issues associated with the SLVIA, including the scope of the assessment and the PDE. **Table 24-3** provides a summary of the comments received during the scoping exercise and the TWG meetings. The TWG discussions have been extensive and are described in detail in the Statement of Common Ground (SoCG) included in **Document MOR/RHDHV/DOC/0071**, with a concise summary provided below. An overall description of consultation undertaken as part of the Project, including the SLVIA, is provided in **Document MOR/RHDHV/DOC/0066, Consultation Report**.

Table 24-3 Summary of Scoping Consultation

Consultee	Date/Document	Comment	Response
Planning Inspectorate	2018 Scoping Comments	The ES should confirm how long the drilling rig would be required at the landfall and this should be factored into the assessment.	The duration of construction activities is described in **Chapter 4: Project Description**. Construction activities are considered in the SLVIA, **Section 24.6.4**
		Table 9-2 of the Scoping Report has not referred to the potential impacts of any works that would	The potential seascape, landscape and visual effects associated with all land based

Consultee	Date/Document	Comment	Response
		be required at the grid connection site (i.e. a substation or switching facility). The ES should assess the potential impacts of all elements of the Proposed Works, including any elements that would be temporary.	components of the Project are assessed throughout **Section 24.6 Impact Assessment**.
		Details of any proposed landscaping should be provided within the ES. Consideration should be given to the length of time for foliage to develop and whether planting could be commenced in advance of construction to maximise the growth period before structures are in place.	There is a commitment to restore land that is disturbed during the construction phase of the Project. No specific planting proposals are incorporated in the Project at present and the mitigation of land based elements of the Project concentrate on site selection and design of the substations. It is envisaged that the detail of any specific additional requirements for planting and restoration would be agreed the future in response to a condition.
		The Scoping Report has not made reference to the selection of viewpoints. However, it is recommended that these are discussed and effort is made to agree them with the local authority and NRW.	Consultation has taken place and the viewpoints included in the SLVIA have been agreed with IoACC and NRW.
		It is recommended that wireframes and photomontages are produced for the offshore and onshore works respectively, in order to aid the reader in understanding the visually prominent characteristics of the Proposed Works. In producing visualisations, including photomontages and wireframes, views should be verified and visualisations should accord with industry standards.	A combination of Wireframes and photomontages have been prepared for the viewpoints included in the SLVIA. These have informed the judgements in **Section 24.6 Impact Assessment**.
NRW	2015 Scoping Comments	The scoping report is brief in setting out the proposal in the seascape and landscape context. It acknowledges the AONB statutory landscape designation and outlines the Seascape Character Area baseline context for the development proposal. We recommend that you utilise	Regional and local seascape units have been referred to in the preparation of the SLVIA, with the focus being on the Seascape Character Assessment Published by IoACC (2013). Further consultation has taken place with NRW and IoACC to inform the SLVIA.

Consultee	Date/Document	Comment	Response
		Regional Seascape Units and Local Seascape Units information. The latter includes a sensitivity assessment to tidal stream development. We recommend that additional advice is sought from NRW advisory in this matter.	
	2015 Scoping Comments	In regard to sensitive viewpoints – the AONB is referred to and distinctiveness of South Stack in particular. Sea views towards the Anglesey coastline as well as views of the sea from the coast are relevant to the assessment. In the case of the former, views from the Ireland to Holyhead Ferry contribute to an important gateway to Wales.	These points have been factored into the SLVIA, including viewpoints that reflect offshore visual receptors (**Viewpoints 13 and 14**).
	2015 Scoping Comments	Section 8.2 land use and quality does not mention that part of Penrhos Beach and all of Penrhos Coast Park which lies within the AONB. The routing of the cable, construction disturbance, location of the substation and potential effects upon the visual amenity of visitors to this part of the AONB need to be considered within the scope of the EIA.	Changes to the design of the Project mean that Penrhos Beach and Coast Park would not be directly affected. The revised deign for the Project includes onshore infrastructure within the AONB and this is assessed in **Section 24.6**.
	2015 Scoping Comments	The list of developments included within the cumulative effects assessment appear to include the relevant consented, operational and in planning development within the vicinity but we recommend Anglesey County Council planning department and NRW MLT are contacted to provide definitive comment on this matter prior to submission of any application.	Up to date information on potential cumulative developments in the Study Area have been reviewed and are considered in **Section 24.6.7**.
	2018 Scoping Comments	The EIA scoping report covers the seascape and landscape baseline context appropriately. As a minor point of clarification, paragraph 2 on page 113 notes that 'construction activity and surface piercing infrastructure would be visible from receptors in areas of offshore SCAs 30, 31 and 32'. We advise that SCA32 therefore needs to be included in table 9-1. Marine Character Area	All SCAs within the Study Area have been considered in the SLVIA, including SCA32. The descriptions of the SCA have been incorporated in the baseline description (**Appendix 24.2**).

Consultee	Date/Document	Comment	Response
		descriptions may also be relevant and should be incorporated within the baseline description where appropriate.	
	2018 Scoping Comments	Visual receptors have been described in general terms. As the project develops we would wish to be consulted on viewpoints that will be used to assess change to visual amenity and change to character. A viewpoint schedule, reason for inclusion, receptor sensitivity and viewpoint location plan would be useful. Photomontage images to help explain the visual aspects of the project will be required.	Viewpoints included in the assessment have been agreed through consultation with NRW and IoACC. Viewpoint location plans were provided as part of this process. The details of all viewpoints that form part of the SLIVA are included in **Appendix 24.3** and are summarised in **Section 24.6.5.4**. A combination of photomontages and wireframes have been prepared as part of the SLVIA.
	2018 Scoping Comments	To help clarify how effects upon natural beauty of the AONB can be addressed, in our experience the visual and character aspects of the assessment need to be brought together when assessing effects upon special qualities and people's perceptions. We recommend that it would be helpful to set this assessment out in the visual effects tables that accompany the photo viewpoint images.	The potential effects on seascape and landscape character are described in **Section 24.6.5.2** and specific consideration of potential effects on the special qualities of the AONB are included in **Section 24.6.5.3.1**.
	2018 Scoping Comments	The potential impacts upon Seascape and Landscape are set out generically at this stage but cover the key themes of the assessment topic appropriately. The category 'changes' to visual amenity is described within the framework of potential impacts on the amenity of the offshore area. We assume, however, that both onshore and offshore visual receptors will be assessed.	Effects on visual amenity for both onshore and offshore visual receptor are considered in relation to all components of the Project.
	2018 Scoping Comments	The project will be informed by a range of constraints and impacts to be avoided or minimised. Imbedded and iterative design are important components of EIA towards impact avoidance, and we would welcome design input imbedded to positively benefit the scheme's visual integration and influence any options being considered.	Iterative design has been an integral part of the design process for both the offshore and onshore components of the Project. The feedback received from NRW and IoACC has also influenced this process. The Project Design Envelope and the mitigation that has been incorporated in this is set out in **Section 24.6.2**.

Consultee	Date/Document	Comment	Response
	2018 Scoping Comments	Wireframe modelling of the development for key sensitive viewpoints, panoramas and sequential views (where they exist) will help identify and look to resolve the potential issues of the offshore development component. A colour assessment for the sub-station and its landscape context is recommended, to identify a palette of integrating colours, given the open and wind-swept nature of much of the AONB. Limited use of lighting is recommended to avoid night time effects upon dark skies/ dark seascapes and tranquillity of the AONB.	Wireframe modelling has been undertaken for all viewpoints included in the SLVIA. The layout and design of the Landfall Substation, including materials and colours, and how these relate to the AONB have been key considerations.
	2018 Scoping Comments	There is no published guidance for the planning and design of tidal arrays in relation to seascape, landscape and visual amenity contexts, however established guidance for wind farm planning and seascapes, seascape sensitivity and assessment methodologies are relevant; for example: ▪ LI and EIMA Guidelines for landscape and visual impact assessment 3rd edition 2013; ▪ Dti Guidance on the assessment of the impact of offshore wind farms 2012; ▪ SNH Offshore renewables - guidance on assessing the impact of coastal landscape and seascape 2012; and ▪ SNH Visual representation of wind farms guidance 2017.	Relevant guidance, including documents stated, has informed the approach to the assessment. This is summarised in **Section 24.4**, with a more detailed assessment methodology included in **Appendix 24.1**.
	2018 Scoping Comments	Due to a lack of detailed drawings, it is difficult to gauge the potential visual impact of the proposed development. From a landscape perspective, it is encouraging to note that comments made earlier scoping opinion have been taken into consideration and incorporated	The potential impacts of all components of the Project have been considered within the 15 km Study Area. The assessment of the onshore components has concentrated on an area extending to 3 km. This has included locations on the Anglesey Coastal Path and

Consultee	Date/Document	Comment	Response
		into the scoping report. However, one particular issue which appears to have been overlooked is that of the 500 m study area for quantifying the offshore effects of the development, particularly when such development is viewed from elevated locations. The Anglesey Coastal Path and the environs of Holyhead Mountain afford such elevated viewing positions and there needs to be an adjustment of the study area in order to increase coverage in this regard. The offshore effects the study area should be extended/adjusted where elevated views may be affected – this should be determined by any Zones of Theoretical Visibility (ZTVs).	the environs of Holyhead Mountain.
	2018 Scoping Comments	Viewpoints for the Landscape and Visual Impact Assessment (LVIA) should be agreed with the local planning authority (LPA) and NRW TE. Given the extent of potential visual impacts, viewpoints should cover the following receptors: ▪ AONB; ▪ Heritage Coast; ▪ Landscape Character Areas; ▪ Seascape Character Areas; ▪ Wales Coast Path; ▪ Onshore recreation and leisure activities within the study area; ▪ Tourist Traffic using the Port of Holyhead; and ▪ Conservation Areas.	Viewpoints included in the SLVIA have been agreed with NRW and IoACC and the majority of the receptors listed are covered. The exception to this is Conservation Areas, but these have been considered within the SLVIA through desk-based analysis, including review of the ZTVs, and fieldwork.
	2018 Scoping Comments	It is unclear if or how the onshore assessment considers properly off-shore effects, for example, some of the generating equipment demonstrated include above water elements. These may well be visible from several viewpoints, particularly elevated ones thereby dictating that viewpoints selected for assessing visual impacts need	The SLVIA considers offshore effects associated with offshore tidal energy devices. This has comprised the analysis of numerous viewpoints along the coastline, including elevated locations.

Consultee	Date/Document	Comment	Response
		to consider effects on expansive sea views.	
	2018 Scoping Comments	Whilst the Isle of Anglesey County Council (IoACC) has not made a formal application to the International Dark-Sky Association (IDA) to attain Dark Sky Community Status for Anglesey, a number of sky quality assessments have been completed. IoACC are currently scoping the most effective approach for preparing and submitting an application to the IDA. The proposed development will need to be assessed against Policy AMG1: (AONB) Management Plans of the Joint LDP 2011 -2026, where 'Proposals within or affecting the setting and / or significant views into and out of the AONB must, where appropriate, have regard to the relevant AONB Management Plan'. Any form of lighting, therefore, will need to consider how it impacts on the AONB aligned to the special qualities within the AONB Management Plan. In this particular case, the two special qualities of the AONB which could be affected are the expansive views / seascapes and; peace and tranquillity. The potential impact on the non-statutory, Holyhead Mountain Heritage Coast designation will need to be considered within the context of the AONB Management Plan. Given the lifespan of the proposed development, the ES should address the onshore facility's decommissioning and site restoration proposals.	The potential lighting associated with the Project has been considered in the SLVIA, including through the inclusion of five specific night time viewpoints. The effects on seascape and landscape character, including the AONB and Heritage Coast are included in the SLVIA. Decommissioning of the Project has been considered at a high level in the SLVIA. It is envisaged that the detail of decommissioning and restoration would be agreed the future in response to a condition.
IoACC	2018 Scoping Comments	The 500 m study area for quantifying the offshore effects of the development should be extended to take into account elevated viewing positions.	A 15 km study area has been used for the assessment of potential effects and takes account of elevated viewing positions.
		Viewpoints and receptors for the Landscape and Visual Impact Assessment (LVIA) should be	Viewpoint and receptors included in the SLVIA have been agreed with both NRW and IoACC.

Consultee	Date/Document	Comment	Response
		agreed with the local planning authority (LPA).	
		The potential for impacts beyond the 500 m study area proposed will be relevant for development within the designated Area of Outstanding Natural Beauty and coastal edge. The following components are identified as the physical components of the proposal: ▪ Export cable to shore and landfall area; and ▪ Onshore cable and substation location; Effects should be considered at the construction; maintenance and decommissioning phases. Section 3.2 notes the parameters that would be defined with a Rochdale Design Envelope. The detail should be adequate in order to assess significance.	The potential impacts of all components of the Project have been considered within the 15 km Study Area. The assessment of the onshore components has concentrated on an area extending to 3 km. This has included locations on the Anglesey Coastal Path and the environs of Holyhead Mountain. The design envelope that forms the basis of the assessment is described in **Section 24.6.2**.
		The number and location of viewpoints should be agreed with the LPA as part of the LVIA. These should encompass the main receptors listed below: ▪ AONB; ▪ Heritage Coast; ▪ Landscape Character Areas; ▪ Seascape Character Areas; ▪ Wales Coast Path; ▪ Onshore recreation and leisure activities within the study area; ▪ Tourist traffic using the port of Holyhead; and ▪ Conservation Areas.	Viewpoints included in the SLVIA have been agreed with NRW and IoACC and the majority of the receptors listed are covered. The exception to this is Conservation Areas, but these have been considered within the SLVIA through desk-based analysis, including review of the ZTVs, and fieldwork.
		The LVIA should also have regard to the possible cumulative effects within the study area of the proposed development with other, particularly energy related development whether existing; permitted or live applications, together with reasonably foreseeable proposals.	Potential cumulative developments in the Study Area have been reviewed and are considered in **Section 24.6.7**.

Consultee	Date/Document	Comment	Response
		We advise that a CLVIA cut-off date be agreed with the LPA. This should be at a date close to the preparation of the applicants Cumulative Assessment. A record of live and determined applications is held by, and available from the Planning Service free of charge.	Up to date information on potential cumulative developments in the Study Area, including planning applications for proposed development submitted to IoACC, have been reviewed and are considered in **Section 24.6.7**.
		Due to a lack of detailed drawings, it is difficult to gauge the potential visual impact of the proposed development. From a landscape perspective, it is encouraging to note that comments made in our earlier scoping opinion have been taken into consideration and incorporated into the scoping report. However, one particular issue which appears to have been overlooked is that of the 500 m study area for quantifying the offshore effects of the development, particularly when such development is viewed from elevated locations.	The potential impacts of all components of the Project have been considered within the 15 km Study Area. The assessment of the onshore components has concentrated on an area extending to 3 km. This has included locations on the Anglesey Coastal Path and the environs of Holyhead Mountain.
		The Anglesey Coastal Path and the environs of Holyhead Mountain afford such elevated viewing positions and there needs to be an adjustment of the study area in order to increase coverage in this regard.	The Anglesey Coast Path and environs of Holyhead Mountain are included within the Study Areas and considered as part of the SLVIA.
		It is unclear if or how the onshore assessment considers properly off-shore effects, for example, some of the generating equipment demonstrated include above water elements. These may well be visible from several viewpoints, particularly elevated ones thereby dictating that viewpoints selected for assessing visual impacts need to consider effects on expansive sea views.	The SLVIA considers offshore effects associated with offshore tidal energy devices. This has comprised the analysis of numerous viewpoints along the coastline, including elevated locations.
		The 500 m study area, will be too narrow to consider off-shore effects. This issue was raised in our earlier scoping report. Given this, the study area needs to be extended/adjusted where elevated views may be affected – this will be determined by any	The potential impacts of all components of the Project have been considered within the 15 km Study Area. The assessment of the onshore components has concentrated on an area extending to 3 km. This has included locations on

Consultee	Date/Document	Comment	Response
		Zones of Theoretical Visibility (ZTVs). Viewpoints for the Landscape and Visual Impact Assessment (LVIA) should be agreed with the local planning authority (LPA). Given the extent of potential visual impacts, viewpoints should cover the following receptors: ▪ AONB; ▪ Heritage Coast; ▪ Landscape Character Areas; ▪ Seascape Character Areas; ▪ Wales Coast Path; ▪ Onshore recreation and leisure activities within the study area; ▪ Tourist Traffic using the Port of Holyhead; and ▪ Conservation Areas.	the Anglesey Coastal Path and the environs of Holyhead Mountain. ZTVs for the components of the Project have been prepared and have influenced the scope of the SLVIA, including the Study Area. Viewpoints included in the SLVIA have been agreed with NRW and IoACC and the majority of the receptors listed are covered. The exception to this is Conservation Areas, but these have been considered within the SLVIA through desk-based analysis, including review of the ZTVs, and fieldwork.
NRW/IoACC	TWG meetings – 30th October 2018, 12th March 2019, 17th April 2019	Discussions relating to the approach to the SLVIA including the extent of the study area, the viewpoint selection for all Project components, the preparation/ presentation of viewpoint photography and related visualisations and the scope of the cumulative assessment.	The SLVIA has taken account of the comments and requests that have been made, as described in the **Statement of Common Ground** in **Document MOR/RHDHV/DOC/0071**.
NRW/IoACC	TWG meeting, 12th March 2019	Concern expressed about the PDE for the MDZ, particularly in relation to the value and sensitivity associated with the local context. It was identified that the closest coastline is highly valued and sensitive to new development. The wild and undeveloped character of Holyhead Mountain was highlighted, with specific reference to Gogarth Bay.	In response to the concerns raised, the PDE was revisited and an alternative approach was presented at the third TWG meeting. This included a range of measures that reduced the extent of the PDE and have been adopted for the proposed development. These embedded mitigation measures are set out in **Section 24.6.2**.
	TWG meeting, 12th March 2019	NRW/IoACC expressed the need for potential effects of the Landfall Substation to be considered carefully and set out that the SLVIA process should inform the approach that is taken. They identified that this was particularly important in the context of the baseline landscape, which comprises an open, exposed coastal	This request has been responded to in the design process. The SLVIA has proactively influenced the design of the Landfall Substation from the selection of the site to the layout of the buildings and the proposed materials. These measures are explained in **Section 24.6.2**.

Consultee	Date/Document	Comment	Response
		landscape that is designated as an AONB.	
NRW/IoACC	Conference call 25th March 2019 and letter from NRW 2nd April 2019	Conference call specifically discussed the Landfall Substation location and design. Subsequent letter from NRW followed up points made during the second TWG meeting (12th March) and the conference call. The points made in relation to the sensitivity of the landscape particularly in relation to potential development in the northern part of the MDZ were confirmed. The two substation locations presented during the conference call are referred to (one near Tŷ Mawr Farm and a second, the proposed site, adjacent to South Stack Road). A general preference is stated in relation to the second of these options i.e. the proposed Landfall Substation location, although residual issues are also stated. A suggestion is made in relation to placing the Landfall Substation in the field to the north east of option two.	Continued consideration has been given to the design and layout of the substation based on the comments from NRW and IoACC. Option two is the location proposed for the substation. Consideration has been given to the field to the north east of option two. However, this has not been taken forward due to the increased project infrastructure that would be required, potential for buried utilities/pipes linked with the nearby reservoir and greater potential for loss of landscape features e.g. potential removal of existing field boundaries.
NRW/IoACC	TWG meeting, 17th April 2019	NRW/IoACC acknowledged the progress that had been made, specifically in relation to the PDE for the offshore components of the Project and the Landfall Substation. It was recognised that this evolution in the Project was positive. However, it was also noted that the Project would still have the potential to result in adverse seascape, landscape and visual effects.	The potential effects of the revised PDE have been assessed in the SLVIA.

24.4. METHODOLOGY

64. The chapter is supported by **Appendix 24.1** (**Volume III**), which contains a detailed description of the method of assessment used to carry out the SLVIA.

24.4.1. Guidance

65. The SLVIA methodology follows good-practice guidance and advice on the assessment of the impacts of development on seascape, landscape and visual resources. A key source of guidance is the Guidelines for Landscape and Visual Impact Assessment (Third Edition, 2013) (GLVIA 3). Other guidance documents, including those specific to photography and visualisation techniques, have also been referred to. These are detailed in **Appendix 24.1** (**Volume III**).

