# RWE



# Awel y Môr Offshore Wind Farm

# Category 6: Environmental Statement

Volume 2, Chapter 10: Seascape, Landscape and Visual Impact Assessment

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# **Glossary of terms**

TERM	DEFINITION
Bokeh	Term used in photography to describe the way the lens renders out-of-focus points of light.
LANDMAP	LANDMAP is a unique national information system, allowing information about landscape in Wales to be collected and organised into a nationally consistent dataset. The LANDMAP database includes both objective and subjective information and is designed to enable landscape quality to be taken into account in decision making.
Landscape character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Landscape effects	Effects on the landscape as a resource in its own right.
Seascape	Landscapes with views of the coast or seas, and coasts and adjacent marine environments with cultural, historical and archaeological links with each other.
Visual amenity	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating or travelling through an area.
Visual effects	Effects on specific views and on the general visual amenity experienced by people.



# **Abbreviations and acronyms**

TERM	DEFINITION
ADS	Alternative Design Scenario
AfL	Agreement for Lease
AOD	Above Ordnance Datum
AoS	Area of Search
AONB	Area of Outstanding Natural Beauty
AyM	Awel y Môr
CAA	Civil Aviation Authority
Cadw	National Agency for Conservation of the Historic Environment
ССВС	Conwy County Borough Council
CEA	Cumulative Effects Assessment
CPRE	Campaign for the Protection of Rural England
DCC	Denbighshire County Council
DSR	Dark Sky Reserve
ECC	Export Cable Corridor (offshore ECC)
ILP	Institution of Lighting Professionals
loA	Isle of Anglesey
LCA	Landscape Character Area
LCT	Landscape Character Type
LDR	Long Distance Route
LPA	Local Planning Authority



TERM	DEFINITION
MDS	Maximum Design Scenario
MCA	Marine Character Area
MHWS	Mean High Water Springs
NCR	National Cycle Route
NLCA)	National Landscape Character Areas
NPS	National Planning Statement
NRW	Natural Resources Wales
NSIP	Nationally Significant Infrastructure Project
OSP	Offshore Substation Platform
OWF	Offshore wind farm
PAWE	Pre-assessed Areas for Wind Energy
PINS	The Planning Inspectorate
SCA	Seascape Character Area
SLVIA	Seascape, Landscape and Visual Impact Assessment
SLV	Seascape, Landscape and Visual
SNP	Snowdonia National Park
SPG	Supplementary Planning Guidance
SVIA	Seascape and Visual Impact Assessment (term used in NPS)
VP	Viewpoint
WTG	Wind Turbine Generator



# **Units**

UNIT	DEFINITION
cd	candela
m	meter
NM	Nautical mile
km	kilometer

# 10 Seascape, Landscape and Visual Impact Assessment (SLVIA)

#### 10.1 Introduction

- This chapter of the Environmental Statement (ES) sets out the results of the assessment of the likely significant effects on seascape, landscape and visual amenity as a result of the Awel y Môr Offshore Wind Farm (AyM OWF), hereafter referred to as AyM.
- 2 This chapter has been informed by the following ES chapters:
  - Volume 1, Chapter 3: Environmental Impact Assessment Methodology (application ref: 6.1.3);
  - Volume 1, Chapter 4: Site Selection and Consideration of Alternatives (application ref: 6.1.4);
  - Volume 2, Chapter 1: Offshore Project Description (application ref: 6.2.1); and
  - Volume 3, Chapter 2: Landscape and Visual Impact Assessment (application ref: 6.3.2).
- 3 This chapter should be read in conjunction with the following ES documents:
  - Volume 4, Annex 10.1: Methodology (application ref: 6.4.10.1);
  - Volume 4, Annex 10.2: Summary of consultation relating to SLVIA (application ref: 6.4.10.2);
  - Volume 4, Annex 10.3: Simple Assessment (application ref: 6.4.10.3);
  - Volume 4, Annex 10.4: Visibility Data (application ref: 6.4.10.4);
  - Volume 4, Annex 10.5: SLVIA Legislation and policy context (application ref: 6.4.10.5);
  - Volume 6, Annex 10.4: Seascape, Landscape and Visual Impact Assessment (SLVIA) Figures (application ref: 6.6.10.4.1 et seq); and
  - Volume 6, Annex 10.5 SLVIA Visualisations (application ref: 6.6.10.5.1 et seq).
- 4 Volume 3, Chapter 8: Onshore Archaeology and Cultural Heritage is also informed by aspects of these documents (application ref: 6.3.8).