24.4.2. General Methodology

66. The general approach to the SLVIA includes the following key tasks:

- Desk study and preliminary site survey;
- Consultation and confirmation of scope and approach with the NRW and IoACC;
- Baseline assessment of seascape, landscape and visual resources (consisting of desk study, field survey and reporting);
- Layout and design optimisation;
- Assessment of potential seascape, landscape and visual effects (construction, decommissioning and, in particular, residual operational effects); and
- Assessment of potential cumulative seascape, landscape and visual effects.

67. Defining the baseline involved reviewing the existing seascape, landscape and visual resource of the Study Area in terms of its character, value, susceptibility and sensitivity. The baseline assessment forms the basis against which to assess the magnitude and significance of the predicted landscape and visual impacts arising from the Project.

68. The baseline assessment comprises three main stages; desk study; field survey; and analysis. The methods for these three stages are described below.

69. The first stage of the assessment reviewed the existing seascape, landscape and visual resource of the Study Area in terms of its character, value and sensitivity and with reference to existing published sources. The baseline assessment forms the basis against which to assess the magnitude and significance of the predicted landscape and visual impacts arising from the Project.

70. The baseline assessment involved three elements:

- Description – the process of collecting and presenting information about seascape, landscape and visual resources in a systematic manner;
- Classification – the more analytical activity whereby seascape/landscape in particular is refined into units of distinct and recognisable character; and

- Evaluation – the process of attributing a value to a given landscape or visual resource, by reference to specified criteria.

71. Once the baseline context in relation to seascape, landscape and visual receptors has been reviewed, this information is combined with an understanding of the proposed change or development that would be introduced in order to identify and describe the seascape, landscape and visual effects. The assessment process determines whether the level of an effect would be significant or not through methodical consideration of, firstly the sensitivity of seascape, landscape and visual receptors relative to changes as a result of the Project and, secondly, the magnitude of change that they would experience. The relationship between sensitivity and magnitude of change is evaluated to reach a judgement in relation to the level of effect that would occur and whether this would be considered to be significant.

72. Where the seascape, landscape or visual effect has been classified as major or major/moderate, this is considered to be a significant effect in terms of the EIA Regulations. Moderate effects are considered individually to determine whether each effect is significant or not significant. It should be noted that significant effects need not be adverse and may be either negative or positive. The assumption is that effects are negative unless stated.

73. The correlation between receptor sensitivity and the predicted magnitude of change (as set out in **Appendix 24.1**) is not prescriptive. The methodology and analysis of potential effects at any particular location must make allowance for the exercise of professional judgement. Thus, in some instances, a particular parameter may be considered as having a determining effect on the analysis.

24.4.3. Zones of Theoretical Visibility

74. Zones of theoretical visibility (ZTV) have been prepared for the different components of the Project to identify the parts of the Study Area with potential visibility of the Project. Separate ZTVs have been prepared for the offshore development within the MDZ and for each of the onshore substations. The ZTVs have been prepared using Ordnance Survey Terrain 5 and Terrain 50 data. All the ZTVs are based on bare earth terrain data and therefore do not take account of the influence of surface features, such as buildings and vegetation, on potential visibility.

75. Two ZTVs have been prepared for the offshore components. The first of these (**Figure 24-2-1**, **Volume II**) shows the theoretical maximum visibility of the proposed offshore components within the MDZ. This is based on the height of the tallest structure (the electrical hub) and assumes structures of this height are placed around the perimeter of the MDZ. The height of the electrical hub (for the PDE) is 18 m above lowest astronomical tide (LAT). As LAT is 3.05 m below Ordnance Datum (based on data for Holyhead[1]) a height of 14.95 m has been used to calculate the ZTV. This ZTV is considered to represent a likely worst case for the Project.

76. The second ZTV (presented at two different scales in **Figures 24-2-2a** and **24-2-2b**, **Volume II**) is based more specifically on the PDE. It is based on the various heights and positions of the tidal energy devices and electrical devices that make up the PDE. The floating tidal energy devices are not fixed in position but would be moored/anchored to the seabed using cables or chains. This is necessary to allow for varying tide heights and means there would be some movement in the positions of the devices. Therefore, the pattern of visibility would vary with tide heights and flows. However, this ZTV provides a more realistic pattern of theoretical visibility based on the PDE.

77. ZTVs for the three substations are presented in **Figures 24-2-3**, **24-2-4** and **24-2-5** (**Volume II**). These ZTVs are based on the maximum height of proposed structures within each substation: 7 m for the Landfall Substation; 9 m for the Grid Connection Substation and 4 m for the Switchgear Building. For the purposes of these ZTVs it is assumed that a building of these heights would occupy the entire footprint of the substation footprint.

24.4.4. Supporting Visualisations

78. The SLVIA is supported by a range of figures including viewpoint photography. The viewpoint assessment has been carried out to identify and evaluate potential effects on seascape/landscape and visual amenity arising from the Project at specific and representative locations in the Study Area. This concentrates on publicly accessible areas such as the road and public footpath network, residential and outdoor recreational areas. Viewpoints have been selected in consultation with NRW and IoACC. The viewpoints are considered to be representative of the spectrum of receptors in the Study Area, located at different distances, directions and heights relative to the Project and accord with best practice guidance. The viewpoint locations are shown in **Figures 24-1-4** (**Volume II**), with more detailed locations shown in **Figures 24-1-4a** to **24-1-4f** (**Volume II**).

79. The assessment has involved the production of computer generated wireframes and photography. Photography was obtained using a full frame digital Single Lens Reflex (DSLR) camera mounted with a 50 mm ‘fixed’ lens (predominately Nikon D600). The camera was mounted on a tripod with a panoramic head in order to obtain a stable platform and the single frame and panoramic views. The position of the tripod was recorded with a handheld GPS

[1] - https://www.ntslf.org

device. In addition to recording the location of the viewpoint, observations relating to time of day, weather, cloud cover, and visibility were recorded.

80. Following completion of the fieldwork, the photography was reviewed and the clearest images selected for the production of panoramic images. In some cases, small adjustments were made to the images through the use of Adobe Photoshop software in order to improve clarity. The panoramas were then prepared through the joining of individual frames in Photoshop to generate 360 degree panoramas.

81. The visualisations supporting the SLVIA have been presented in order to provide a view of the elements of the Project within its seascape/landscape context and assist the assessor in determining the change and resultant effect on the viewpoint location.

82. The photomontages have been prepared through the use of Adobe Photoshop CC (2019), 3D Studio Max (2019) and Vray (3.6) software. This allows the devices to be accurately positioned in the photograph/panorama and rendered so as to account for cloud cover, sun position and colour of the device. While every effort is undertaken to render the devices to account for the prevailing lighting conditions, where the devices may appear indistinct to the background, manipulation of the rendering has been applied in order to make the structures appear more distinct for the purposes of clarity within the assessment.

83. The presentation of graphics material requires careful consideration in order to prepare a visualisation that provides an accurately scaled depiction of the Project for use at the viewpoint location. The presentation of the visualisations is based on principles included in the guidance provided in Photography and Photomontage in Landscape and Visual Impact Assessment (Landscape Institute Advice Note 01/11) and Visual Representation of Wind Farms (Scottish Natural Heritage, February 2017). The visualisations should be used in the field at the viewpoint location. Instructions for viewing the visualisations are provided on the figures for each viewpoint. It should be noted that in reality neither photographs nor visualisations can convey a view exactly as it would be seen by the human eye.

24.4.5. Study Area

84. The Study Area for the SLVIA extends to a 15 km radius from the MDZ. The terrestrial elements of the Project are all located within this overall Study Area. However, the assessment relating more specifically to the substations concentrates on a more focussed area around each site, up to approximately 3 km. The 15 km radius Study Area has been used for the assessment of effects upon seascape and landscape character, landscape designations, visual receptors and the cumulative assessment. The extents of the Study Area are based on professional judgement and experience and is considered to be appropriate for the identification of the potentially significant effects associated with the nature and location of the different elements of the Project, and consistent with accepted industry best practice. The extent of the Study Area has been agreed in consultation with NRW and IoACC.

24.4.6. Data Sources – Desk Study

85. Baseline sources for information about the Study Area which have been reviewed in the preparation of this SLVIA include the following:

- Current and Historical Ordnance Survey (OS) Maps;
- Admiralty Charts;
- Aerial Photography;
- Published Landscape Character Assessments;
- Published Seascape Character Assessments;
- Inventories of Designated Landscapes;
- National Planning Guidance;
- Development Plans;
- Non-Statutory Planning Documents;
- Historic and cultural guides and interpretation boards in the local landscape; and
- Conservation information relating to archaeology, cultural heritage, buildings and other conservation interests.

24.4.7. Data Sources – Site-specific Surveys, Reports and Guidance

86. The following documents have been referred to in the preparation of the SLVIA:

- Landscape Institute and Institute of Environmental Management and Assessment (2013) *Guidelines for Landscape and Visual Impact Assessment (GLVIA 3)*, Third Edition;
- The Countryside Agency and Scottish Natural Heritage (2002), *Landscape Character Assessment: Guidance for England and Scotland*;
- Countryside Council for Wales, Brady Shipman Martin, University College Dublin, (March 2001) Report No. 5 *Guide to Best Practice in Seascape Assessment*; Maritime Ireland/Wales INTERREG 1994-1999;
- LDA (2012) *An Approach to Seascape Character Assessment*, Natural England;
- Enviros Consulting (2005) *Seascape and Visual Impact Assessment Guidance for Offshore Wind Farm Developers*, DTI;
- Landscape Institute (2011) *Photography and Photomontage in Landscape and Visual Impact Assessment*, Landscape Institute Advice Note 01/11;
- Scottish Natural Heritage (2017) *Visual Representation of Wind Farms*, Version 2.2
- LUC (2015) *National Seascape Assessment for Wales*, Natural Resources Wales;
- Natural Resources Wales (dates vary for different character area profiles) National Landscape Character Areas;
- Natural Resources Wales. LANDMAP Information.
- Fiona Fyfe Associates with Countryscape and Bangor University (SEACAMS), (2013) *Anglesey Seascape Character Assessment*, Isle of Anglesey County Council;
- TACP (2011) *Anglesey Landscape Strategy update,* Isle of Anglesey County Council;

- Isle of Anglesey County Council and Natural Resources Wales. The Isle of Anglesey Areas of Outstanding Natural Beauty; Management Plan Review 2015 to 2020;
- International Association of Marine Aids to Navigation and Lighthouse Authorities (December 2013). IALA Recommendation O-139 on The Marking of Man-Made Offshore Structures, Edition 2; and
- International Association of Marine Aids to Navigation and Lighthouse Authorities (May 2013). IALA Recommendation E-108 on The Surface Colours used as Visual Signals on Aids to Navigation, Edition 3.

24.5. EXISTING ENVIRONMENT

87. This section provides a general description of the seascape, landscape and visual context of the RLB and Study Area. It briefly describes the historical and cultural context within the Study Area, identifying both sensitive locations and receptors to be addressed in the subsequent impact assessment. Elements of this information is presented in greater detail in other relevant sections of this ES (e.g. **Chapter 20, Onshore Archaeology and Cultural Heritage**), but a review of the local coastal area in relation to its amenity use and conservation designation status is briefly summarised below in order to provide a more accessible context for the baseline description of the seascape and landscape.

24.5.1. Regional Context

88. The MDZ lies off the west coast of Holy Island, Anglesey. Inshore to the east is Holyhead Mountain, and to the south the lower lying coast of Rhoscolyn and Rhosneigr, and further to the south Caernarfon Bay. To the north is the open sea to the north of Anglesey and to the north east Holyhead Bay opens, beyond Holyhead Mountain, framed by the distant headland at Carmel Head. Holyhead Mountain, 220 m AOD, is a prominent landmark onshore, and gives a strong sense of place and orientation throughout the Study Area. In wider views from the Study Area the mountains of Snowdonia frame views to the east and the distant profile of the Llyn peninsula frames the southern edge of Caernarfon Bay.

89. There is a long and continuing tradition of maritime communications, particularly with Ireland, and the area is well used by commercial shipping, passenger ferries, cruise ships, fishing vessels and recreational vessels.

90. The MDZ forms a seven-sided polygon, indented on its eastern side reflecting the shape of the coastline. The zone is focussed on the area of strong tidal flow around the north west part of Holy Island. It lies between approximately 500 m and 1.5 km from the closest part of the west coast of Holy Island, with the closest section of the coast to the MDZ being between South Stack and Penrhyn Mawr. It extends north into the south western edge of Holyhead Bay and 1 km to the south of Ravens Point at its southern extent. The MDZ measures approximately 4 km from east to west in the north, 5.5 km from east to west in the south and is approximately 8.5 km from north to south. The MDZ is shown in the figures that support the SLVIA e.g. **Figure 24-1-1** (**Volume II**).

24.5.2. General Characteristics and Features of the Study Area

24.5.2.1. Topographical Features

91. The topography of the Isle of Anglesey is generally subdued with a rolling, undulating pattern interspersed by harder, rocky outcrops such as Holyhead Mountain. The landform falls from east to west, with a number of low-lying areas along the western coast. This general character belies a complex, underlying geology and effects of geomorphological processes such as glaciation.

92. Holyhead Mountain forms the highest point on Anglesey, rising up to 220 m AOD. It has a distinctive rounded profile which reflects the underlying geology of metamorphic Cambrian age rocks and includes the well-known South and North Stacks on its rocky northern coastline. The landscape is wild and untamed and provides a vantage point for expansive views to the west and provides relative containment to the inland areas to its east.

93. The northern and middle portion of Holy Island is relatively low lying but is interspersed with frequent craggy outcrops which give rise to an undulating terrain. Further south around Rhoscolyn where glacial clay cover is more widespread, the landscape is softer and more rolling, interspersed with occasional rocky outcrops.

94. To the east, the inland sea between Holy Island and Anglesey lies at a low level, a discrete enclosed landscape.

95. To the north west of the Study Area the rocky coastline along the north west coast of Anglesey forms a sequence of rocky cliffs and headlands between Alaw Bay in the south to Carmel Head in the north. To the east of this coastline the inland areas are characterised by extensive drumlin fields, orientated with a south west to north west striation, formed by the deposition of boulder clay during the glacial retreat of the last Ice Age. Interspersed with this landform are a number of hard rocky features such as Mynydd y Garn and Mynydd Mechell.

96. At the south western extent of the Study Area the rural area of west central Anglesey is underlain with granite giving rise to an area of undulating topography with occasional outcrops.

24.5.2.2. Natural Heritage Features

97. The Study Area covers a diverse range of landscapes, encompassing both lowland and upland areas that support a variety of flora and fauna. In addition, the geology of the region provides a broad range of sites of geological and geomorphological interest. The key natural heritage attributes can be broadly summarised as follows:

- Upland/moorland habitats;
- Rock outcrops;
- Dry heaths and scrub;
- Areas of acid grassland;
- Marshland;

- Littoral;
- Intertidal; and
- Maritime.

98. Extensive tree cover is generally scarce with the exception of the area around Penrhos and the edge of the inland sea where there are areas of estate plantation and semi-natural woodlands. Generally, the land cover is dominated by improved grassland within a mosaic of fenced/walled and hedged pastures.

24.5.2.3. Archaeological Features

99. The Study Area has a rich cultural history with evidence of man's actions extending over some 8000 years. There are over 200 Scheduled Ancient Monuments within Anglesey ranging from Bronze Age burial chambers to later medieval features. Locally, the following are important sites:

- Holyhead Mountain has three scheduled monuments: Caer Y Twr Iron-Age hillfort; Cytiau'r Gwyddelod prehistoric hut circles; and a Roman watchtower;
- To the south of Holyhead are the adjacent scheduled monuments sites of Tŷ-Mawr Standing Stone and Trefignath Burial chamber;
- Penrhos Feilw standing stones to the east of Abraham's Bosom;
- The early medieval chapel at Towyn-y-capel and the associated burial ground at Trearddur Bay have been lost through coastal erosion. Stone axes and Roman coffins have been found on the beach at Trearddur Bay confirming a long history of use of the foreshore;
- Further south within Rhosneigr there are further Scheduled Ancient Monuments at Barclodiad y Gawres Burial Chamber on the headland above Porth Trecastell and the Ty Newydd Burial Chamber on elevated land to the north west of Rhosneigr; and
- Numerous features associated with the long-term settlement at Holyhead including the Caer Gybi Roman Fort scheduled monument site.

24.5.2.4. Built and Other Heritage Features

100. More recent features include the planned landscapes of large estates, such as Plas Newydd, major transportation routes and industrial features including nuclear power and windfarms.

101. At Holyhead Mountain there is an old signal station (part of Holyhead-Liverpool Telegraph); Cliff top cannon (and magazine) fired to warn vessels which were too close to the shore; South Stack lighthouse (established 1809) and footbridge connecting the stack to the shore; as well as numerous shipwrecks in the seaward component of the Study Area. The quarry on the north coast was used as a source of stone for construction of Holyhead harbour breakwater (now part of Breakwater Country Park). The industrial landscape also includes the quarry tramway, two large limekilns and a powder magazine.

102. There are numerous defensive sites associated with Holyhead Harbour including the Napoleonic War battery at Penrhos, Soldiers Point, and WW2 pillbox defences. Central Holyhead has Conservation Area status reflecting its long history, covering the old harbour and many buildings in the town. Modern industrial heritage includes the former industrial site of Anglesey Aluminium located to the east of Holyhead, with its tall chimney stack which forms a major landmark feature in views.

103. The north west coast of Anglesey though now tranquil, includes areas of former quarries, brickworks and lime kilns. The former copper mine at Parys Mountain and former brickworks at Porthwen are distinctive remnants of this past. The nuclear power station at Wylfa to the west of Cemaes forms a notable industrial landmark on the coastline.

24.5.2.5. Settlement

104. Holyhead and Trearddur form the main settlements on Holy Island. Holyhead to the north of the island is centred on a Roman town and has become a major port through trading with Ireland. In more recent years the arrival of the A55 has increased traffic to and through to town. Holyhead is the main centre of population in the Study Area with dense urban development, industry and infrastructure.

105. In contrast, Trearddur to the south of Holy Island is a settlement focussed on tourism. The hotels, second homes, camping and caravan sites, together with the golf course all contribute to its character.

106. Similarly, Rhosneigr a coastal village in the south of the Study Area has expanded in recent years under the influence of tourism.

107. Other key centres of population within the 15 km Study Area include: Valley; Bodedern; Caergeiliog; Llanfihangel yn Nhowyn; Aberffraw; Llanfaethlu; and Rhydwyn.

108. A number of smaller settlements lie within 10 km of the Project and those settlements with expansive coastal views have also been considered in the assessment. These include: scattered settlement at Rhoscolyn; scattered settlement at Penrhosfeilw to the west of Trearddur; and at Swtan to the south of Carmel Head.

24.5.2.6. Main Roads

109. The A5 corridor, and its modern neighbour the A55, form key elements within the historic and cultural development of the island. The construction of the A5 by Telford, as a response to the need to improve links with Ireland, cemented the development of Holyhead as a major port. The A55 now forms the principal road connection in the Study Area. Other main roads within the Study Area include the A4080 which connects between the A55/A5 and Rhosneigr/Llanfaelog and the A5025 which connects the A55/A5 to settlement within the north west of Anglesey.

110. A key coastal route within the Study Area is the B4545, linking between Valley and Holyhead via Trearddur and the network of minor roads which lead from it including Lon Isallt, Porthdafarch Road, Plas Road, South Stack Road and Ravenspoint Road.

24.5.2.7. Railway Lines

111. The North Wales Coast Line connects services from the north west and in particular Crewe as the main junction with the West Coast Line, through to the port of Holyhead. The route closely follows the A55 corridor between Holyhead and Valley, at which point it arcs to the south through to Rhosneigr before re-joining with the A55 alignment at the crossing of the Menai Strait to the east.

24.5.2.8. Ferry

112. Stena Line and Irish Ferries sail from Holyhead to Dublin in Ireland, forming the principal link for surface transport from north Wales and central and northern England to Ireland. There are currently nine sailings departing and arriving Holyhead daily, with eighteen daily ferry transits beyond the northern edge of the MDZ.

24.5.2.9. Cycle Network

113. The National Cycle Network (NCN) is co-ordinated by the charity Sustrans and forms a comprehensive network of signed cycling routes (NCN Routes) across the UK. Two sections of the NCN pass through the Study Area:

- NCN Route 5 connects Reading and Holyhead, passing through the Study Area on minor roads from Llanddeusant, Bodedern and Valley before joining the A5 to Holyhead; and
- NCN Route 8, known as the Lôn Las Cymru, connects Cardiff and Holyhead, passing through the Study Area on minor roads from Llanfairyneubwll before joining the A5 to Holyhead.

114. Four interconnected local cycle routes are promoted across Holy Island by Cybi Bikes which follow the network of minor roads:

- Porth Darfach Loop;
- Trearddur Loop;
- Four Mile Bridge Loop; and
- Rhoscolyn Loop.

115. NCN Routes and key local routes within the Study Area are shown in **Figure 24-1-2b** (**Volume II**).

24.5.2.10. National Trails

116. The Isle of Anglesey Coastal Path runs for 200 km (120 miles) along the coast and follows the coastline of the Study Area. Highlights include Holyhead Mountain, South Stack lighthouse and sea cliffs, the sea arches at Rhoscolyn, and the headland at Carmel Head. The route is part of the Wales Coast Path, with the two routes being almost identical through the Study Area. The route of the Anglesey Coastal Path/Wales Coast Path within the Study Area is shown on **Figure 24-1-2b** (**Volume II**).

24.5.2.11. Tourism and Recreation

117. Typically, opportunities for tourism and recreation within the Study Area focus on outdoor pursuits such as walking, cycling and horse riding, enjoying the large range of landscape features, archaeological sites, and other landmarks present throughout the area. These activities tend to take place in the coastal areas towards the west of the Study Area. The Anglesey AONB and Heritage Coast provide extensive opportunities for walking. Within the lowland areas there are opportunities for angling, walking, bird watching and golf.

118. The coast also provides a huge resource and focus for local tourism with Holyhead Mountain, Trearddur Bay to the west of Holy Island and Rhoscolyn to the south providing many opportunities for informal recreation whilst resort towns such as Trearddur and Rhosneigr offer formal tourist facilities.

119. Specific visitor attractions include South Stack Seabird Centre, Holyhead Breakwater Country Park and Penrhos Country Park. The beaches at Porth Dafarch, Trearddur Bay, Borthwen, Silver Bay, Rhosneigr are notable destinations for recreation.

24.5.2.12. Seascape and Landscape Character

120. Seascape is defined by Natural England in its position statement on All Landscapes Matter (2010) as: *"An area of sea, coastline and land, as perceived by people, whose character results from the actions and interactions of land with sea, by natural and/or human factors".*

121. An approach to Seascape Character Assessment, (Natural England, 2012) confirms that: *"A Seascape Character Assessment can provide a baseline against which the effects of change can be judged…and can help determine mechanisms that can be deployed to guide positive decision-making and action to protect, manage, plan and promote seascape character in the future". "Characterisation concentrates on making clear what makes one area different or distinctive from another."*

122. The Guide to Best Practice in Seascape Assessment (Countryside Council for Wales, Brady Shipman Martin and University College Dublin, 2001) sets out the elements of seascape assessment which differ from landscape assessment. Of those listed it refers to the sea's variability and dynamism, stating that a *"feature of seascape is its variability. The most important variables in determining the character of the sea are wind, light, tidal movements and the clarity or otherwise of the atmosphere. It is this play of light and shade, the noise of the waves breaking on the shore and the promise of change that gives the sea a special quality in any view…altered hugely by the weather to a far greater extent than any terrestrial, rural or urban environment."*

123. The baseline assessment has reviewed the existing seascape character assessments prepared for the Study Area. The key documents referred to are the Anglesey and Snowdonia Seascape Character Assessment, 2013 and the National Seascape Assessment for Wales, 2015. Whilst both documents have been referred to, the former document provides a finer grain of detail and is considered appropriate to inform decision making for the Project. In this regard the baseline seascape assessment adopts the seascape units described in the Anglesey Seascape Character Assessment, 2013.

124. Analysis of this character assessment identifies that the following 10 seascape character areas (SCA) are located within the Study Area:

- SCA 9 - Cemlyn Bay;
- SCA 10 - Carmel Head to Penrhyn;
- SCA 11 - Holyhead
- SCA 12 - Inland Sea;
- SCA 13 - Holyhead Mountain;
- SCA 14 - Rhoscolyn;
- SCA 15 - Rhosneigr;
- SCA 30 – North West of Anglesey;
- SCA 31 – West of Anglesey; and
- SCA 32 – Caernafon Bay;

125. In addition to the SCAs defined in the Anglesey and Snowdonia Seascape Character Assessment, 2013 the IoACC have published the Anglesey Landscape Strategy 2011 (update) which provides an updated landscape characterisation of the Anglesey landscape. The Anglesey Landscape Strategy 2011 divides the landscape into separate sets of landscape character areas (LCAs) which have a degree of overlap with the SCAs. The use of these published character assessments in the SLVIA has been agreed with IoACC and NRW at the technical working group meetings.

126. To avoid a duplicate assessment of areas where the SCAs and LCAs overlap, a rationalisation of the character areas has been undertaken. For much of the Study Area the SCAs have been used, but for the onshore areas beyond the boundary of the SCAs, the LCAs defined within the Anglesey Landscape Strategy 2011 have been used. These rationalised character areas retain their SCA and LCA suffixes, in line with the terminology used in the two sets of landscape character information. The LCAs included from the Anglesey Landscape Strategy 2011 falling within the Study Area are as follows:

- LCA 5 – North West Anglesey;
- LCA 16 - Aberffraw;
- LCA 17 – West Central Anglesey; and
- LCA 18 – Valley Airfield Environs;

127. The studies noted above provide an assessment of the seascape and landscape character of the area and consider the likely pressures and opportunities for change in the landscape. The characteristics of these SCAs and LCAs, together with their associated value, susceptibility and sensitivity are described in **Appendix 24.2** (**Volume III**). The 10 SCAs and 4 LCAs that fall within the 15 km Study Area are illustrated in **Figure 24-1-3** (**Volume II**).

128. The MDZ is almost entirely situated within SCA 31, West of Anglesey. The onshore components of the Project are located within SCA 11, Holyhead (Grid Connection Substation and part of the

onshore cable route) and SCA 14, Rhoscolyn (Landfall Substation, Switchgear Building and part of the onshore cable route).

129. In undertaking the preliminary assessment and review of baseline material against the visibility mapping of the Project, and through subsequent fieldwork, it is considered that a 15 km radius is more than sufficient to identify the likely significant seascape, landscape and visual effects associated with the Project. Beyond this, even if visible, the components of the Project would be seen as very distant elements with a very limited influence on the characteristics, defining features and/or special qualities of the SCAs/LCAs. The SCAs/LCAs within a 15 km radius of the Project, as defined within the documents identified above, have been reviewed in detail, and are considered to provide an appropriate basis to describe the seascape/landscape character of the Study Area surrounding the Project.

130. Review of the SCAs and LCAs in relation to the ZTV immediately identifies that very limited visibility of the MDZ would occur in relation to LCA 18 – Valley Airfield. In addition, this LCA is relatively remote from the other components of the Project, with the closest being the Grid Connection Substation (approximately 4.5 km to the north west). Therefore, the potential effects of the Project are predicted to be minimal, and not significant, and this LCA has not been considered further in the assessment. As identified by the ZTV, the remaining SCAs/LCAs would potentially be affected by the Project and are listed in **Table 24-4**.

Table 24-4 SCAs / LCAs within the 15 km Study Area within the Zone of Theoretical Visibility

Seascape / Landscape Character Type / Area	Source	Seascape / Landscape Value	Susceptibility to the Project	Sensitivity to Change Associated with the Proposed Development
SCA 9 - Cemlyn Bay	Anglesey SCA 2013	National	High	High
SCA 10 - Carmel Head to Penrhyn	Anglesey SCA 2013	National	Medium	High/medium
SCA 11 – Holyhead	Anglesey SCA 2013	National to community	Medium	Medium
SCA 12 – Inland Sea	Anglesey SCA 2013	National	Medium	High/medium
SCA 13 - Holyhead Mountain	Anglesey SCA 2013	National	High	High
SCA 14 - Rhoscolyn	Anglesey SCA 2013	National to community	High/medium	High/medium
SCA 15 - Rhosneigr	Anglesey SCA 2013	National to low	High/medium	High/medium
SCA 30 – North West of Anglesey	Anglesey SCA 2013	Local authority	Medium	Medium
SCA 31 – West of Anglesey	Anglesey SCA 2013	Local authority	Medium	Medium
SCA 32 – Caernafon Bay	Anglesey SCA 2013	Local authority	High/medium	High/medium
LCA 5 – North West Anglesey	Anglesey Landscape Strategy 2011	National to community	Medium	Medium
LCA 16 - Aberffraw	Anglesey Landscape Strategy 2011	National to community	High	High

Seascape / Landscape Character Type / Area	Source	Seascape / Landscape Value	Susceptibility to the Project	Sensitivity to Change Associated with the Proposed Development
LCA 17 – West Central Anglesey	Anglesey Landscape Strategy 2011	Community	Medium	Medium

24.5.2.12.1. LANDMAP Aspect Areas

131. The published seascape and landscape character assessments take account of LANDMAP. The SLVIA concentrates on these published character assessments and this approach was agreed at the technical working group meetings. However, to gain deeper understanding of the potential sensitivities the LANDMAP Aspect Areas applicable to the context of the Project have also been reviewed.

24.5.2.13. Cultural Landscape

132. The majority of Cultural Landscape Aspect Areas close to the Project are evaluated as being outstanding. The key Aspect Area that lies in the local context is Holyhead Mountain. This extends beyond Holyhead Mountain itself and applies to much of the north-western part of Holy Island. The outstanding evaluation relates to the way this landscape forms a backdrop to Holyhead and how it comprises the first sight of Wales for people travelling to Wales from Ireland by sea. Other Cultural Heritage Aspect Areas within the Study Area are typically evaluated as being outstanding due to the settlement pattern and tourism value attached.

24.5.2.14. Geological Landscape

133. The local context of the Project comprises a mosaic of different Aspect Areas. Those evaluated as outstanding and high include South Stack-Holyhead Coast, South Stack (east of South Stack itself) and Holyhead Mountain.

24.5.2.15. Historic Landscape

134. Almost the entire local context of the Project is evaluated as being outstanding. This comprises two aspect areas; Holy Island/South Stack and Holyhead. The evaluation for Holy Island/South Stack relates to the historic settlement and agricultural uses, also including relic pre-historic ceremonial sites. Holyhead is recognised for its historical and recent settlement, with the description outlining how this Aspect Area has evolved from pre-historic to current times.

24.5.2.16. Landscape Habitats

135. There is a wide range of Aspect Areas within the north-western part of Holy Island. The evaluation of these habitats varies from outstanding to low. Those evaluated as outstanding typically comprise the unimproved habitats, including heath and coastal habitats. Aspect Areas with lower evaluation comprise improved agricultural landscape and settlement.

24.5.2.17. Visual and Sensory

136. The majority of the north-west part of Holy Island is evaluated as outstanding and high. Those assessed as outstanding comprise Holyhead Mountain and the coastline in the vicinity of South Stack and North Stack, with the analysis focussing on the dramatic and relatively remote character, the relationship with the coastline sea and associated expansive views are key elements. The land south and south-west of Holyhead is evaluated as high, whilst this landscape is less dramatic than further north-west it still comprises an attractive rural landscape, with coastal views noted as a particular component.

24.5.3. Seascape and Landscape Designations

137. Seascape and Landscape designations are important in the context of the SLVIA with regard to the potential effects of the Project on the seascape/landscape value and visual amenity of designated areas within the Study Area.

138. Seascapes and Landscapes designated at the national level in Wales include AONBs and Heritage Coasts. SLAs are designated by local authorities. The location and extent of these designations as they occur within the Study Area are shown on **Figure 24-1-2a** (**Volume II**). The details of these designations are set out in **Section 24.2.1** and include:

- The Isle of Anglesey AONB;
- Two sections of Heritage Coast;
- One SLA;
- One Registered Park and Garden; and
- Four Conservation Areas within Holyhead and Bodedern.

24.5.4. Baseline Visual Resources

139. A key component of the assessment is the appraisal of effects on visual amenity from key locations within the Study Area. This assessment is undertaken through analysis of visibility mapping and confirmation of the extent of visibility, through the preparation of wireframes and use of these in the field in combination with photomontages.

24.5.4.1. Viewpoint Selection

140. Viewpoints for the visual assessment for both the offshore and onshore components of the Project were identified following production of the ZTV plans. A preliminary list of viewpoints was compiled and discussed with consultees as part of the scoping exercise, as summarised in **Section 24.3**. Additional viewpoints were added following meetings between HEPLA, IoACC, and NRW in November 2018. The types of receptors considered includes the following:

- Different SCAs/LCAs;
- Designated and other sensitive landscapes;
- Settlements (towns and villages, as well as smaller groups of residential properties);
- Roads (main and minor);

- Public footpaths and cycle routes including National Trails, marked footpaths, NCN Routes, and Public Rights of Way (PRoWs);
- Marked/popular viewpoints;
- Other outdoor recreational resources;
- Scheduled Monuments; and
- Visitor/tourist facilities such as camp sites, hotels and visitor attractions.

141. In order to confirm the appropriateness of the viewpoint selection, field survey verification was carried out. This involved checking the viewpoint grid references on the ground, to ensure that there would be potential views of the Project from these locations, noting that some changes to the PDE have influenced the level of visibility as the assessment work has progressed.

142. The viewpoints taken forward for full assessment include 20 viewpoints (including those use to assess night time effects) that cover a range of representative seascape, landscape and visual receptors, distances from the offshore component of the Project, as well as varying altitudes and directions, with the aim of achieving a reasonable distribution at compass points around the application site. In addition, 11 viewpoints have been selected for the visual assessment of the Landfall Substation, Grid Connection Substation and Switchgear Building. Viewpoints were visited as part of the baseline visual assessment, and panoramic photographs of the existing views have been taken.

143. The final list of the agreed viewpoints for the offshore component of the proposed development, is shown in **Table 24-5** to **Table 24-9** and their locations are illustrated in **Figure 24-1-4** (**Volume II**). Photographs of the existing views from these viewpoints are shown in **Figures 24-3-1** to **24-3-19** (**Volume II**). The final list of the agreed viewpoints for the Landfall Substation, Grid Connection Substation and Switchgear Building components of the proposed development, are shown in **Table 24-7, Table 24-8** and **Table 24-9**, and their locations are illustrated in **Figures 24-1-4e** and **24-1-4f** (**Volume II**). Photographs of the existing views from these viewpoints are shown in **Figures 24-3-21** to **24-3-31** (**Volume II**). Night time photomontages are included in **Appendix 24.4**.

Table 24-5 Viewpoints for the Assessment of Offshore Components

No.	Viewpoint Location	Distance from and Direction to MDZ	Receptors	Grid Ref.
01	Summit of Holyhead Mountain	1.7 km to the west.	Walkers visiting summit	221847 382943
02	Near Parliament House, North Stack	1 km to the west.	Residents, walkers (including people walking the Wales Coast Path/Isle of Anglesey Coast Path)	221557 383887
03	Car park at South Stack Light House	900 m to the west	Tourists/visitors to the car park, walkers (including people walking the Wales Coast Path/Isle of Anglesey Coast Path)	220578 382277

No.	Viewpoint Location	Distance from and Direction to MDZ	Receptors	Grid Ref.
04	Ellin's Tower, South Stack	900 m to the west.	Visitors to South Stack RSPB visitor centre, walkers (including people walking the Wales Coast Path/Isle of Anglesey Coast Path)	220637 382001
05	Cytiau'r Gwyddelod Scheduled Monument	1.4 km to the west	Visitors to heritage asset (promoted site with interpretation)	221151 381951
06	South Stack Cliffs Nature Reserve/Penrhyn Mawr	600 m to the west.	Visitors to nature reserve, walkers (including people walking the Wales Coast Path/Isle of Anglesey Coast Path)	221108 379715
07	Porth Dafarch, Wales Coast Path	2.8 km to the west	Visitors to Porth Dafarch, walkers (including people walking the Wales Coast Path/Isle of Anglesey Coast Path)	223378 379696
08	Ravens Point Road, Trearddur	4 km to the west.	Residents of/visitors to Trearddur, walkers (including people walking the Wales Coast Path/Isle of Anglesey Coast Path), road users	225220 378097
09	Rhoscolyn Head	5 km to the north west.	Residents, walkers (including people walking the Wales Coast Path/Isle of Anglesey Coast Path)	225784 375512
10	High Street Rhosneigr	11.5 km to the north west.	Residents of Rhosneigr, walkers (including people walking the Wales Coast Path/Isle of Anglesey Coast Path), road users	231644 372749
11	Barclodiad y Gawres Scheduled Monument	13.6 km to the north west	Walkers (including people walking the Wales Coast Path/Isle of Anglesey Coast Path), visitors to heritage asset (promoted site with interpretation)	232899 370729
12	Coast Path beneath Penbrynyreglwys	10.5 km to the south west.	Walkers (including people walking the Wales Coast Path/Isle of Anglesey Coast Path)	229211 392011
13	Route of Holyhead To Dublin Ferry	1.9 km to the south.	Offshore visual receptors, particularly ferry passengers	222222 386886
14	South West Extent of Project Area	2.4 km to the north east.	Offshore visual receptors, particularly people on recreational vessels	213800 375607

Table 24-6 Night Time Viewpoints for the Assessment of Offshore Components

No.	Viewpoint Location	Distance from and Direction to MDZ	Receptors	Grid Ref.
15	Car Park at South Stack Light House	900 m to the west	Tourists/visitors to the car park	220578 382277
16	Ellin's Tower South Stack	900 m to the west.	Visitors to South Stack RSPB visitor centre.	220637 382001
17	Promenade Trearddur Bay	4.7 km to the west.	Residents of/visitors to Trearddur	225696 378816
18	Ravens Point Rd, Trearddur	4 km to the west.	Residents of/visitors to Trearddur, road users	225220 378097
19	Swtan	9.6 km to the south west.	Residents of Swtan	230027 389188
20	Holyhead Breakwater	4.5 km to the west	Offshore visual receptors, particularly ferry passengers	225673 384755

Table 24-7 Viewpoints for the Assessment of the Landfall Substation

No.	Viewpoint Location	Distance from and Direction to Landfall Substation	Receptors	Grid Ref.
S01	South Stack Road nr. Tŷ-mawr Farm	90 m to the west	Road users	222060 381905
S02	Junction between South Stack Road and road to Trearddur	390 m to the north east	Road users, walkers following the Wales Coast Path/Isle of Anglesey Coast Path	221702 381500
S03	Henborth, South Stack Road	360 m to the north east	Road users, walkers following the Wales Coast Path/Isle of Anglesey Coast Path	221559 381641
S04	Wales Coast Path/Isle of Anglesey Coast Path, adjacent to the road to Trearddur	600 m to the north east	Road users, walkers following the Wales Coast Path/Isle of Anglesey Coast Path	221746 381264
S05	Southern slopes of Holyhead Mountain	640 m to the south east	Walkers, Open Access Land close to Public Rights of Way	221675 382536

Table 24-8 Viewpoints for the Assessment of the Grid Connection Substation

No.	Viewpoint Location	Distance from and Direction to Grid Connection Substation	Receptors	Grid Ref.
S06	A55 south of Orthios site	150 m to the north east	Road users travelling along A55	226860 380520

S07	Industrial access road south west of Orthios site	20 m to the north	Employees – industrial site	227041 380610

Table 24-9 Viewpoints for the Assessment of the Switchgear Building

No.	Viewpoint Location	Distance from and Direction to Switchgear Building	Receptors	Grid Ref.
S08	Parc Cybi Spine Road	200 m to the north west	Road users within Parc Cybi allocated employment site	225718 380671
S09	Trefignath Burial Chamber, Parc Cybi	350 m to the north west	Visitors to heritage asset (promoted site with access permitted)	225844 380559
S10	Parc Cybi allocated employment site, between the A55 and footpath/ cyclepath	230 m to the south east	Walkers/cyclists using the route through Parc Cybi allocated employment site, Road users travelling along A55	225482 381030
S11	Tŷ-Mawr Standing Stone, Parc Cybi	270 m to the south east	Visitors to heritage asset (promoted site with access permitted)	225399 380963

24.5.5. Other Developments in the Baseline Environment

144. At the time of writing, there was one other operational tidal development within the 15 km Study Area, the Minesto Holyhead Deep tidal turbine. As present this comprises a pre-commercial demonstration project (i.e. testing the operation of the tidal energy device prior to larger scale commercial deployment), with a single tidal energy device. This device operates below the water but is linked to a floating buoy. It is positioned approximately 6.5 km from the closest part of the coastline, to the west of the MDZ. At the time of undertaking the fieldwork this device was not in operation and therefore no components of the Minesto project are present in the baseline photography. As this project is already part of the current seascape, landscape and visual baseline resource it has been considered as an integral part of the baseline within the main assessment of seascape, landscape and visual effects in **Section 24.6**. Other tidal developments or other similar proposals within the Study Area that are within the planning system but yet to be determined have been considered separately when gauging the cumulative impact of the Project in addition to these as-yet-undetermined applications, in the assessment of cumulative effects in **Section 24.6.7**.