# 10.2 Statutory and policy context

- Volume 4, Annex 10.5: SLVIA Legislation and policy context includes a summary of legislation and national policy of particular relevance to seascape, landscape and visual amenity that have been taken into account in the chapter.
- The Local Planning Authorities have set out their own policy relating to landscape and visual matters, reflecting national policy but also setting out their own consideration of more local matters such as the protection of Sensitive Landscape Areas in the IoA, Gwynedd and Conwy.
- Reference has also been made to Snowdonia National Park Authority (2016). Supplementary Planning Guidance 14, Obtrusive Lighting (Light Pollution) in the assessment of night-time effects as set out in Section 10.12

## 10.3 Consultation and scoping

- 8 Consultation to date has been undertaken through pre-scoping consultation with an SLVIA, Cultural Heritage (CH) and Landscape and Visual Impact Assessment (LVIA) Expert Topic Group (ETG), the scoping process and through subsequent meetings and correspondence with members of the ETG, who represent statutory and non-statutory consultees in Wales.
- Due to the extent of the consultation that has taken place in relation to the SLVIA the detailed consultation tables, which include matters raised and where these are addressed in this chapter, are included in Volume 4, Annex 10.2: Summary of consultation relating to SLVIA (application ref: 6.4.10.2).



#### 10.3.1 Pre-scoping consultation

- A pre-scoping consultation meeting with the ETG took place in December 2019. It set out aspects of the application and Evidence Plan process, and the intended programme. An overview of the drafted scoping report, including the baseline, methodology for EIA, items to be scoped in (and out) and proposed mitigation measures were presented and feedback from the ETG was requested.
- In relation to site selection for the array area, NRW requested that more detailed information was provided across each of the disciplines in order to inform the site selection process. It was agreed by all parties that this is considered necessary to identify how mitigation measures would be included and how this may affect different topic receptors. It was also noted that involvement of stakeholders is important at an early stage in order to avoid key receptors.
- 12 NRW advised that it has commissioned a strategic assessment and guidance for Offshore Wind Farms Seascape and sensitivity to offshore wind farms in Wales: Strategic Assessment and Guidance (2019) which is presented across three documents.
- 13 Baseline data sources were agreed and should include LANDMAP, Isle of Anglesey AONB Management Plan and the assessments and studies associated with the Local Development Plans as well as the revised Snowdonia National Park Management Plan, when available.
- In relation to the Register of Historic Parks and Gardens in Wales, it was discussed that the Register should be available from Cadw to inform the PEIR but that effects on these as well as other relevant World Heritage Sites would be considered in the Cultural Heritage assessment.
- NRW noted that the Welsh Government's National Development Framework (Future Wales) is promoting renewable energy within the Conwy area and it was agreed to consider available information in the SLVIA.



- The list of viewpoints was discussed but was to be agreed following scoping and further consultation. Inclusion of a viewpoint at Penrhyn Castle was requested.
- 17 The methodology was described and a visualisation presented in accordance with SNH (2017) guidance was presented and agreed as suitable.
- NRW queried how Local Planning Authorities (LPA) without specialist landscape officers would engage with the process. Gwynedd Council noted that further discussion would be welcome on the arrangements for specialist consultants being employed to advise the LPAs. Arrangements have been put in place by the Applicant to facilitate this advice to the LPAs.
- 19 In a post-meeting note received on 15 January 2020, NRW advised the following:

"We consider indirect visual effects are of no lesser impact than direct effects and need to be given equally high consideration at the site selection, alternatives, layout and quantum of development appraisal stage.