145. The location of the Minesto Holyhead Deep tidal device relative to the Project is illustrated in **Figure 26-4-1** (**Volume II**).

24.6. IMPACT ASSESSMENT

24.6.1. Overview of Potential Impacts

146. Following the methodology described in **Section 24.4** above, the Project has the potential to affect a wide range of seascape, landscape and visual receptors identified in the baseline assessment. These include the perception of seascape and landscape character and changes to views, with resultant effects on visual amenity. The Project incorporates a range of measures

to reduce these potential effects where practicable and these are described below. In addition, a number of additional mitigation measures could be considered that would also help to reduce potential effects on seascape, landscape and visual receptors. The realistic worst case scenario, on which the impact assessment is based, is set out in **Section 24.6.3**.

24.6.2. Mitigation

24.6.2.1. Embedded Mitigation Measures

147. Consideration of seascape, landscape and visual effects of the proposed Project have been one of several technical aspects considered as part of the design evolution, which is described in detail in **Chapter 3, Site Selection and Consideration of Alternatives**. The design of the Project has been developed to reduce effects on landscape and visual receptors where possible. This approach has been informed by the consultation with IoACC and NRW. The mitigation measures applicable to potential seascape, landscape and visual effects are also included in **Document MOR/RHDHV/DOC/0074, Landscape Management Plan**. The following provides a summary of the measures that have been applied as result of the design iteration to the key components of the Project:

- Offshore elements within the MDZ:
  - No visually prominent tidal energy devices would be placed in the northern part of the MDZ (as indicated in **Figures 4-2, 4-3 and 4-4, Volume II**) to reduce potential landscape and visual effects in relation to seascape/landscape and visual receptors to the north west of Holyhead Mountain;
  - A minimum separation distance of 1 km would be applied from the coastline for visually prominent devices, helping to increase the separation distance between such structures from the coastline;
  - Minimising floating elements elsewhere within sub-zones to help ensure the composition of offshore elements is as simple as possible.
- Landfall Substation:
  - Selecting a recessive location in the landscape, in a relatively low lying position and using the landform to help integrate the substation (cutting into the valley side rather than building a platform out);
  - Arrangement of plant and equipment within three buildings, resulting in a collection of buildings that break up the scale of the development and create a form and massing that is comparable with local agricultural buildings;
  - Using colours and materials (including natural materials) that are consistent with the vernacular associated with agricultural buildings, and are recessive in the local context;
  - Using the buildings to define the boundaries of the substation, reducing the requirement for security fencing;
  - Using stone walls and stock proof fencing as part of new boundaries;

- Considering limited application of planting to help integrate the substation, acknowledging the limitations associated with this in the open and exposed coastal landscape; and
- Minimising the use of external lighting in this rural location.

- Grid Connection Substation:
  - Positioning of the substation in a location where industrial structures form an established part of the baseline context, and where established vegetation surrounding the site provides effective visual enclosure.
- Switchgear Building:
  - Positioning of this element within an allocated employment site, adjacent to an existing substation and where surrounding development will be comparable in form, massing and appearance.
- Cable connections:
  - Use of underground cabling to provide the connections between all Project elements, avoiding the need for overhead cables;
  - Routing the underground cable within the local road corridors to minimise potential disruption to field boundaries; and
  - Reinstatement of the ground and landscape features following construction (also described below).

148. After construction has been completed, all temporary structures, machinery and equipment would be removed from the compounds. Construction compounds and the onshore cable corridor would be restored as close as possible to a condition and land use that is consistent with the immediate context. Any disruption to field boundaries would be restored.

149. Site restoration would be programmed, managed and carried out to allow restoration of disturbed areas as early as possible and in a progressive manner. A restoration plan would be agreed with IoACC and NRW.

24.6.2.2. Additional Mitigation Measures

150. The principal means of mitigation with regard to the offshore development is through the careful consideration of the siting, design and layout of the devices, and ancillary infrastructure, in relation to seascape, landscape and visual receptors as described in **Section 24.6.2**.

151. In addition to the above measures, further consideration could be given to mitigation at the detailed design stage, through consultation with IoACC and NRW in relation to the discharge of appropriate conditions on the consent. Such measures could include:

- The colour of the tidal devices;
- The navigational lighting that is required;
- The layout configurations of tidal devices within arrays e.g. curved rows of devices or irregular placement;

- Detailed design and materials selection for the substations;
- Planting proposals around the substation sites; and
- Detailed agreements over the types/design of field boundaries to be instated following the construction phase e.g. stone walls, cloddiau (hedge banks) or hedgerows.

152. Note that measures that would have the potential to affect navigational safety (such as colouring and lighting) would also require consultation and agreement with the relevant navigation authorities and consultees.

24.6.3. Worst Case Scenario

153. The assessment covers the construction, operational and decommissioning phases of the Project, as described in **Chapter 4, Project Description**.

154. The PDE has been influenced through the assessment process and consultation with NRW and IoACC. This approach means that the PDE being assessed within the SLVIA does not reflect a theoretical worst case, but incorporates specific measures that would reduce potential seascape, landscape and visual effects. Such measures are particularly applicable to the offshore components of the Project and the Landfall Substation. The approach to the PDE, together with further detail on the Project components are described in **Chapter 4, Project Description**.

155. In addition, a concise appraisal of a 40MW array of tidal energy devices is included in **Appendix 24.5**. This has been prepared recognising that the implementation of the Project would take place incrementally and therefore the seascape, landscape and visual effects would change over time. The approach to this appraisal is set out in the appendix.

156. The main operational elements of the Project, with the potential to affect seascape, landscape and visual receptors are summarised as follows:

- Tidal devices, deployed in multiple arrays within the MDZ, to a maximum installed capacity of 240 MW;
- Up to eight surface emergent electrical hubs;
- Cardinal and special marker buoys;
- Potential for up to five environmental monitoring platforms within the MDZ
- Inter-array cables within the MDZ;
- Export cables and export cable tails to the transition pits/bays;
- Landfall Substation;
- Grid Connection Substation;
- Switchgear Building; and
- Onshore buried cable installed between the Landfall and Grid Connection Substations.

157. There are different potential options for hubs that connect a number of individual devices. As set out in **Chapter 4, Project Description** the anticipated scenarios include up to 120 seabed

mounted electrical hubs, up to 93 floating surface emergent electrical hubs or up to eight seabed mounted, surface emergent electrical hubs. The eight seabed mounted, surface emergent hubs would comprise the largest and tallest of these structures, and most likely to be visible across the study area. Therefore, this scenario forms the worst case scenario for the SLVIA.

158. As worst case it is assumed that the tidal energy devices, electrical hubs and marker buoys will be lit at night, in conformance with guidance from Trinity House and the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) (IALA Recommendation O-139 on The Marking of Man-Made Offshore Structures, Edition 2, December 2013) to ensure that they are conspicuous to marine traffic. It is likely that yellow colouring will be a worst case in terms of the appearance of any surface emergent elements and the colours used in the photomontages included in the assessment reflect the guidance provided in IALA Recommendation E-108 on The Surface Colours used as Visual Signals on Aids to Navigation, Edition 3, May 2013. This colouring may be varied and agreed through consultation, but for the purpose of the SLVIA it is assumed that all above water elements of structures would be yellow.

159. The overall programmed life of the Project is 37 years, which includes construction, commissioning, operation, repowering and decommissioning. The assessment concentrates on the operational phase of the development, which will be between 25 and 35 years. During the operational phase, maintenance periods are expected to be frequent and short in duration (with a worst case of five hours per month assumed per device). The maintenance vessels may be relatively large but are expected to be limited in number at any one time. Given that the PDE being assessed incorporates numerous surface emergent tidal devices across the MDZ, in a seascape context where marine vessels are frequently seen, it is anticipated that such maintenance activities will be comparable with the visual effects associated with the arrays of devices. Therefore, the focus is on the appearance of the operational structures. The assessment will also consider the construction, repowering and decommissioning phases, although these will be temporary, and the focus will be on operational elements.

160. The wireframes and photomontages show the appearance of the full deployment of tidal energy devices included in the 240MW scenario that form the PDE for the SLVIA.

161. The cable landfall will be located within the bay on the western side of Holy Island known as Abraham's Bosom. The preferred method for installing the landfall cable is through the use of horizontal directional drilling (HDD), meaning there would be no visible disturbance to the landscape during construction, or visible infrastructure during the operational phase. However, should HDD not be feasible an alternative approach (and in the context of the SLVIA a likely worst case) would be open cut trenching, i.e. cutting shallow trenches across the beach and pinning and/or ducting the subsea cable, within a split-pipe to the cliff face. The cables crossing the intertidal area may require protection using rock bags, concrete mattresses or similar. For the purpose of the SLVIA, the worst case option of open cut trenching is assumed.

162. From the cliff top the cables would be buried to the transition pits/bays. The nine transition pits/bays would all be buried, with the only surface elements comprising nine manhole covers. There would be physical disturbance to the field (currently grassland). This would be a visible change in the landscape during the construction phase, but it would relate to short term activities and the field would be restored to the pre-existing condition post construction. The presence of

the transition pits/bays is likely to influence the long-term use of the land, in that the buried infrastructure is likely to restrict or prevent cultivation. However, pasture/grassland is the prevalent agricultural land use in the local landscape and therefore use of this field for pasture would be consistent with this context.

163. The Landfall Substation would be positioned within a single field to the adjacent to South Stack Road to the west of Tŷ-Mawr Farm (see **Figure 1-2, Volume II**). It would comprise three separate buildings of differing footprints, all up to approximately 7 m high. There would also be a separate transformer compound and external working areas and parking. A temporary construction compound would also be created to the south west of the Landfall Substation.

164. The Grid Connection Substation would be located within the land that forms part of the former Anglesey Aluminium works to the north east of Holy Island, south east of Holyhead (see **Figure 1-2, Volume II**). The operational substation would have an overall footprint of approximately 104 m by 62 m. It would contain a range of external plant and equipment, together with four buildings. The maximum height of the proposed structures within the Grid Connection Substation would be 9 m.

165. The Switchgear Building would comprise a single building approximately 9.4 m by 5 m, with a maximum height of 4 m. It would be positioned to the north east of the existing substation within the Parc Cybi allocated employment site (allocated in the Anglesey and Gwynedd Joint Local Development Pan 2011 – 2026, 31st July 2017), separated from this existing infrastructure by part of the internal road layout (see **Figure 1-2, Volume II**).

166. All onshore cables would be buried. Between the landfall point and the transition pits/bays the cables would cross the fields adjacent to South Stack Road. Between the Landfall Substation and the Grid Connection Substation the cable route predominately follows the local road network. It is expected that the buried cable would generally be positioned within the road corridor. In certain circumstances it may be necessary to deviate from this approach by placing he cable within adjacent fields. The need to place specific sections of cable within fields would be identified and discussed with IoACC, including any necessary reinstatement of vegetation and boundary features, prior to construction. The key exceptions to this are where it would cross the land around Holyhead Leisure Centre and alongside the A55 where the cable route would cross the A55.

24.6.4. Potential Impacts During Construction

24.6.4.1. Offshore Project Components

167. Within the MDZ there would be changes to the seabed through the construction of foundations associated with the tidal devices. In addition, cables would be laid on the seabed both within the MDZ and the offshore export cable corridor. However, these changes would not be visible from above the sea surface and would not have a significant impact on features that conspicuously contribute to character or visual amenity. The potential effects on the marine environment are considered in the relevant detailed assessment chapters within this ES.

168. During installation it is anticipated that a range of vessels may be required. The uncertainty around the types of tidal devices that may be installed means the installation techniques and

equipment are not known. However, it is expected that installation would require the use of vessels such as dynamic positioning (DP) and heavy lift vessels. It is also anticipated that during installation the vessels would need to work 24 hours a day and would require flood lighting to permit safe night time working. These activities are anticipated to take place over a minimum period of ten years, although not continuously. Such impacts would be temporary, overlap with the operational phase of the Project and be reversible on completion of the installation.

169. There are no measures proposed to mitigate the potential seascape, landscape and visual effects associated with the construction phase for offshore elements. Direct effects on the seascape fabric and character as a result of the offshore site are predicted to be very limited.

170. The nature of disturbance to the seascape as a consequence of the offshore components, together with the relatively short duration of the effects and would ensure that the effects of the construction phase on the seascape fabric, character and visual amenity of the locality would be limited. Due to the temporary nature of the offshore construction activities and the overlap with the operational phase, this phase has not been considered in any further detail in this assessment. The impacts of the development components likely to give rise to significant effects during the operational phase are considered in **Section 24.6.5**.

24.6.4.2. Onshore Project Components

171. The onshore cable routing has potential to have a direct/physical temporary effect on seascape/landscape features. As outlined in **Chapter 4, Project Description**, the landfall cables would either be installed in a trench across the beach then pinned to the cliff face within a split pipe or horizontally directionally drilled through the underlying rock. As worst case for the SLVIA, is it assumed the former of these approaches would be adopted. This work would require temporary construction/laydown areas within the field at the top of the cliffs.

172. From the top of the cliffs to the transition pits/bays the cables would be buried in trenches that cross the fields and South Stack Road. The key physical temporary landscape impacts associated with the cable route are likely to arise as result of the trenching work across agricultural land (grassland), including potential disruption to stone wall field boundaries. There is also some scrub cover within the fields and adjacent to the surrounding stone walls, which would also be removed during the construction activities. The construction of the transition pits/bays would require excavation of the field (agricultural grassland) to the east of South Stack Road. Subsequently the cables to the Landfall Substation would be buried within the fields, again with removal of agricultural grassland and potential disruption to the field boundaries. The land affected would be reinstated afterwards and stone walls would be reconstructed on the same alignment. No notable landscape features or elements are expected to be lost following the construction phase due to the reinstatement work that would take place.

173. The construction of the Landfall Substation would require excavation of the field in which it would be located, to the east of Tŷ Mawr Farm, to create a level platform for development. This would result in some vegetation loss and alteration of the landform within the footprint, which would continue into the operational phase. There would also be a temporary construction compound created within the field to the south west of the Landfall Substation site. This land would be reinstated to agricultural uses following the construction of the substation.

174. The cable route between the proposed Landfall Substation and the proposed Grid Connection Substations would be positioned within the local road network wherever possible. There would be temporary disruption to existing road surface during the construction phase. However, this would be reinstated following construction and this approach would limit disruption to surrounding fields and the associated boundary features. In certain circumstances it may be necessary to deviate from this approach by placing he cable within adjacent fields. The need to place specific sections of cable within fields would be identified and discussed with IoACC, including any necessary reinstatement of vegetation and boundary features, prior to construction. The key exceptions to this are where it would cross the land around Holyhead Leisure Centre and alongside the A55 where the cable route would cross the A55. To the west and south west of Holyhead Leisure Centre the cable would cross agricultural land, including potential disruption to existing field boundaries before entering the land occupied by the leisure centre and following the internal road layout.

175. Between the Switchgear Building and the Grid Connection Substation there would be potential loss of grassland and scrub along the cable route and at the position of the working areas for horizontal directional drilling under the A55 and railway line. No notable landscape features or elements are expected to be lost as result of this work and the land would be reinstated following the construction phase.

176. The Switchgear Building would occupy former agricultural land (grassland) within the Parc Cybi allocated employment site. There would be localised loss of vegetation as a result of this component of the Project. However, this loss is within a wider allocated employment site which is undergoing incremental development and no notable landscape features or elements would be lost.

177. The Grid Connection Substation would occupy a combination of previously developed land and grassland within an existing industrial development. There would be localised loss of vegetation as a result of this component of the Project. However, no notable landscape features or elements would be lost.

178. The key mitigation of effects associated with the construction phase relate to the effective restoration of disturbed land and reinstatement of landscape features, particularly field boundaries, following this work. Other mitigation measures, associated with the design of the substations are more applicable to the longer-term effects during the operational phase, and are described in **Section 24.6.2** of this chapter.

179. The relatively small extent of the disturbance, the short duration of the effects and the reinstatement of working areas would ensure that the effects of the construction phase on the landscape fabric, character and visual amenity of the locality would be limited. Due to the temporary nature and limited extent of the actual construction activities, the construction phase has not been considered in any further detail in this assessment. The impacts of the Project components likely to give rise to significant effects during the operational phase are considered in detail in the following sections. The predicted impacts on landscape fabric that would occur as a consequence of the Project are also assessed in relation to the operational phase of the Project.

24.6.5. Potential Impacts During Operation (including Repowering)

180. This section comprises the assessment of the effects on the landscape resource and visual amenity arising from offshore and onshore components of the Project, focussing on the operational phase. Repowering of devices or arrays may occur during the operational phase of the Project. This would comprise the removal of a tidal energy device or devices and associated elements, followed by potential installation of a new device or devices. A more detailed description of repowering is provided in **Chapter 4, Project Description**. In relation to the SLVIA it is anticipated that repowering activities would be intermittent and seen in the context of the tidal energy devices that form part of the PDE. Repowering activities are also likely to take place in specific parts of the MDZ rather than throughout it at any one time. The predicted effects are based on the realistic PDE, as set out in **Section 24.6.2**.

181. The following assessment of landscape effects addresses:

- Effects on landscape character (including designations); and
- Effects on visual amenity.

182. Seascape/landscape character and designations can be affected physically by a development. This will normally occur where it lies within and causes changes to the fabric of the landscape through the introduction of new features or the removal of existing ones. In addition, changes to the seascape/landscape from development also occur in relation to how the existing character and designations are perceived, through people's visual experience of them being affected. These changes in perception of character, quality or value can affect both the areas and designations that a development may lie within, as well as those surrounding it within the Study Area.

24.6.5.1. General Appraisal of Visibility within the Study Area

183. People's perceptions of the effects of a development on seascape/landscape character and designated areas, together with potential effects on visual amenity are closely related to the potential extent and nature of visibility of the key elements. Whilst effects on seascape/landscape character do not directly relate to visibility, it is typically the case that if the predicted visibility of a proposed development is very restricted it is likely that the corresponding effects on the perception of landscape character will also be limited. An overview of the predicted visibility of the development site (including potential tidal devices) is provided below.

184. The basis on which the ZTVs for the various components of the Project have been generated is explained in **Section 24.4.3** of this chapter.

185. Analysis of the ZTVs for the MDZ (**Figures 24-2-1**, **24-2-2a** and **24-2-2b**, **Volume II**) identifies that theoretical visibility of the offshore elements within the MDZ is focussed along the western edges of Holy Island and the Isle of Anglesey. This concentration of visibility on the coastline is more apparent in **Figures 24-2-2a** and **24-2-2b** (**Volume II**). However, the coastline does not truncate potential views and these do extend to locations further inland. Key themes identified include:

- Around Holy Island theoretical visibility generally extend up to 2 km inland from the coastline, becoming increasingly fragmented with distance from the coastline. Coastal and onshore visibility occurs from north of Holyhead, Holyhead Mountain and west facing slopes and coastline in the vicinity of Rhoscolyn Head.
- To the south of Holy Island there is a notable difference between the more general ZTV for the MDZ and the ZTV for the PDE. Whilst the ZTV for the MDZ suggests theoretical visibility from Rhosneigr to Ynys Meibion (further south), the ZTV for the PDE identifies almost no visibility (the exception being at Barclodiad y Gawres).
- In relation to north west Anglesey theoretical visibility generally extends along the coastline from Valley to Carmel Head and The Skerries. However, again there is a notable difference between the ZTV for the MDZ and the ZTV for the PDE, with the latter showing much more limited visibility, particularly from inland areas.
- The ZTV demonstrates that the offshore components of the Project would be visible from vessels on the sea in all directions.

186. The ZTV for the Landfall Substation shows theoretical visibility would be concentrated within the valley between the southern slopes of Holyhead Mountain and Penrhosfeilw. The ZTV suggests there would be visibility of the Landfall Substation from Holyhead, however the built form of the settlement would typically prevent such views. The pattern of visibility extends across the Irish Sea to the south west and also part of the Isle of Anglesey to the north east. However, from such locations the intervening distance, relative scale of the change and context of views means any potential change and related effects would be very limited.

187. The ZTV for the Grid Connection Substation shows extensive theoretical visibility based on bare ground. However, this is considered to be unrepresentative of likely actual visibility. The site is surrounded to the north, north east and south west by woodland and industrial buildings lie to the north west. The aluminium works is no longer operational, but it is proposed to retain this site for employment uses, meaning any changes to these buildings are still likely to provide restrictions to the visibility of this substation. The main direction from which this substation is likely to be seen is to the south, but vegetation alongside the railway and A55, together with vegetation in the wider landscape is predicted to restrict or prevent such views.

188. The ZTV for the Switchgear Building is much less extensive compared with the Grid Connection Substation, which is a reflection of the small size of this Project component. The ZTV shows theoretical visibility would be concentrated to the south of Holyhead, but there are fragmented areas of potential visibility beyond this, including from Holyhead Mountain. However, in reality the small size of this structure and its location within the Parc Cybi allocated employment site, mean the visual prominence of this substation would be very limited.

24.6.5.2. Assessment of Potential Effects on Seascape/Landscape Character

189. This section assesses effects upon seascape/landscape character within the Study Area. The key characteristics, value, susceptibility and sensitivity of the LCAs identified as having potential to be affected by the Project are set out in **Appendix 24.2** (**Volume III**). The sensitivity of each LCA is derived by considering its susceptibility to change of the nature associated with the Project and its value as set out in the methodology included in **Appendix 24.1** (**Volume III**). The

findings of the viewpoint assessment set out in **Appendix 24.3** (**Volume III**) have been used to inform the assessment of potential effects on SCAs/LCAs.

190. Early evaluation of the potential effects on seascape/landscape character, together with the viewpoint assessment identified that character areas beyond approximately 5 km of the Project would experience limited change. This is largely as a result of the relatively low height of the structures that form part of the Project. In order to ensure the SLVIA is concise the **Table 24-10** below summarises the character areas where the potential effects are predicted to be very limited, including justification for this. LCA 18 Valley Airfield Environs has been excluded from further assessment due to the limited predicted visibility of the offshore components and the separation distance from the onshore components of the Project.

Table 24-10 SCAs and LCAs where the Effects of the Project are Predicted to be Limited

SCA/LCA	Sensitivity to Change	Predicted Magnitude of Change and Justification	Potential Effect and Significance
SCA 9 – Cemlyn Bay	High	Negligible. The ZTVs indicate limited to no visibility from the land based part of this SCA. The separation distance from the MDZ is over 11 km and analysis of the closest viewpoint identifies that offshore components of the Project would result in a negligible change. The SCA is also over 11 km from any onshore components of the Project.	Minor/negligible (adverse) and not significant
SCA 12 – Inland Sea	High/medium	Negligible. This SCA is separated from the MDZ by Holy Island, resulting in very limited or no visibility in the ZTVs for the offshore elements. The SCA is much closer to the Grid Connection Substation and Switchgear Building (400 m to the Grid Connection Substation and 1.3 km to the Switchgear Building). However, intervening woodland between the SCA and these Project components would restrict or prevent potential visibility.	Negligible (adverse) and not significant
SCA 15 - Rhosneigr	High/medium	Negligible. The ZTVs indicate limited visibility from the land based part of this SCA, with the ZTV for the PDE showing almost no visibility. There would be some theoretical visibility from the seaward part of this SCA, but this would be at a distance of approximately 9.5 km. Two viewpoints are located within this SCE (Viewpoints 09 and 10), with the analysis of both these identifying a negligible magnitude of change. The SCA is also remote from any onshore components of the Project.	Minor/negligible (adverse) and not significant

SCA/LCA	Sensitivity to Change	Predicted Magnitude of Change and Justification	Potential Effect and Significance
SCA 30 – North West of Anglesey	High/medium	Slight. The SCA lies immediately to the north of the MDZ. The ZTV shows visibility of the offshore components throughout the SCA. However, the offshore viewpoints that provide an indication of how these offshore Project components would be perceived demonstrate that their relative scale would quickly diminish, meaning for much of this SCA they would form small components in an expansive seascape. The onshore components of the Project are remote from this SCA and separated by Holyhead Mountain or the town of Holyhead.	Moderate/minor (adverse) and not significant
SCA 32 – Caernafon Bay	High/medium	Slight/Negligible. This SCA is entirely offshore. The ZTV suggests considerable theoretical visibility, although this is likely to diminish towards the edge of the Study Area due to curvature of the earth. The intervening distance is approximately 6.5 km and review of the closest viewpoints, including Viewpoint 14 (selected to represent offshore receptors) identifies limited change.	Minor (adverse) and not significant
LCA 5 – North West Anglesey	Medium	Slight/negligible. This LCA covers a large part of north west Anglesey. Review of the ZTVs highlights a fragmented pattern of visibility, with a very limited pattern in the PDE specific ZTV, and a separation distance of over 8 km. There are no viewpoints within this LCA, but analysis of the closest locations assessed identifies that limited change is predicted to occur. The onshore components of the Project are closer, approximately 2.5 km to the Grid Connection Substation, but visibility of these would be restricted or prevented by intervening woodland.	Minor/negligible (adverse) and not significant
LCA 16 – Aberffraw	High	Negligible. This LCA lies towards the south eastern edge of the Study Area. Review of the ZTVs highlights a fragmented pattern of visibility for the MDZ, but no visibility for the PDE specific ZTV, and a separation distance of approximately 13.5 km. There are no viewpoints within this LCA, but analysis of the closest locations assessed identifies that very limited change is predicted to occur. The onshore components of the Project are also remote from this LCA (over 10 km).	Negligible (adverse) and not significant

SCA/LCA	Sensitivity to Change	Predicted Magnitude of Change and Justification	Potential Effect and Significance
LCA 17 – West Central Anglesey	Medium	Negligible. This LCA lies towards the eastern edge of the Study Area. Review of the ZTVs highlights a fragmented pattern of visibility for the MDZ, but no visibility for the PDE specific ZTV, and a separation distance of approximately 11 km. There are no viewpoints within this LCA, but analysis of the closest locations assessed identifies that very limited change is predicted to occur. The onshore components of the Project are also remote from this LCA (approximately 6 km).	Negligible (adverse) and not significant

24.6.5.2.1. SCA 10 – Carmel Head to Penrhyn

191. This SCA comprises the outer part of Holyhead Bay and the north west coastline of the Isle of Anglesey. It relates to the expansive Irish Sea to the west. The town and port of Holyhead, together with Holyhead mountain form a distinctive backdrop to the south. The landward part of this SCA lies within the Isle of Anglesey AONB, and the more northerly section of the coastline is also designated as Heritage Coast. The northern part of Holyhead Bay relates closely to these designations meaning this SCA is considered to be of national value.

192. The MDZ lies to the south west of the SCA, with the most north eastern edge of the MDZ lying within the SCA. Analysis of the ZTVs identifies that the offshore components of the Project would be seen, with increasing numbers of offshore structures visible further north within the SCA. From the landward part of the SCA, theoretical visibility would be limited in extent and the pattern of visibility is also likely to be quite fragmented (based on the PDE ZTV).

193. The tidal devices and other structures would comprise new man-made features in the sea to the west of Holy Island. They would be positioned to the right of Holyhead Mountain, which would provide a scaling comparison that would diminish the prominence of the proposed structures. In addition, the continual movement of the water would also serve to reduce their prominence. Human influences within Holyhead Bay, including Holyhead itself, would reduce the change associated with the introduction of new man-made structures. Whilst some of the navigation lighting associated with the Project would be seen the change associated with this would be very limited due to the existing sources of light that form the baseline in the SCA. Reviewing the daytime and night time viewpoints positioned within this SCA identifies that the predicted magnitude of visual change would be negligible or slight/negligible, helping to illustrate these points relating to scale and prominence. Parts of the SCA that are closer to the MDZ would experience greater change, but this would reduce quickly with increasing separation distance.

194. It is therefore considered that the overall change from the Project would be **slight/negligible**. As the sensitivity of this SCA is **high/medium**, the resulting overall effect would be **minor**, and **not significant**.

24.6.5.2.2. SCA 11 – Holyhead

195. This SCA comprises the inner part of Holyhead Bay and the land to the east, together with the port and town of Holyhead, including the harbour. It is strongly influenced by urbanising elements and is a complex and dynamic area both onshore and offshore. It is a visually enclosed SCA as a result of the surrounding landscape and headlands, with Holyhead Mountain forming a distinctive backdrop to the west. It is partly located within the Isle of Anglesey AONB, placing national value on part of this SCA. The sensitivity of the SCA to the Project is considered to be medium.

196. The MDZ lies to the west of the SCA and is largely separated from it by Holy Island. Analysis of the ZTVs identifies offshore components of the Project would be seen, however the number of structure visible would be limited in number and the pattern of visibility is likely to be quite fragmented (based on the PDE ZTV). The shortest distance between the SCA and the MDZ is approximately 2.5 km, although the closest part is the eastern lower slopes of Holyhead Mountain.

197. Based on the PDE ZTV the structures that would be discernible from this SCA would be the northern most electrical hubs, which would comprise new man-made features in the sea beyond Holyhead. Their scale would be diminished by the relative height of Holyhead Mountain, and importantly it is a location where human influences and activities are a prevalent part of the baseline character. Whilst some of the navigation lighting associated with the Project would be seen the change associated with this would be limited due to the existing sources of light that form the baseline.

198. The Grid Connection Substation would be located within this SCA and the Switchgear Building would be almost adjacent to the west. The Grid Connection Substation would be located adjacent to existing industrial development which, together with woodland to the north and east would provide both a high degree of enclosure and a context that would greatly limit the scale of the change and also the extent of this change. The Switchgear Building would be a relatively small-scale element in the context of an emerging employment area and adjacent to an existing, much larger, substation.

199. It is therefore considered that the overall change from the Project in this SCA would be **slight**. As the sensitivity of this SCA is **medium**, the resulting overall effect would be **minor** (adverse), and **not significant**.

24.6.5.2.3. SCA 13 – Holyhead Mountain

200. The Holyhead Mountain SCA comprises the north west part of Holy Island and the adjacent coastal wasters to the north and north west. The land-based part of the SCA includes the rugged, elevated landform of Holyhead Mountain, the highest point on Holy Island and Anglesey, together with the distinctive coastal landforms of South Stack and Gogarth Bay. The nature of the land cover and limited development gives rise to a relatively remote and wild character, despite the relative proximity of Holyhead. The SCA is almost entirely within the Isle of Anglesey AONB and is largely designated as Heritage Coast, both of which place national value on this SCA. The sensitivity of the SCA to the Project is considered to be high.

201. The MDZ lies to the west of the SCA, with the shortest separation distance being approximately 500 m at South Stack. The ZTVs show theoretical visibility from a large proportion of the SCA, with the greatest number of structures visible from the slopes of Holyhead Mountain and coastal waters near South Stack.

202. The tidal devices and associated structures would introduce man-made features in the wider seascape. However, the prominence of the structures would be variable throughout this SCA. The main visible structures in the northern part of the MDZ would be three electrical hubs (together with navigation buoys and potentially monitoring platforms), which would relate more closely to Gogarth Bay. However, from other locations, particularly the south west facing slopes of Holyhead Mountain and near South Stack, a greater proportion of structures within the MDZ would be more prominent. Navigation lighting would also introduce new elements into a seascape with a largely dark baseline context. For the majority of the SCA the change associated with lighting and how this would alter the perception of seascape character would be experienced by few people.

203. The relative scale of this SCA, with particular reference to Holyhead Mountain, would help to restrict the change associated with proposed structures in the sea. However, this elevation also means that the composition of the arrays of devices and their extent would be readily discernible. The introduction of the tidal energy devices would not fundamentally alter the character of the SCA, but they would detract from certain perceptual qualities including wildness and remoteness. They would not prevent the expansive panoramic views over the Irish Sea that are experienced from this SCA but would clearly introduce new low level man-made structures within such views.

204. The substations that form part of the Project would also be seen from this SCA. However, these would all comprise small scale recessive elements due to their low-lying position, intervening distance, and the open expansive views in which they will be seen as well as, in the case of the Switchgear Building and Grid Connection Substation, the industrial and urban context in which they will be seen.

205. It is therefore considered that the overall change from the Project would be **medium**. The sensitivity of this SCA is **high**, therefore the resulting effect would be **major/moderate** (adverse) and **significant**.

24.6.5.2.4. SCA 14 – Rhoscolyn

206. The Rhoscolyn SCA comprises the majority of Holy Island and the adjacent coastal waters to the west and south (to the south of Holyhead Mountain and Holyhead. The land-based part of the SCA is a rural landscape with a predominately sparse and dispersed settlement pattern, the exception to this being at Trearddur. The landform is an open, rugged and low-lying, with a crenelated coastline of low cliffs. It is partly located within the Isle of Anglesey AONB and the more northerly section of the coastline is also designated as Heritage Coast, both of which place national value on part of this SCA. The sensitivity of the SCA to the Project is considered to be high/medium.

207. The MDZ lies to the west of the SCA, with the shortest separation distance being approximately 500 m at Penrhyn Mawr. The tidal devices would be seen as man-made features in the wider seascape. However, the prominence of the structures would be variable throughout this SCA. From a small area in the northern part of the SCA (between Penrhyn Mawr and Pen-las Rock, west and north west of Penrhosfeilw) the arrays of tidal energy devices and associated structures would form prominent elements. This would also be applicable at night when the navigation lighting would introduce new elements into a seascape with dark baseline context.

208. South of Penrhyn Mawr the relative scale of the offshore structures would diminish, partly due to increasing distance and also the way in which the proposed structures would be seen from this generally low lying SCA. Typically, the tidal devices would be seen as a small part of the large-scale, open character of the seascape and would be viewed as a minor addition in views in a westerly or north westerly direction. In addition, the navigation lighting would become less conspicuous further south within the SCA due to the increasing distance and the greater influence of existing light sources that form part of the baseline seascape character. This is particularly the case in the vicinity of Trearddur where the multiple sources of artificial light would reduce the change that would occur.

209. The structures within the MDZ would be theoretically visible from much of the coastal waters and coastline within the SCA. This pattern of visibility would become increasingly fragmented inland, which would limit the overall geographic extent of the effects. The crenelated character of the coastline would also limit theoretical visibility in places, e.g. at Porth Dafarch.

210. The Landfall Substation, Switchgear Building and the majority of the onshore cable route would be located within this SCA. For the most part the underground cable would be buried under the local road network. Following construction there would be no discernible change to the SCA, with the road surface being reinstated and any disturbance to landscape features or elements being restored (e.g. field surfaces and boundaries). The exception to this is potentially the landfall cables at the cliffs, which may be placed in shallow trenches (protected by rock bags, concrete mattresses or similar) and pinning the cables to the cliff face. Such changes would be perceived at a local scale within the SCA due to the enclosed nature of the bay. However, these elements would be discernible from locations in South Stack Cliffs Nature Reserve to the south (The Range), from locations offshore and more prominently from the beach itself. The scale of this specific change would be limited and similar would be the case for the extent of this change, but it would contrast with the natural state of the beach and cliffs.

211. The Switchgear Building would form a small-scale element within an area that forms part of an allocated employment site. It would be positioned adjacent to an existing substation and it is likely that the that surrounding land would be developed for employment uses over time. Overall the change that would be associated with this specific Project component in the context of both the current and emerging baseline means it would have very limited influence on the SCA.

212. The Landfall Substation would be a more prominent change in the landscape. The scale and configuration of the buildings would be comparable with local agricultural buildings. The various mitigation measures that have been incorporated into the design, including boundary treatments, lowering the base level and cutting the platform into the slope, and the proposed materials, would help to reduce the relative change. It would be located on relatively low lying

ground, limiting the extent of the potential effects and the prominence of the substation. It would result in a noticeable change at a very localised level, but beyond a distance of approximately 400 m it would form a relatively recessive element in the landscape.

213. The Project would result in some noticeable changes, but these would be localised and within many parts of the SCA the components of the Project would not be discernible. The most prominent components of the Project would be the offshore structures within the MDZ, with these contrasting with the undeveloped character of the northern most part of the SCA.

214. It is therefore considered that the overall change from the Project would be **medium**. The sensitivity of this SCA is **high/medium**, therefore the resulting effect would be **moderate** (adverse). As set out in the methodology (**Appendix 24.1**, **Volume III**), moderate effects can be either significant or not significant based on the judgements that lead to the predicted magnitude of change. In this instance it is considered this would constitute a **significant** effect, primarily due the scale of the changes associated with the tidal energy devices in the northern most part of the SCA.

24.6.5.2.5. SCA 31 – West of Anglesey

215. Almost the entire MDZ is located within this SCA. It lies to the west of Holy Island and comprises open sea. It is characterised by high energy water due to the strong tidal currents and wave activity. Primary uses of the SCA include fishing and recreation. Holyhead Mountain forms a distinctive backdrop and the entire coastline to the east forms part of the Isle of Anglesey AONB, and part of it is also designated at Heritage Coast. However, the SCA is not within the AONB. The sensitivity of the SCA to the Project is considered to be medium.

216. Analysis of the ZTVs identifies that offshore components of the Project would be seen throughout this SCA which entirely comprises open water.

217. The tidal devices and other structures would comprise and introduce distinctive man-made features in the sea. The lighting of the structures would be visible in the eastern part of the SCA, which is currently devoid of fixed light sources, although does have more distant visibility of land-based sources of night time lighting, notably South Stack lighthouse. The proposed structures would be positioned to the left of or in front of the landscape to the east (including Holyhead Mountain). This would provide a scaling comparison that would diminish the prominence of the proposed structures. In addition, the continual movement of the water would also serve to reduce their prominence. One viewpoint (Viewpoint 14) is positioned within this SCA, with a predicted magnitude of change of slight/negligible, helping to illustrate these points relating to scale and prominence. This viewpoint is relatively close to the MDZ (approximately 2.5 km) and the potential change would reduce considerably with greater separation distance. Conversely the change would increase closer to the MDZ, also acknowledging that the tidal energy devices would be located within this SCA.

218. There would be potential for localised significant effect on this SCA but overall it is considered that the change from the Project would be **medium/slight**. As the sensitivity of this SCA is **medium**, the resulting effect would be **moderate**. In this instance it is considered this effect be **not significant**. This primarily due to the size of the SCA and the scale of the changes

associated with the tidal energy devices, which would occupy a relatively small proportion of the SCA. The tidal energy devices would form prominent structures within the eastern part of the SCA. However, beyond this the change would quickly diminish.