This includes indirect visual effects upon Snowdonia National Park (wild, tranquil, remote qualities that come from open seascape setting and unaffected horizons), Great Orme Heritage Coast (wild, tranquil remote qualities that come from open seascape setting and unaffected horizons and views to the Isle of Man), Isle of Anglesey AONB (wild, tranquil remote qualities that come from open seascape setting and unaffected horizons), community outlook of many coastal tourist towns (the availability of open views that an undeveloped seascape provides) and the character of the north Wales coastline (the sense of a developed and industrialized NE coastline and a wilder, remoter and quieter NW coastline)."



## 10.3.2 Planning Inspectorate (PINS) Scoping Opinion

- The Applicant submitted a scoping report to the Secretary of State (SoS) on the 11 June 2020. This process is administered by the Planning Inspectorate (hereafter PINS). A scoping opinion was received in July 2021.
- 21 PINS did not agree that aspects of the SLVIA could be scoped out as proposed in the submitted scoping report without further evidence. However, PINS agreed that the scope of the SLVIA could be informed by further evidence provided during stakeholder consultation and the scope subsequently agreed with stakeholders. Alternatively, the ES should include assessment of these matters.
- 22 It was agreed by PINS that the impact of the offshore cable route construction, operation and decommissioning could be scoped out of the SLVIA.
- 23 PINS advised that it is content that, at distances greater than 50 km, significant effects are unlikely and agreed that this matter can be scoped out. The proposed 50 km radius Study Area was accepted.
- 24 PINS agreed that night-time impacts due to lighting of infrastructure within the array area on receptors where they are located east of Conwy or in England can be scoped out of the assessment as significant effects are unlikely to occur.

#### 10.3.3 Consultation to inform the PEIR

- Consultation following receipt of the scoping opinion and to inform the PEIR for the offshore infrastructure took place during the Coronavirus Pandemic with an Archaeology/ CH/ SLVIA ETG via video conference (Teams) held on the following dates:
  - 1 October 2020 general discussion on scope of SLVIA, baseline reference materials and rationalisation of viewpoints, visual materials and assessment;
  - ▲ January 2021 discussion on potential for SLVIA mitigation (pre-PEIR) through reduction in the array area; and



- △ 10 February 2021 discussion on Maximum Design Scenario (Rochdale Envelope) for purposes of SLVIA/ CH.
- 26 Following these meetings, as well as other correspondence and one-toone meetings/ discussions, the following was agreed for the PEIR:
  - Viewpoint locations and the visualisations and assessments to be included in the SLVIA, including four night-time viewpoints;
  - That sequential visual assessments on routes through the study area should focus on the Wales Coast Path (including Marine Drive around the Great Orme), Offa's Dyke Long Distance Route (LDR), National Cycle Route (NCR) 5 and the A55;
  - The potential for significant landscape character effects should be based on mapping of defined landscape character information with ZTV exercise. A tabular, preliminary landscape assessment to be used to identify the potential for significant landscape effect and therefore the areas to be included within the detailed assessment in the PEIR;
  - Effects on the AONBs and Snowdonia National Park to focus on an assessment of the effects on the Special Qualities, which should be supplemented by LANDMAP visual and sensory information. This to include consideration of the north-western extents of the Clwydian Range and Dee Valley AONB;
  - Area for Lease (AfL) to a boundary defined in the meetings/ information provided as Area A, J or H (or a combination of these) would be beneficial for SLVIA/ CH although it would not mitigate some SLVIA/ CH effects. The amendments suggested in the various scenarios are considered by NRW to reduce visual effects to a marginal degree, but not sufficiently to avoid likely significant effects at the various views within the Isle of Anglesey AONB and Snowdonia National Park. (See also Volume 1, Chapter 4 Site Selection and Alternatives);
  - That in general a regular layout of WTGs orientated rows with north-south and west-east alignments was the 'worst case' arrangement of the WTGs in most views; and