Table 24-11 Summary of Effects on SCAs most likely to be Adversely Affected by the Project

SCA/LCA	Sensitivity to Change	Predicted Magnitude of Change	Potential Effect and Significance
SCA 10 – Carmel Head to Penrhyn	High/medium	Slight/negligible	Minor (adverse) and not significant
SCA 11 – Holyhead	Medium	Slight	Minor (adverse) and not significant
SCA 13 – Holyhead Mountain	High	Medium	Major/moderate (adverse) and significant
SCA 14 – Rhoscolyn	High/medium	Slight	Moderate (adverse) and significant
SCA 31 – West of Anglesey	Medium	Medium/slight	Moderate (adverse) and not significant

24.6.5.3. Assessment of Effects on Landscape Designations

219. The following sections provide further analysis of the potential effects of the Project on designations that are relevant to the SLVIA. The above analysis in relation to seascape/landscape character has included consideration of designations in the evaluation of sensitivity. However, this analysis revisits the specific qualities of the designations, as identified in the relevant publications, to further analyse how the Project would influence these.

24.6.5.3.1. Isle Anglesey AONB and Heritage Coast

220. Much of the coastline within the Study Area lies within the Isle of Anglesey AONB. As set out in the evaluation of the relevant policy and legislation The Isle of Anglesey Area of Outstanding Natural Beauty Management Plan 2015 to 2020 identifies the special qualities of the AONB. In addition, there are two sections of Heritage Coast within the Study Area, both of which are coincidental with the AONB designation. There are no defined special qualities for the Heritage Coast although as they relate to the same areas of coastline some of the special qualities of the AONB are frequently common to both designations. The following sections set out how the Project would influence these special qualities.

24.6.5.3.1.1. Special Quality; Expansive Views/Seascapes – Evaluation:

221. The offshore elements of the Project would be visible in expansive views and seascapes, particularly from the west coastline of Holy Island. The open character of the coastline and, in the case of Holyhead Mountain, relative elevation frequently affords open, long distance views both along the coastline and over the Irish Sea.

222. The tidal devices would not prevent these views but would introduce a series of man-made elements to the seaward component. They would be seen in the context of other human elements (land and sea based) and as a part of an overall panorama.

223. The viewpoint assessment has considered a wide range of locations from which open and expansive views can be obtained within the AONB. Whist some significant visual effects have been identified from the closest part of the coastline (e.g. viewpoints 3, 4 and 6), in many instances the effects on visual amenity not predicted to be significant (e.g. viewpoints 7 to 12).

24.6.5.3.1.2. Special Quality; Peace and Tranquillity – Evaluation:

224. The settled character and tourism use of much of the coastline within the Study Area affects peace and tranquillity of part of the AONB. It is acknowledged that areas of seascape/landscape are peaceful, tranquil and dark skies also contribute to the AONB. This quality is generally more prevalent along the north west coastline of Holy Island (with the exception of the area around Trearddur) and the north west coast of the Isle of Anglesey.

225. The key potential effects of the Project would be through the introduction of new human elements in seaward views. Construction, repowering and decommissioning activities would be visible. The tidal devices potentially affect views from the AONB and the analysis of local character has identified the potential for significant effects from SCAs associated with the western side of Holy Island.

226. The assessment of potential effects in relation to **Noise and Vibration** is detailed in **Chapter 21** and provides an analysis of potential effects in relation to the construction, operation, repowering and decommissioning. This concludes that there are no significant adverse noise impacts, once embedded mitigation such as use of temporary hoarding during construction, is in place.

227. To comply with navigation and safety requirements, the offshore development area would be lit at night. The baseline environment at night varies along the coastline. In the vicinity of Holyhead and Trearddur there is a considerable amount of existing lighting, which collectively results in a degree of sky glow. Away from these settlements, light sources decrease considerably as population density reduces. Existing light sources still form part of the night time onshore context and offshore lights associated with shipping as well as South Stack Lighthouse, also contribute to this baseline. While shipping lanes are positioned some distance from the coastline, the associated lights are still visible from the coastline and contribute to the baseline character within the AONB.

228. Lighting would be required during construction, operation, repowering and decommissioning. Lighting associated with construction, repowering and decommissioning will be intermittent and reversible. Therefore, the potential effects associated with construction and decommissioning phases will be relatively ephemeral, which would limit the potential effects. The operational structures would be lit at night as would the cardinal or special mark buoys. The required specification for the lighting is expected to comprise flashing yellow and white lights with a visibility of not less than five nautical miles.

229. The navigation lights would be positioned within the sea, where there are relatively few existing sources, and these are typically transitory and further offshore than the MDZ (shipping). The key purpose of the lighting will be to ensure suitable horizontal illumination in order to highlight the presence of the MDZ to marine traffic. The number and intensity of the lights would make a

limited overall contribution in the night sky, but they would be more prominent in localised areas within 5km of the MDZ. As set out in the assessment of seascape character the lighting would contribute to the significant effects identified.

24.6.5.3.1.3. Islands Around Anglesey – Evaluation:

230. The key effects resulting from the Project relate to Holy Island. However, it is assumed that this special quality relates to smaller islands and islets around the coastline. The Project would not have any effects on these smaller islands and islets due to a combination of the predicted visibility of the Project and the intervening distance.

24.6.5.3.1.4. Broadleaved Woodlands – Evaluation:

231. No component of the Project would be positioned within or cross areas of broadleaved woodland within the AONB. Therefore, there would be no effect on this special quality.

24.6.5.3.1.5. Lowland Coastal Heath – Evaluation:

232. No elements of the Project would directly affect areas of lowland coastal heath. Therefore, there would be no effect on this on this special quality.

24.6.5.3.1.6. Species Rich Roadside Verges – Evaluation:

233. The onshore cable route would have direct, localised effects on road verges, where they are crossed. As the majority of the onshore cable would be buried beneath the road itself the disturbance to the roadside verges would be very limited. In certain circumstances it may be necessary to deviate from this approach by placing he cable within adjacent fields. The need to place specific sections of cable within fields would be identified and discussed with IoACC. Following completion of the construction phase all areas of disturbed ground, including roadside verges, would be restored. The verges would be seeded with an appropriate species mix agreed with the IoACC and NRW to ensure that this special quality is not adversely affected.

24.6.5.3.1.7. Ecologically Important Coastal and Wetland Habitats (including Rocky Shores, Mudflats and Estuaries, Saltmarshes, Beaches and Dunes) – Evaluation:

234. The benthic and intertidal ecological assessment, included in Chapter 9 identifies that the majority of potential impacts to the benthic and intertidal ecology throughout the various phases of the development are likely to be of minor adverse significance, even when assessed against the worse-case scenario.

24.6.5.3.1.8. Built Environment including Conservation Areas and Listed Buildings – Evaluation:

235. The SLVIA has evaluated the potential effects on Conservation Areas in the Study Area, which include three parts of Holyhead and part of Bodedern village. The assessment of potential effects on the character of these settlements has identified that none of the components of the Project would have a significant effect on any of the Conservation Areas. Such effects are described in more detail below.

236. **Chapter 20, Onshore Archaeology and Cultural Heritage** has assessed the potential effects of the Project on heritage assets within the area surrounding the Project. This concludes that the residual effects on heritage assets would not be significant. There is potential for buried heritage assets to be disturbed or removed during the construction phase of the Project. This would be managed through appropriate mitigation including fieldwork, geophysical surveys and trial trenching.

24.6.5.3.1.9. Archaeology and Ancient Monuments/ Historic Landscapes, Parks and Gardens – Evaluation:

237. As set out above Chapter 20 has assessed the potential effects of the Project on key heritage assets. This concludes the effects on heritage assets are predicted to be limited. In addition, the potential for effects on buried archaeology during the construction phase would be managed through the implementation of appropriate mitigation measures.

238. In addition, the SLVIA has evaluated the potential effects on registered parks and gardens in the Study Area. One registered park and garden has been identified within the Study Area: Carreglwyd, near Llanfaethlu, positioned towards the north west edge of the Isle of Anglesey. The assessment of potential effects has identified that the Project would not have a significant effect on this Registered Park and Garden and this is described in more detail below.

24.6.5.3.1.10. Rural Agricultural/Coastal Communities – Evaluation:

239. **Chapter 25, Socio-Economics, Tourism and Recreation** concludes that the Project would bring benefits to the local communities through the investment and employment opportunities it would create. The socio-economic assessment also highlights the potential positive effects that would result from the energy generated by the Project, including energy security and the opportunities for reducing carbon emissions.

24.6.5.3.1.11. Welsh Language – Evaluation:

240. The Project would not affect this special quality. Potential effects of the Project on the Welsh Language are described in **Chapter 25, Socio-Economics, Tourism and Recreation**.

24.6.5.3.1.12. Soil, Air and Water Quality – Evaluation:

241. The Project is not predicted to have any significant adverse effects on soil, air or water quality. Therefore, there would be no effect on this special quality. A detailed evaluation of potential effects of the Project is set out in **Chapter 17, Water Resources and Flood Risk**, **Chapter 18, Ground Conditions and Contamination**, and **Chapter 22, Air Quality**.

24.6.5.3.1.13. Public Rights of Way Network – Evaluation:

242. The Project would not have any permanent direct effects on any Public Right of Way (PRoW), i.e. following the construction phase. No temporary or permanent closures to PRoW are proposed by the Project, as described in **Chapter 25, Socio-Economics, Tourism and Recreation**. It would be seen from numerous paths along the coastline, but the visibility and relative prominence would vary due to landform, vegetation and built form. The viewpoint

assessment identifies that there are certain locations where significant effects are predicted e.g. from the coastline between Penrhyn Mawr and South Stack. However, in the wider Study Area, the potential visual effects associated with the development site are not predicted to be significant, with the key contributory factors being the distance to the development site and the relative scale of the tidal devices compared with existing elements of the seascape/landscape.

24.6.5.3.1.14. Accessible Land and Water – Evaluation:

243. The Project would have no adverse effects on this special quality. Potential elements of improvement such as improved access to the shore at landfall would be subject to the detail of the works associated with the landfall cable and the restoration following the construction phase. It is envisaged this detail would be addressed through conditions should the Project be consented.

24.6.5.3.1.15. Summary of Potential Effects on the Isle of Anglesey AONB and Heritage Coast

244. The offshore elements of the Project would not have any physical effects on the AONB. There would be some direct effects within a small part of the AONB and on one section of Heritage Coast as result of the onshore components of the Project, the most notable being the Landfall Substation and potential for trenched cables across the beach and pinning of cable to the cliff face at the landfall point.

245. The overall pattern of visibility of the Project in the context of the AONB as a whole would be limited, and any changes would be associated with a relatively small part of the designation.

246. The potential impacts in relation to the perception of the AONB and Heritage Coast are consistent with the analysis of impacts on landscape character. The offshore elements of the Project would contrast with the relatively remote parts of the AONB and section of Heritage Coast and the greatest potential effects would occur around Holyhead Mountain and the coastline between South Stack and Penrhyn Mawr.

247. The greatest effects would be in relation to views to and from the coastline and the influence of the tidal devices on these, with the offshore elements of the Project introducing new man-made elements positioned off the coastline. The appearance of these structures, their colouring and lighting would have an adverse impact on these designations. However, the scale of the receiving seascape/landscape and the associated views are large and would help to accommodate the Project. Following the operational period all readily visible elements would be removed and the effects would be reversed.

248. While some localised significant effects are predicted in relation to the AONB, overall it is anticipated that these impacts will not be significant in relation to this designation as a whole.

249. The Heritage Coast designations apply to shorter sections of coastline. The Heritage Coast that relates to north west Anglesey is more remote from all Project components. The closest part of this Heritage Coast is over 9.5 km from the Project. This separation distance means the relative scale of the tidal energy devices would be limited and the potential effects on seascape character are not predicted to be significant. This is described in more detail in relation to SCA 10 – Carmel Had to Penrhyn, **Section 24.6.5.2.1** above. However, the section of Heritage Coast

that is associated with north west Holy Island is immediately to east of the MDZ. This proximity and the extent of the Heritage Coast that would be affected means the Project would result in significant effects, and the nature of these effects are described in more detail in relation to the applicable SCAs (SCA 13 – Holyhead Mountain and SCA 14 – Rhoscolyn), as detailed earlier in **Sections 24.6.5.2.3** and **24.6.5.2.4** above.

24.6.5.3.2. Special Landscape Areas

There is one SLA within the Study Area. This relates to Mynydd Mechell in the north west part of mainland Anglesey. The SLA is positioned inland from the coastline (4.5 km from the west coast and 3 km from the north coast). The shortest distance between the MDZ and the SLA is approximately 14 km, and the closest substation component is over 11 km. Review of the ZTVs shows very limited relationship between the Project and this SLA, with the PDE ZTV for the offshore elements showing no theoretical visibility. Therefore, it is predicted that the Project would have no adverse effects on this landscape designation.

24.6.5.3.3. Conservation Areas

250. There are four Conservation Areas within the Study Area. Three of these relate to separate parts of Holyhead and a further Conservation Area lies within the village of Bodedern. There is very limited predicted visibility of the offshore components of the Project shown on the ZTVs and the onshore components would be relatively remote from these designations. Whilst the Grid Connection Substation and Switchgear Building would be theoretically visible from the Holyhead Mountain Conservation Area, the intervening distance would be over 3 km. In addition, these substations would be located in the context of urban development within Holyhead, including industrial structures on the Orthios site and the allocated employment site around the proposed Switchgear Building. Overall it is predicted that any effects on these Conservation Areas as a result of the Project would be very limited.

24.6.5.3.4. Registered Parks and Gardens

251. The only Registered Park and Garden within the Study Area is Carreglwyd (Llanfaethlu), positioned towards the north west edge of the Isle of Anglesey, approximately 1 km from the coastline. This lies approximately 10 km from the MDZ and 7.5 km from the closest onshore components of the Project. Given the separation distances from the Project it is predicted that there would be limited potential for adverse effects to occur in relation to this Registered Park and Garden.

24.6.5.4. Assessment of Potential Visual Effects

252. The following sections provide an assessment of the predicted visual effects that would be likely to arise from the Project during the operational phase. The visual effects of the Project within the Study Area are considered in respect of the main visual receptor groups identified, namely:

- Residents of settlements;
- Users of transport routes (including promoted cycle routes);
- Walkers on long distance routes, PRoW and Open Access Land; and

- Users of other recreational resources/visitor attractions.

253. Visual impacts have been assessed through review of the ZTVs (**Figures 24-2-1**, **24-2-2a**, **24-2-2b**, **24-2-3**, **24-2-4** and **24-2-5**, **Volume II**), field survey and the assessment of effects at the 31 agreed viewpoints.

254. **Appendix 24.3** (**Volume III**) contains the detailed viewpoint assessment for the Project. The viewpoints were selected to be representative of the main landscape and visual receptors in the Study Area. There are several viewpoints in close proximity to the Project and therefore the predicted effects at these locations should not be considered as indicative of the same level of effect across the whole Study Area. **Table 24-12** to **Table 24-16** below provides an overview of the viewpoint assessment.

Table 24-12 Visual Effects and Significance – Offshore Development Viewpoints

No	Viewpoint Name	Sensitivity	Magnitude of Change`	Visual effect	Nature of Effect (Adverse, Beneficial, Neutral	Significant/Not Significant
01	Summit of Holyhead Mountain	High	Medium	Major/Moderate	Adverse	Significant
02	Near Parliament House, North Stack	High	Medium to slight	Moderate	Adverse	Not significant
03	Car park at South Stack Light House	High	Substantial	Major	Adverse	Significant
04	Ellin's Tower, South Stack	High	Substantial	Major	Adverse	Significant
05	Cytiau'r Gwyddelod Scheduled Monument	High	Medium	Major/moderate	Adverse	Significant
06	South Stack Cliffs Nature Reserve/Penrhyn Mawr	High	Substantial	Major	Adverse	Significant
07	Porth Dafarch, Wales Coast Path	High	Slight to negligible	Moderate/minor	Adverse	Not significant
08	Ravens Point Road, Trearddur	High	Slight to negligible	Moderate/minor	Adverse	Not significant
		High/medium		Moderate/minor		
09	Rhoscolyn Head	High	Negligible	Minor	Adverse	Not significant
10	High Street Rhosneigr	High	Negligible	Minor	Adverse	Not significant
		High/medium		Minor		
11	Barclodiad y Gawres Scheduled Monument	High	Negligible	Minor	Adverse	Not significant
12	Coast Path beneath Penbrynyreglwys	High	Negligible	Minor	Adverse	Not significant
13	Route of Holyhead To Dublin Ferry	Medium	Slight	Moderate/minor	Adverse	Not significant
14	South West Extent of Project Area	High/medium	Slight to negligible	Moderate	Adverse	Not significant
		Medium		Minor		

Table 24-13 Visual Effects and Significance – Night Time Viewpoints

No	Viewpoint Name	Sensitivity	Magnitude of Change`	Visual effect	Nature of Effect (Adverse, Beneficial, Neutral	Significant/Not Significant
15	Car Park at South Stack Light House (night)	High	Substantial	Major	Adverse	Significant
16	Ellin's Tower South Stack (night)	High	Substantial	Major	Adverse	Significant
17	Promenade Trearddur Bay (night)	High	Slight to negligible	Moderate/minor	Adverse	Not significant
18	Ravens Point Rd, Trearddur (night)	High	Slight	Moderate	Adverse	Not significant
19	Swtan (night)	High	Negligible	Minor	Adverse	Not significant
20	Holyhead Breakwater (night)	Medium	Negligible	Minor	Adverse	Not significant

Table 24-14 Visual Effects and Significance – Landfall Substation Viewpoints

No	Viewpoint Name	Sensitivity	Magnitude of Change`	Visual effect	Nature of Effect (Adverse, Beneficial, Neutral	Significant/Not Significant
S01	South Stack Road nr. Tŷ-mawr Farm	High/medium	Medium	Moderate	Adverse	Not significant
S02	Junction between South Stack Road and road to Trearddur	High	Slight	Moderate	Adverse	Not significant
		High/medium		Moderate/minor		
S03	Henborth, South Stack Road	High	Negligible	Minor	Adverse	Not significant
		High/medium		Minor		
S04	Wales Coast Path/Isle of Anglesey Coast Path, adjacent to the road to Trearddur	High	Negligible	Minor	Adverse	Not significant
		High/medium		Minor		
S05	Southern slopes of Holyhead Mountain	High	Negligible	Minor	Adverse	Not significant

Table 24-15 Visual Effects and Significance –Grid Connection Substation Viewpoints

No	Viewpoint Name	Sensitivity	Magnitude of Change`	Visual effect	Nature of Effect (Adverse, Beneficial, Neutral	Significant/Not Significant
S06	A55 south of Orthios site	Medium/low	Slight	Negligible	Adverse	Not significant
S07	Industrial access road south west of Orthios site	Medium/low	Moderate to slight	Minor	Adverse	Not significant

Table 24-16 Visual Effects and Significance –Switchgear Building Viewpoints

No	Viewpoint Name	Sensitivity	Magnitude of Change`	Visual effect	Nature of Effect (Adverse, Beneficial, Neutral	Significant/Not Significant
S08	Parc Cybi Spine Road	Medium/low	Negligible	Minor	Adverse	Not significant
S09	Trefignath Burial Chamber Parc Cybi	Medium	Negligible	Minor	Adverse	Not significant
S10	Parc Cybi allocated employment site, between the A55 and footpath/ cycle path	Medium/low	Slight to negligible	Minor	Adverse	Not significant
		Medium/low		Minor		
S11	Tŷ-Mawr Standing Stone Parc Cybi	Medium	Negligible	Minor	Adverse	Not significant

24.6.5.5. Potential Effects on Settlements

255. The following section provides an assessment of the predicted effects of the Project on the visual amenity that would be experienced by residents of key settlements within the Study Area. The assessment has been undertaken through field survey and the analysis of mapping ZTV and wireframe views, in order to confirm the likely nature of visibility.

256. In accordance with the criteria outlined in the methodology residential receptors, within settlements in the Study Area, typically have a high susceptibility to change as views are experienced regularly for prolonged periods and are generally considered to have a high sensitivity overall to the Project. In addition, particular visual characteristics within a settlement, such as views relating to the setting of a Conservation Area or visual influences from a designated landscape that the town or village may sit within or overlook – can be important with regard to the value of specific views in and around a town or village.

257. An indication of the predicted extents of visibility of the Project across the settlements is provided in the ZTVs for the MDZ and PDE (see **Figures 24-2-1**, **24-2-2a** and **24-2-2b**, **Volume II**). In addition, separate ZTVs have been prepared for each proposed substation. The ZTVs are based on bare ground conditions, therefore for those settlements where the ZTV indicates theoretical visibility, buildings and vegetation are likely to provide a degree of containment between receptors and the proposed development. Therefore, actual views to the Project will tend to be more restricted or intermittent than the ZTV indicates.

258. There are three key settlements where visual effects are most likely to occur, including:

- Holyhead;
- Trearddur; and
- Rhosneigr.

259. In addition to the above, there are numerous dispersed residential properties in the Study Area. Those that are most relevant to the SLVIA occur to the north west of Trearddur, including the community of Penrhosfeilw.

24.6.5.5.1. Holyhead

260. Holyhead lies to the east of the centre of the Study Area. The closest part of Holyhead lies approximately 2.5 km to the east of the MDZ, 1 km from the Landfall Substation and the Grid Connection Substation and Switchgear Building lie within the industrial and employment sites that lie on the south east edge of the town.

261. The ZTVs illustrate limited theoretical visibility of the offshore components of the Project and the Landfall Substation. The town is also orientated towards Holyhead Bay to the north, and therefore away from the MDZ. Greater theoretical visibility is associated with the Grid Connection Substations and Switchgear Building, particularly the Grid Connection Substation. The magnitude of change associated with the offshore elements would be limited by the pattern of visibility and intervening distance, restricting both the size/scale of the change and also the extent of the settlement affected. Whilst there is greater potential for the Grid Connection

Substation and Switchgear Building to be seen, the built form within the settlement would restrict this. In addition, both the Grid Connection Substation and Switchgear Building would be located within existing industrial and employment sites, meaning the relative change would be limited and structures in the immediate context of both sites would further restrict the potential visibility.

262. It is therefore considered that the Project would have a negligible magnitude of change on visual amenity for the residents within Holyhead. As residents have a high sensitivity, the resulting effect would be minor and not significant.

24.6.5.5.2. Trearddur

263. Trearddur lies to the east of the centre of the Study Area. The MDZ lies to the west, approximately 3.8 km from the closest part of the settlement. The Grid Connection Substation lies approximately 1.4 km to the to the north east of Trearddur. The Landfall Substation would not be visible from this settlement and would therefore not result in any effects on visual amenity. The ZTV for the Switchgear Building shows very limited visibility from the northern edge of Trearddur. Given this is a bare earth ZTV (meaning actual visuality is likely to be less) and the Switchgear Building is located within an employment site, next to an existing larger substation, it is not considered that it would result in any significant effects on this settlement.

264. The offshore elements of the Project would be seen in views to the north west, with the closest part of the MDZ located approximately 4.3 km from the settlement. However, the analysis of Viewpoints 8 (daytime), as well as Viewpoints 17 and 18 (night time) has identified that the predicted visual magnitude of change would be slight or slight to negligible and the potential effects would be moderate or moderate/minor and not significant. These viewpoints, particularly Ravens Point, are also arguably the locations where the offshore elements are likely to be most visible from Trearddur. Accordingly, it is considered that there would not be any significant effects from the offshore component of the Project on visual amenity in Trearddur.

265. The Grid Connection Substation would be theoretically visible from much of Trearddur. However, actual visual visibility would be very limited due to intervening woodland and or buildings, and also restricted to the north eastern edge of the settlement. In addition, the substation would be located in the context of the existing adjacent industrial development.

266. It is therefore considered that the Project would have a slight to negligible magnitude of change on the residents within Trearddur. As residents have a high sensitivity, the resulting effect would be moderate or moderate-minor and not significant.

24.6.5.5.3. Rhosneigr

267. Rhosneigr is located approximately 11.5 km from the MDZ. It is also located over 8 km from all onshore components of the Project and due to this separation distance and drawing on the fieldwork and findings of the Viewpoint Assessment, it is considered that there would not be any significant effects from the onshore components on visual amenity for residents within Rhosneigr.

268. Review of the ZTV for the MDZ shows potential visibility of the offshore elements of the Project. However, the ZTV for the PDE illustrates that no tidal energy devices or electrical hubs would

be seen. In addition, analysis of Viewpoint 10 located in Rhosneigr identifies that negligible change would occur and the visual effect would be minor.

269. It is therefore considered that the Project would have a negligible magnitude of change on the residents within Rhosneigr. As residents have a high sensitivity, the resulting effect on visual amenity would be minor and not significant.

24.6.5.5.4. Dispersed Residential Properties

270. In addition to the above settlements it is acknowledged that the rural character of the Study Area means there are numerous dispersed properties. This assessment does not seek to assess potential effects of the Project on all of these properties, but there are some important observations in relation to key properties. The main dispersed properties where there are likely to be greatest effects on visual amenity are those to the north west of Trearddur, including those within the community of Penrhosfeilw, and these effects are most likely to be associated with the changes resulting from the offshore components of the Project as well as the Landfall Substation.

271. Several locations along this section of coastline are included in the viewpoint assessment (e.g. Viewpoints 02, 03, 04 and 05). Whist none of the viewpoints specifically relate to the dispersed properties, field observations have identified that several properties are positioned to take advantage of the open views over the Irish Sea. Review of the assessment judgements in relation to these viewpoints indicates that there may be major or major/moderate and significant effect on visual amenity at dispersed properties within approximately 400 m of the Landfall Substation and up to approximately 3 km of the MDZ.

24.6.5.5.5. Transport Routes

24.6.5.5.5.1. Primary Roads

272. The three main routes within the Study Area (the A55, A5 and A5025) are all remote from the offshore elements of the Project and also the Landfall Substation. Review of the corresponding ZTVs identifies very limited visibility of the MDZ and Landfall Substation from these primary roads. The proposed Grid Connection Substation and Switchgear Building would be positioned closer to these primary roads, particularly the A55. However, any visibility of these substations would be very localised due to a combination of the size/scale of these components of the Project and the screening effect of existing vegetation and buildings. Any views from these routes would be transitory and short in duration. Therefore, any potential effects on visual amenity for road users would be very limited and not significant. This is also demonstrated by the analysis of Viewpoints S06 and S10, which identifies the potential for minor effects as a result of the Project at both locations.

24.6.5.5.5.2. Secondary Roads

273. The baseline assessment also identifies the B4545 as a key coastal route. As with the primary roads, this route is also relatively remote from the key elements of the Project. The ZTV for the MDZ shows theoretical visibility of the offshore components in Trearddur. However, given this section of road is within the settlement, intervening buildings greatly restrict views to the sea

and therefore would also limit potential visibility of the tidal energy devices. There is no predicted visibility of the Landfall Substation from the B4545. Both the Grid Connection Substations and Switchgear Building would be theoretically visible. However, the relative size/scale of these structures, separation distance from the route, screening influence of intervening buildings and vegetation, and context within which they would be seen means potential effects are predicted to be limited and not significant. No viewpoints have been selected to specifically assess these project components from the B4545, but it is expected that the potential magnitude of change would be no greater than slight, and the visual effect no greater than moderate/minor.

24.6.5.5.5.3. Minor Roads

274. In addition to the above there are multiple minor roads within the Study Area. These are frequently remote from the Project components which would typically limit potential effects. However, there are some important observations in relation to certain minor roads on the north west part of Holy Island. The minor roads where there are likely to be greatest effects on visual amenity are the coastal route between Trearddur and Holyhead (part of which is South Stack Road) and also the section of South Stack Road that terminates at the small car park near South Stack. There is frequent visibility of the Irish Sea from this route, and therefore potential visibility of the offshore components of the Project. In addition, South Stack Road also passes adjacent to the Landfall Substation.

275. Several locations along this section of coastline are included in the viewpoint assessment (e.g. Viewpoints 02, 03, 04 and 05). With the exception of Viewpoint 02, the car park where South Stack Road terminates, these viewpoints are not located on the road and have not been specifically used to assess the effects of the offshore components of the Project on road users. However, field observations have confirmed the potential for views over the Irish Sea and, relating the assessment judgements for these viewpoints, it is likely that there would be major/moderate and significant effects on visual amenity for users of this road.

276. Views to the proposed Landfall Substation have been assessed at a number of Viewpoints (e.g. S01, S02, S03, and S04). However, this process has identified no significant effects resulting from the Landfall Substation, with the proposed structure typically comprising a limited addition to the views.

24.6.5.5.5.4. Ferry Passengers

277. Ferry routes between Holyhead and Ireland cross the seaward part of the Study Area to the north of the MDZ. The Project components relevant to these receptors are the offshore structures within the MDZ. The onshore Project components would be remote from these receptors and unlikely to be visible or distinguishable is landward views.

278. The ferry routes lie to the north of the MDZ and the tidal energy devices would be seen in transitory views from ferries and also cruise ships heading to and from Holyhead Port. Such views to the Project would form a small part of long-distance journeys. Viewpoint 13 has been selected to provide an indication of the magnitude of change and related effects on visual amenity for ferry passengers. The assessment identifies that the potential effects of the Project would be moderate/minor and not significant. It is also recognised that Holyhead Mountain is

noted in published documents as forming a landmark for people arriving at Holyhead. Importantly, whist the offshore structures would be visible, it is considered that their limited height would not diminish the much greater height of Holyhead Mountain.

24.6.5.5.5.5. Recreational Receptors

279. The baseline assessment identifies several recreational receptors relevant to the assessment including:

- The users of long-distance footpaths;
- The users of other PRoW and Open Access Land;
- Promoted cycle routes;
- Visitors to South Stack Royal Society for the Protection of Birds (RSPB) Visitor Centre;
- Visitors to beaches; and
- Offshore recreational receptors.

280. The above recreational receptors are typically considered to be of high susceptibility to change associated with the Project as their attention is focussed on the landscape. The exception to this is cyclists as the nature of the views obtained are more transitory and a greater degree of attention on the route is required. The value of the views experienced by such receptors is also considered to be high in this instance due to the value attached to the landscape, as well as the promotion of these routes. Therefore, the sensitivity of people using these recreational resources, in relation to the Project is high or high/medium (the latter applying to cyclists).

24.6.5.5.5.5.1. The Users of Long-Distance Footpaths

281. The two long distance footpaths within the Study Area comprise the Wales Coast Path and the Isle of Anglesey Coastal Path, both of which follow an almost identical route. The sections of these routes where there are likely to be greatest effects on visual amenity are between Penrhyn Mawr and North Stack (i.e. the closest section of the coastline to the MDZ). There is constant visibility of the Irish Sea from this route, and therefore potential visibility of the offshore components of the Project. There is also potential visibility of Landfall Substation from locations close to the coastline to the south west of this Project component.

282. In addition, there is theoretical visibility of the Grid Connection Substation and Switchgear Building from this route. However, it is expected that any views would be severely restricted or prevented by intervening buildings and vegetation, particularly from the closest sections of this path e.g. at Penrhos Beach. Therefore, it is not anticipated that the Grid Connection Substation and Switchgear Building would result in significant effects on visual amenity for users of the long-distance footpaths.

283. Almost all the viewpoints selected in relation to the offshore components of the Project (located along the western coastlines of Holy Island and the Isle of Anglesey) are on the route of these long-distance paths (i.e. Viewpoints 01, 02, 03, 04, 06, 07, 08, 09, 10, 11 and 12). These viewpoints demonstrate the open, expansive views over the Irish Sea obtained from this path. The viewpoint assessment also identifies that the predicted effects are likely to be major or

major/moderate and significant for the closest parts of this route. At more distant locations the relative size/scale of the structures would quickly diminish and the corresponding effects would not be significant. Therefore, the significant visual effects would be associated with a short section of these routes (within approximately 4 km of the MDZ).

284. Views to the proposed Landfall Substation from these long-distance routes have been assessed at Viewpoints S02, S03, and S04. However, this process has identified no significant effects resulting from the Landfall Substation, with the proposed structure typically comprising a limited addition to the views.

24.6.5.5.5.5.2. The Users of Other Public Rights of Way and Open Access Land

285. In addition to the above there are multiple other PRoW and area of Open Access Land within the Study Area. These are frequently remote from the Project components which would typically limit potential effects. However, there are some important observations in relation to certain routes/areas on the north west part of Holy Island. The routes/areas where there are likely to be greatest effects on visual amenity are between Penrhyn Mawr and South Stack, including South Stack Cliffs Nature Reserve/The Range and the south west slopes of Holy Island. In the majority of instances, the coastal paths forms part of the long distance routes considered above. There is frequent visibility of the Irish Sea from these routes, and therefore potential visibility of the offshore components of the Project.

286. With the exception of Viewpoint 05, which lies within Open Access Land (at Cytiau'r Gwyddelod scheduled monument), these viewpoints are all located on the Anglesey Coastal Path/Wales Coast Path and have not been specifically used to assess the effects of the offshore components of the Project on other PRoW/Open Access Land. However, field observations have confirmed the potential for views over the Irish Sea and, relating these to the assessment judgements for surrounding viewpoints, it is likely that there would be locations within approximately 4km of the MDZ where the predicted effect would be major or major/moderate and significant.

287. Views to the proposed Landfall Substation have also been assessed from Open Access Land on the south west slopes of Holyhead Mountain (viewpoint S05). However, this analysis has identified no significant effects resulting from the Landfall Substation, with the proposed structure typically comprising a limited addition to the view.

24.6.5.5.5.5.3. Promoted Cycle Routes

288. There are two National Cycle Routes within the Study Area, which are shown on **Figure 24-1-2b** (**Volume II**). These routes are remote from the offshore elements of the Project and also the Landfall Substation. Review of the corresponding ZTVs identifies very limited visibility of the MDZ and Landfall Substation from these primary roads. The proposed Grid Connection Substation and Switchgear Building would be positioned closer to these cycle routes. However, any visibility of these substations would be very localised due to a combination of the size/scale of these components of the Project and the screening effect of existing vegetation and buildings. Any views from these routes would there both be transitory and very short in duration. Therefore, any potential effects would be very limited and not significant.

289. In addition to the above there four locally promoted cycle routes within the Study Area (also shown on **Figure 24-1-2b, Volume II**). These typically follow minor roads and therefore the effects are broadly consistent with those stated above for the users of these routes. The parts of these local cycle routes where there are likely to be greatest effects on visual amenity are the coastal route between Trearddur and Holyhead (part of which is South Stack Road). There is frequent visibility of the Irish Sea from this road, and therefore potential visibility of the offshore components of the Project. South Stack Road also passes adjacent to the Landfall Substation.

290. Several locations close to this section of coastline are included in the viewpoint assessment (e.g. Viewpoints 02, 03, 04 and 05). These viewpoints are not located on the cycle routes and have not been specifically used to assess the effects of the offshore components of the Project on these receptors. However, field observations have confirmed the potential for views over the Irish Sea and, relating the assessment judgements for these viewpoints to the cycle routes, it is likely that there would be locations where the predicted effect would be major or major/moderate and significant.

291. Views to the proposed Landfall Substation have been assessed in a number of viewpoints on the minor roads that form part of the cycle routes (i.e. S01, S02, S03, and S04). However, this process has identified no significant effects resulting from the Landfall Substation, with the proposed structure typically comprising a limited addition to the views.

292. The local cycle routes also pass close to the Grid Connection Substation and Switchgear Building, particularly the Trearddur Loop, which follows the cycle path through Parc Cybi allocated employment site. However, the relative scale of these substations, local context (industrial/employment uses) and/or the screening effects of vegetation would limit potential visual effects which are not predicted to be significant at any of the viewpoints specific to these project components.

24.6.5.5.5.4. Visitors to South Stack RSPB Visitor Centre

293. The RSPB Visitor Centre is positioned on the coastline near South Stack and is positioned to take advantage of the views along the coastline and across the Irish Sea. This receptor has been specifically included in the viewpoint assessment (Viewpoint 04) and it is predicted that there would be a major or major/moderate and significant effect on visual amenity for people at the Visitor Centre.

24.6.5.5.5.5. Visitors to Beaches

294. Key beaches in the Study Area that lie close to the Project include:

- The beach at Abraham's Bosom;
- Porth Dafarch;
- Trearddur Bay;
- Borthwen;
- Sliver Bay;

- Rhosneigr; and
- Beaches at Penrhos.

295. With the exception of the beach at Abraham's Bosom, it is predicted that there would be limited or no visibility from the above beaches. This broad conclusion is established through analysis of the ZTVs and the viewpoint assessment, which has specifically considered the beaches where visibility of project elements is most likely to occur (Porth Dafarch, Trearddur Bay and Rhosneigr).

296. The cable landfall point would be within the beach at Abraham's Bosom. Fieldwork observations have identified that this beach is not very accessible due to the condition of the route leading to it. However, people visiting the beach are still considered to be of high sensitivity. Assuming the potential worst-case scenario (which comprises cables in shallow trenches, protected by rock bags or similar, and cables pinned to the cliff face) there would be substantial and therefore major adverse effect on visual amenity for visitors to this beach. However, should it be feasible to install the landfall cable using horizontal directional drilling there would be no change to the character or appearance of this beach and potential effects would only be associated with the offshore structures.

24.6.5.5.5.5.6. Offshore Recreational Receptors

297. Offshore recreational receptors such as people travelling on recreational vessels have been specifically considered in respect of Viewpoint 14. This viewpoint is located approximately 2.4 km from the MDZ, where it is predicted that there would be a moderate and not significant effect these receptors. However, it is acknowledged that the level of effect on these receptors, at a given location, would vary with distance and greater (and potentially significant) effects would occur at locations closer to the MDZ. However, such effects would be localised and associated with people travelling within approximately 2 km of the Project and lesser (not significant) effects would occur at greater separation distances.

24.6.5.5.6. Overview of Potential Visual Effects

298. The predicted visual effects vary for the different components of the Project. The greatest magnitude of change and potential effects are associated with the offshore components of the Project. Lesser effects are associated with the onshore components, particularly the Grid Connection Substation and the Switchgear Building.

299. The generally open and exposed character of the Study Area gives rise to frequent and extensive views over the landscape/seascape. Holyhead Mountain forms a prominent and distinctive landmark, frequently forming a key component of views on this part of Holy Island and the Isle of Anglesey. The elevated landform and openness of the slopes also affords long distance views over both the landscape and surrounding sea. The effects associated with the offshore components of the Project would be greatest in the vicinity of Holyhead Mountain and the coastline to the south west of Penrhosfeilw, where a combination of the proximity of the MDZ and elevation of the landscape mean the number and spread of tidal devices and associated structures would form distinctive new man-made elements on the sea surface that contrast with the baseline context.

300. An important factor in the assessment of effects is the value and sensitivity of the landscape/seascape. It is a location of high scenic quality, which is reflected in much of the Study Area being designated as an AONB and Heritage Coast. This in turn means that people living within and visiting locations in the Study Area are frequently assessed as being of high sensitivity.

301. The limited height of the tidal devices means that their relative prominence would diminish quickly with distance. At viewpoints located further than 3 km from the MDZ the potential effect is predicted to be moderate or less. From such locations, and viewpoints towards the peripheral parts of the Study Area it would be difficult to discern the changes resulting from structures within the MDZ. The crenulated form of the coastline will also influence this, with the coastal landform restricting views of the Project.

302. Navigation lighting is also an important consideration in relation to potential effects. The limited artificial lighting within the baseline of part of the Study Area, particularly adjacent to the MDZ means this lighting would contrast with the baseline context of a sea surface largely devoid of fixed sources of light, although noting the presence of South Stack Lighthouse. Again, the key changes associated with lighting would be associated with the viewpoints on the most western parts of Holy Island, e.g. in the vicinity of South Stack. However, from more settled areas, or where settlements form part of the view, including Trearddur, the magnitude of change and predicted effects would be less.

303. The Landfall Substation and sections of the onshore cable route would be located within the AONB, to the west of Holyhead. Again, the open, exposed nature of this landscape means that the Landfall Substation would be visible. In addition, the baseline landscape is sensitive to the changes that would result from such development. However, the sensitive siting and design of this element of the Project has reduced potential adverse effects. It would be positioned in a relatively low lying position to provide visual enclosure and the layout and form of the structures have been designed to reflect local agricultural buildings, reducing the contrast and change in relation to the baseline landscape. There are locations from which close-range views of the Landfall Substation would be seen, but these are typically from South Stack Road and are therefore transient in nature. The predicted visual effects resulting from the Landfall Substation are no greater than moderate, and these quickly reduce to moderate/minor or less with increasing distance.