Potential use of the tallest WTGs was generally considered as the maximum design scenario for assessment due to their scale comparison with landform and existing WTGs. Some parties considered that the largest number of smaller WTGs could in some cases introduce different effects that could be significant. It was agreed that the SLVIA would primarily focus on the tallest WTGs but that for a number of agreed key viewpoints visualisations would also be prepared for the largest number of the smallest WTGs (hereafter described as Maximum Design Scenario B (MDS B). It was determined by the Applicant after the meeting that assessment of MDS B would also be included in the SLVIA and that this would include night-time assessment.

#### 10.3.4 Consultation to inform the ES

- 27 Following receipt of the Section 42 Consultation responses on the PEIR further CH/ SLVIA ETGs were held as follows:
  - 4 November 2021 to provide a summary of PEIR feedback received, and proposals on next steps for incorporation in the ES.
  - ▲ 14 December 2021 to agree the viewpoint list for the ES, present the proposed final boundary for application with associated design context; and to discuss, and invite feedback on proposed mitigation measures.
  - △ 27 January 2022 to discuss opportunities for mitigation/ compensation for impacts through other measures such as landscape enhancement.
- Volume 4, Annex 10.2: Summary of consultation relating to SLVIA sets out the specific consultation and key issues raised through the scoping and consultation process to date. Full details of consultation and scoping are included in a separate consultation report as part of the ES (application ref 5.1).



# 10.4 Scope and methodology

- The study area for the SLVIA has been agreed with PINS through the scoping process and includes a 50 km radius from the proposed array area boundary as shown on Figure 1. This is the area within which any likely significant effects on the seascape, landscape and visual resource would arise, including cumulative effects. This encompasses the offshore areas included within the Order Limits, including the linear offshore Export Cable Corridor (ECC) beyond the array boundary, up to and including the intertidal zone and defined as ending at the Mean High-Water Spring (MHWS).
- 30 The SLVIA covers the construction, operation and decommissioning of the offshore elements of AyM that are contained within the array area and the area identified as the other wind farm infrastructure zone, which would contain the meteorological mast and the associated undersea cabling. These are shown on Figure 1.
- 31 The SLVIA focusses on the areas that are likely to be affected by AyM both directly through physical changes to the seascape resource and indirectly through visibility of these changes which may affect the character of the seascape and landscape resource and the visual amenity of the surrounding area. Beyond the boundary of the array area and other wind farm infrastructure zone effects are most likely to arise where there is theoretical visibility of AyM. The SLVIA therefore focusses on areas with theoretical visibility as identified on Figure 2.
- Within the SLVIA study area, the assessment will focus primarily on the assessment of SL&V effects of AyM within Wales and the adjacent seascapes.
- 33 The SLVIA is informed by a review of the seascape, landscape and visual resource (SLVR) as it currently exists. Baseline data collection has been undertaken through desk study and analysis as well as field work carried out within the study area.



# 10.4.1 Desk study

34 The data sources relating to the SLVR that have been collected and used to inform this SLVIA are summarised in Table 1.

Table 1: Key sources of SLVR data.

SOURCE	SUMMARY	COVERAGE
Environs Partnership (2005). Seascape and Visual Impact Assessment Chapter of the GyM ES.	Assessment of the Seascape and Visual Impacts of GyM OWF. Viewpoint locations used in assessment.	GyM OWF SLVIA study area
Planning portals for Local Planning Authorities.	Provide details of onshore wind farm and other planning applications for other relevant energy development.	Study area
LANDMAP datasets, NRW	Geographically defined datasets providing information about the landscape, nature conservation, cultural heritage and visual/ sensory evaluation relating to the landscape.	Wales
White, Michaels, King for NRW (2019). Seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance. Stages 1-3.	Evidence base on the seascape and visual sensitivity to offshore wind farms in Wales.	Wales