304. The proposed Grid Connection Substation and the Switchgear Building are considered to result in limited visual effects, with no significant effects predicted. In the case of the Switchgear Building the relative size of the proposed structure, together with the baseline context within the allocated employment site, would limit the predicted magnitude of change and levels of effect. The Grid Connection Substation site is enclosed by vegetation and adjacent to existing industrial structures and land uses. These factors both limit potential visibility and the contrast with the baseline conditions.

24.6.6. Potential Impacts During Repowering and Decommissioning

305. The potential seascape/landscape and visual effects associated with the repowering of berths and decommissioning would be comparable with the construction phase detailed in **Section 24.6.4**.

306. The most conspicuous changes during the decommissioning phase are likely to be associated with the removal of the Landfall Substation.

307. Overall, the potential seascape/landscape and visual effects associated with these phases will be short term, temporary and the changes compared with the baseline limited. In the case of repowering these activities would be intermittent and seen in the context of the tidal energy devices that form part of the PDE. Repowering activities are also likely to take place in specific parts of the MDZ rather than throughout it at any one time. Therefore, no effects greater than those associated with the operational phase are predicted in relation to repowering and decommissioning.

24.6.7. Cumulative Impacts

308. An assessment of the potential for cumulative effects with other proposed developments in the Study Area has been undertaken. This has involved review of information available from IoACC, NRW (in relation to Marine Licences) and National Infrastructure Planning to identify proposed developments with similar characteristics to the Project which could result in cumulative effects. Based on this process, and with consideration of the key characteristics of the various components of the Project, the following are considered to be the proposed developments with which the Project has greatest potential to result in cumulative effects:

- DG Holyhead Deep Array Project;
- Orthios development proposals, including Anglesey Eco Park Power Station;
- Holy Island Resort; and
- Huws Gray builders' merchant at Parc Cybi.

309. The DG Holyhead Deep Array Project comprises a proposed tidal energy development to the west of the MDZ. A scoping report has been prepared for this proposed development, but a Section 36 application or Marine Licence application has not been submitted at present. It would include the construction, operation and decommissioning of tidal energy devices (Deep Green Utility units) with an area 9.1 km^2 approximately 6.5 km to the west of Holy Island. The Deep Green Utility units operate under the water, with no visible elements above the sea surface, apart from the possible use of floating electrical connection hubs within moored buoys. However, the hubs may be mounted on the seabed. This development would have appropriate required navigation marking and lighting. The scoping report for the DG Holyhead Deep Array Project does not identify any specific onshore grid connection infrastructure.

310. Orthios are proposing a range of developments within the former aluminium works site. A planning application for demolition works within the site has been approved. It is understood

that there are emerging development proposals for the site including a 299 MW biomass power station (the Eco Park Power Station). The emerging proposals for the aluminium works site are not yet the subject of a planning application therefore the associated details are not known at present.

311. The Holy Island Resort proposal comprises the creation of a luxury holiday destination on the Penrhos Estate. It would include 500 lodges, restaurants, a spa and a waterpark. Planning permission for this development has been granted and it is understood that the site for this development includes land to the north and south of the A55 to the east of Holyhead.

312. A high level assessment of the above developments has been undertaken to understand the potential for cumulative effects to occur in combination with the Project, based on the size, location, extent and characteristics of each of these proposed developments. This has identified that the key development that has greatest potential to result in cumulative effects is the DG Holyhead Deep Array Project. As the Agreement for Lease Area for this proposed development is located further offshore, it would typically be seen behind the Project from the terrestrial parts of the Study Area. This proposed development is currently at scoping stage and it is uncertain what, if any, surface emergent elements would be deployed. The elements that could result in combined effects with the Project would comprise vessels used in construction and operation/maintenance, and navigation markers including lighting which could result in a greater magnitude of change during daylight and night hours. Based on the existing level of information, it is difficult to draw any specific conclusions on the potential cumulative effects and these would need further consideration when the application for the Holyhead Deep Array Project is submitted.

313. The Orthios development proposals also have the potential to result in cumulative effects in combination with components of the Project, particularly the Grid Connection Substation and Switchgear Building components. As these proposals are not yet part of a planning application, the details are not available. The potential for cumulative effects with the Project would require assessment when this planning application is submitted. The baseline context of industrial structures within the former aluminium works site is likely to limit the potential level of cumulative effects between the proposed Grid Connection Substation and Switchgear Building components of the Project and the Orthios proposals.

314. The Holy Island Resort development would be located close to the proposed Grid Connection Substation and Switchgear Building. It has been established throughout the SLVIA that the Grid Connection Substation would be located within a visually enclosed site in the context of existing industrial structures, which forms part of the baseline. In addition, the Switchgear Building would form a relatively small structure in the context of an existing development site. It is also unlikely that there would be any inter-visibility between the Holy Island Resort and the offshore components of the Project. Therefore, the potential cumulative seascape, landscape and visual effects of the Project with the Holy Island Resort development are likely to be limited and not significant.

315. The Huws Gray builders' merchant development would be positioned immediately to the north west of the Switchgear Building. The principle of development within this location is established through its allocation for employment uses in the Local Development Plan. Whilst the

Switchgear Building and Grid Connection Substation would contribute to cumulative effects with the Huws Gray development. However, the context of the Project, including both the industrial structures within the Orthios site and the employment land allocation at Parc Cybi, together with the scale and prominence of the Switchgear Building and Grid Connection Substation will restrict its overall contribution to cumulative effects. Overall, is it considered that the potential cumulative seascape, landscape and visual effects of the Project with the Huws Gray development are likely to be limited and not significant.

24.6.8. Inter-relationships

316. **Table 24-17** lists out the inter-relationships between this chapter and other chapters within the ES.

Table 24-17 Inter-topic relationships

Topic and description	Related Chapter	Where addressed in this Chapter	Rationale
Onshore Archaeology and Cultural Heritage	Chapter 20	Section 24.6 (all impacts); Section 24.6.5.3 (impacts on landscape designations)	Both chapters consider the potential effects of the Project on designated Registered Parks and Gardens and their setting within the landscape.
Socio-Economics, Tourism and Recreation	Chapter 25	Section 24.6 (all impacts).	Both chapters consider the potential effects of the Landfall Substation, Grid Connection Substation and Switchgear Building on the visual amenity of recreational users in the local area.
Onshore Ecology	Chapter 19	Section 24.6.2 (design optimisation and embedded mitigation) Section 24.6.4 (impacts during construction) Section 24.6.5 (impacts during operation)	Both chapters consider the potential effects of vegetation removal, the SLVIA considering the impact of vegetation removal as landscape elements, and the Onshore Ecology assessment considering the impact on vegetation removal as ecological receptors.

24.6.1. Interactions

317. The impacts identified and assessed in this chapter have the potential to interact with each other, which could give rise to synergistic impacts as a result of that interaction. The worst case impacts assessed within the chapter take these interactions into account and for the impact assessments are considered conservative and robust. For clarity the areas of interaction between impacts are presented in **Table 24-18**, along with an indication as to whether the interaction may give rise to synergistic impacts.

Table 24-18 Potential interaction between impacts

Construction				
	1 Loss of agricultural land	2 Loss of hedgerows and scrub	3 Changes to landscape character	4 Changes to landscape designations
1 Loss of agricultural land	-	Yes	Yes	Yes
2 Loss of hedgerows and scrub	Yes	-	Yes	Yes
3 Changes to landscape character	Yes	Yes	-	Yes
4 Changes to landscape designations	Yes	Yes	Yes	-
Operation				
1 Loss of agricultural land	-	Yes	Yes	Yes
2 Loss of hedgerows and scrub	Yes	-	Yes	Yes
3 Changes to landscape character	Yes	Yes	-	Yes
4 Changes to landscape designations	Yes	Yes	Yes	-

24.7. SUMMARY

318. The Project comprises a range of components, with those most likely to have adverse effects on seascape, landscape and visual receptors being:

- The offshore structures within the MDZ, particularly the tidal energy devices, electrical hubs, navigation markers and lighting;
- The landfall cables within Abraham's Bosom;
- The Landfall Substation;
- The Grid Connection Substation; and
- The Switchgear Building

319. Much of Holy Island and the Isle of Anglesey within the 15 km Study Area considered in this assessment form part of the Isle of Anglesey AONB, with sections of the coastline also designated as Heritage Coast. There are other relevant designations within the Study Area (such as a SLA and a Registered Park and Garden), but the Project is not predicted to result in any significant effects on these designations. Therefore, the proposed Project would be located where surrounding landscapes are considered to be of national and local authority value and

the characteristics of the corresponding seascape and landscape areas are sensitive to changes that would occur as a result of tidal energy development.

320. A summary of the effects identified in the SLVIA is included in **Table 24-19** below.

24.7.1. Potential effects associated with construction

321. The relatively small extent of the disturbance, the short duration of the effects and the reinstatement of working areas in relation to the onshore components of the Project would ensure that the effects of the construction phase on the landscape fabric, character and visual amenity of the locality would be limited. In relation to the offshore components of the Project, the construction activities would take place over a longer duration and these works would overlap with the operational phase. Due to the temporary nature, limited extent of the actual construction activities and anticipated overlap with the operational phase, the SLVIA concentrates on the effects resulting from the operational phase of the Project.

24.7.2. Potential Effects on Seascape Resource

322. Physical effects on the fabric of the qualities and characteristics of the seascape and landscape as a result of the offshore elements would be limited in extent and visible changes would be reversible on decommissioning of the Project. The tidal energy devices would be attached to foundations secured to the seabed and all structures that emerge from the surface of the sea would be removed on decommissioning. While it may not be possible to remove all the elements within the development site (e.g. foundations), all visible components would be removed, and the visual characteristics of the seascape would revert to pre-development conditions. This is also expected to be the case for the onshore components of the Project, with all above ground structures proposed to be removed as part of the decommissioning phase.

323. The arrays of tidal energy devices would potentially be seen from parts of the surrounding area and have the potential to affect the perception of seascape and landscape character, both in daylight and at night time. The high value placed on the landscape and coastline of much of the Study Area is reflected in its designation as an AONB and Heritage Coast. The relative sense of remoteness and tranquillity associated with parts of the Study Area (e.g. Holyhead Mountain) also affect its sensitivity.

324. Overall, the SLVIA has identified that there would be some adverse effects as result of the offshore elements of the Project. Of the 14 SCAs and LCAs in the Study Area it is predicted that significant adverse effects on parts of the Holyhead Mountain and Rhoscolyn SCAs. The effects on the Holyhead Mountain and Rhoscolyn Seascape Character Areas would be particularly associated with locations that are more remote and where the composition of the arrays of tidal devices introducing new man-made elements to the seascape would be apparent. In the context of the wider Study Area, the offshore components of the Project would frequently comprise relatively small elements in the context of key components of the character types/units and the potential effects on seascape/landscape character are not predicted to be significant. The tidal energy devices would not become a defining feature of seascape or landscape character and would comprise small components within the open views that can be seen over the Irish Sea.

325. It is predicted that the onshore components of the Project, would not result in significant adverse effects on seascape or landscape character for any of the 14 SCAs and LCAs identified in the baseline assessment, including the Rhoscolyn and Holyhead SCAs in which the substations would be located. In the case of the Landfall Substation this has been located and designed to mitigate potential adverse effects on the Rhoscolyn SCA. The Switchgear Building, also within the Rhoscolyn SCA, would comprise a relatively small scale structure within an allocated employment site. The Grid Connection Substation, within the Holyhead SCA would comprise larger structures, but these would be would be positioned within land that is enclosed by existing vegetation and buildings and in the immediate context of existing industrial structures.

24.7.3. Potential Effects on Designations

326. Potential effects on designated landscapes within the Study Area have been assessed, including the Isle of Anglesey AONB, sections of Heritage Coast, Mynydd Mechell SLA, Conservation Areas and Carreglwyd Registered Park and Garden.

327. Localised significant adverse effects are predicted on the AONB and section of the Heritage Coast closest to the Project, specifically in relation to the Holyhead Mountain and Rhoscolyn seascape character areas. However, no overall significant effect is predicted for the whole of the AONB or the other section of Heritage Coast in the Study Area. Physical effects on the fabric of the seascape/landscape within these designations would be relatively limited and no notable features or elements would be lost. There would be localised significant effects at Abraham's Bosom within the Heritage Coast (and AONB) in relation to the worst-case scenario for the landfall cables.

328. No significant effects are predicted on the Mynydd Mechell SLA Conservation Areas and Carreglwyd Registered Park and Garden due to a combination of the intervening distance, limited inter-visibility and/or context of the Project components.

24.7.4. Potential Effects on Visual Amenity

329. The study has assessed the effects of the Project upon settlements, transport routes and recreational receptors in the Study Area. Potential effects on visual amenity at a range of viewpoints that are representative of the views seen by a range of visual receptors have also been assessed.

330. The nature of the offshore structures associated with the Project and the sensitivity of local visual receptors means that there would be some adverse effects on visual amenity. The extent of these potential effects would be limited to some extent by landform, as well as the relative size/scale of the structures compared with elements of the existing environment and the reversible characteristics of the proposals. In the case of the Grid Connection Substation and Switchgear Building, the restrictions to potential visibility due to vegetation and buildings, together with the nature of land uses and buildings in the immediate vicinity of these Project components would limit the potential visual effects.

331. Significant potential visual effects have been identified in relation to receptors in the closest part of the coastline, between Penrhyn Mawr and South Stack. These receptors include:

- Residents of dispersed properties;
- People walking the Anglesey Coastal Path/Wales Coast Path; and
- People visiting the RSPB reserve and visitor centre.

332. At other locations the degree of change and effect would be less, mitigated by the intervening distance, relative scale of the proposed structures, the context in which they would be seen and/or the scale of the view. The Project has an overall lifespan of 37 years and following decommissioning the devices and structures would be removed, reversing the potential effects identified in the SLVIA.

24.7.5. Potential for Cumulative Effects

333. A high level review of proposed developments within the Study Area has been undertaken as part of the SLVIA. Review of these has identified that the key development that has the potential to result in cumulative effects in combination with the Project is the Holyhead Deep Array Project. However, this proposed development is currently at the scoping stage and insufficient detail is known about its likely design envelope to carry out a meaningful cumulative assessment with the Project. Therefore, further consideration of the potential cumulative effects with the Project would be required in the future.

Table 24-19 Summary of Key Potential Impacts for Seascape, Landscape and Visual Receptors

Receptor	Sensitivity	Magnitude	Effect	Significance
Seascape				
SCA 10 – Carmel Head to Penrhyn	High/medium	Slight/negligible	Minor (adverse)	Not significant
SCA 11 – Holyhead	Medium	Slight	Minor (adverse)	Not significant
SCA 13 – Holyhead Mountain	High	Medium	Major/moderate (adverse)	Significant
SCA 14 – Rhoscolyn	High/medium	Medium	Moderate (adverse)	Significant
SCA 31 – West of Anglesey	Medium	Medium/slight	Moderate (adverse)	Significant
Designations				
Isle of Anglesey AONB	High	Medium	Moderate (adverse)	Locally significant
Heritage Coast (Holy Island)	High	Substantial	Major (adverse)	Significant
Heritage Coast (north west Anglesey)	High/medium	Slight/negligible	Minor (adverse)	Not significant
Mynydd Mechell SLA	Not specifically assessed	None	None	Not significant
Conservation Areas	Not specifically assessed	Not specifically assessed	Predicted to be very limited	Not significant
Carreglwyd Registered Park and Garden	Not specifically assessed	Not specifically assessed	Predicted to be limited	Not significant
Settlements				
Holyhead	High	Negligible	Moderate/minor	Not significant
Trearddur	High	Slight to negligible	Moderate to moderate/minor	Not significant
Rhosneigr	High	Negligible	Minor	Not significant
Dispersed residential properties (north west Holy Island)	High	Substantial to medium	Major to major/moderate	Significant
Transport routes				
Primary roads	Medium/low	Slight to negligible	Minor to negligible	Not significant
Secondary roads	Medium/low	Slight	Moderate/minor	Not significant
Minor roads (north west Holy Island)	High/medium	Substantial to medium	Major/moderate	Significant

Ferry passengers	Medium	Slight	Moderate/minor	Not significant
Recreational Receptors				
Users of long-distance footpaths	High	Substantial to medium	Major to major/moderate (locally)	Significant
Other footpaths and Open Access Land	High	Substantial to medium	Major to major/moderate (locally)	Significant
Promoted cycle routes	High/medium	Substantial to medium	Major to major/moderate (locally)	Significant
Visitors to South Stack RSPB Visitor Centre	High	Substantial to medium	Major to major/moderate (locally)	Significant
Visitors to beaches (Porth Dafarch, Trearddur Bay, Borthwen Sliver Bay, Rhosneigr and Penrhos)	High	Negligible to none	Minor to none	Not significant
Visitors to beach at Abraham's Bosom	High	Substantial	Major	Significant
Offshore recreational receptors	High/medium	Slight to negligible	Moderate (locally)	Not significant

24.8. REFERENCES

CADW and ICOMOS UK (1998) Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales, CADW

CADW, Countryside Council for Wales and ICOMOS UK (1998) Register of Landscapes of Outstanding Historic Interest in Wales, CADW

CADW, Countryside Council for Wales and ICOMOS UK (2001) Register of Landscapes of Special Historic Interest in Wales, CADW

Countryside Council for Wales, Brady Shipman Martin and University College Dublin (2001) Guide to Best Practice in Seascape Assessment, Maritime Ireland/Wales INTERREG 1994-1999

Department of Energy and Climate Change (July 2011) Overarching National Policy Statement for Energy (EN-1), The Stationary Office, London

Department of Energy and Climate Change (July 2011) National Policy Statement for Renewable Energy Infrastructure (EN-3), The Stationary Office, London

Enviros Consulting (2005) Seascape and Visual Impact Assessment Guidance for Offshore Wind Farm Developers, DTI

Fiona Fyfe Associates with Countryscape and Bangor University (SEACAMS), (2013) Anglesey Seascape Character Assessment, Isle of Anglesey County Council

International Association of Marine Aids to Navigation and Lighthouse Authorities (December 2013) IALA Recommendation O-139 on The Marking of Man-Made Offshore Structures, Edition 2

International Association of Marine Aids to Navigation and Lighthouse Authorities (May 2013) IALA Recommendation E-108 on The Surface Colours used as Visual Signals on Aids to Navigation, Edition 3

Isle of Anglesey County Council and Gwynedd Council, Anglesey and Gwynedd Joint Local Development Plan 2011 – 2026, Written Statement, adopted 31st July 2017

Isle of Anglesey County Council and Gwynedd Council (2012) Review of Special Landscape Areas in Gwynedd and Anglesey

Isle of Anglesey AONB and NRW, The Isle of Anglesey AONB - Management Plan Review 2015-2020

Landscape Institute (2011) Photography and Photomontage in Landscape and Visual Impact Assessment, Landscape Institute Advice Note 01/11

Landscape Institute and Institute of Environmental Management and Assessment, (2013) Guidelines for Landscape and Visual Impact Assessment (GLVIA 3), Third Edition, Routledge, Abingdon

LDA (2012) An Approach to Seascape Character Assessment, Natural England

LUC (2015) National Seascape Assessment for Wales, Natural Resources Wales

Natural England (October 2012) An Approach to Seascape Character Assessment

Natural England (February 2010) Natural England Position Statement: All Landscapes Matter

Natural Resources Wales (dates vary for different character area profiles) National Landscape Character Areas

Natural Resources Wales (undated) LANDMAP Information

Scottish Natural Heritage (February 2017) Visual Representation of Wind Farms

TACP (2011) Anglesey Landscape Strategy update, Isle of Anglesey County Council

The Countryside Agency and Scottish Natural Heritage (2002) Landscape Character Assessment: Guidance for England and Scotland

Welsh Government (December 2018) Planning Policy Wales (PPW), Edition 10

Welsh Government (July 2005) Technical Advice Note 8: Planning for Renewable Energy

Welsh Government (March 2016) Technical Advice Note 12: Design

Welsh Statutory Instruments (2016) Town and County Planning (Environmental Impact Assessment) (Wales) Regulations 2016, The Stationary Office Limited