SOURCE	SUMMARY	COVERAGE
NRW (2015) National Seascape Assessment for Wales. Evidence Report No: 80, 2015.	Provides national scale definition and descriptions of Marine Character Areas.	Welsh Inshore Waters which are defined as extending 12 nautical miles from the high- water mark.
LUC for Marine Management Organisation (MMO) (2018). MMO 1134: Seascape Character Assessment for the Northwest Inshore and Offshore marine plan areas.	Provides national scale definition and descriptions of Marine Character Areas.	English North- West Inshore and Offshore marine plan areas
Snowdonia National Park (2014) Snowdonia National Park Supplementary Planning Guidance 7: Landscapes and Seascapes of Snowdonia.	Seascape character assessment of SNP.	SNP
Fiona Fyfe Associates, with Countryscape and Bangor University (SEACAMS) for Isle of Anglesey Council with assistance from the Countryside Council for Wales (now Natural Resources Wales) (2013). Anglesey Seascape Character Assessment.	Seascape character assessment for Isle of Anglesey.	Seascape Character Types; Intertidal and Marine and Seascape Character Areas within Anglesey



SOURCE	SUMMARY	COVERAGE
NRW. National Landscape Character Areas (NLCA).	Definition and descriptions of national scale landscape character areas.	Wales
Natural England. National Character Areas (NCAs).	Definition and descriptions of national scale landscape character areas.	England
Isle of Anglesey Council (2011). Anglesey Landscape Character Assessment: Anglesey Landscape Strategy, Update.	Landscape character definition and descriptions for the landscape of IoA.	IoA
Gwynedd Council (2009). Supplementary Planning Guidance: Landscape Character.	Landscape character definition and descriptions for the landscape of Gwynedd.	Gwynedd
Conwy Borough Council (2014). Landscape Unit and Strategy Area Maps.	Mapping of landscape character types and units for the landscape of Conwy.	Conwy
Conwy Borough Council (2014). Conwy Local Development Plan 2007- 2022, Supplementary Planning Guidance LDP11: Landscape Sensitivity and Capacity Assessment for Onshore Wind Turbine Development.	Landscape character definition and descriptions for the landscape of Conwy.	Conwy



SOURCE	SUMMARY	COVERAGE
Conwy County Borough Council and Denbighshire County Council (2013). Conwy and Denbighshire Landscape Sensitivity and Capacity Assessment for Wind Energy Development.	Defines landscape character types and units.  Provides descriptions of key characteristics.	Conwy and Denbighshire
Snowdonia National Park (2014). Supplementary Planning Guidance 7: Landscapes and Seascapes of Snowdonia.	Defines landscape character and seascape character areas.  Provides descriptions of key characteristics.	SNP
Isle of Anglesey Council, NRW and Craggatak Consulting (2014). The Isle of Anglesey Area of Outstanding Natural Beauty, Management Plan Review 2015-2020.	Sets out descriptions of the resources within the AONB and how they are to be managed.	loA
Snowdonia National Park Management Plan 2010- 2015.	Sets out descriptions of the resources within the NSP and how they are to be managed.  Provides details of the defined Special Qualities of the SNP.	SNP
Snowdonia National Park Partnership Plan 2020. (Consultation draft).	Sets out revised descriptions of the resources within the NSP and how they are to be managed.	SNP



SOURCE	SUMMARY	COVERAGE
	Provides revised details of the defined Special Qualities of the SNP.	
Supplementary Planning Guidance Note – Clwydian Range and Dee Valley Area of Outstanding Natural Beauty (AONB).	Sets out descriptions of the resources within the AONB and how they are to be managed.	Clwydian Range and Dee Valley AONB.
Clwydian Range and Dee Valley AONB Management Plan 2014-2019.	Sets out descriptions of the resources within the AONB and how they are to be managed.  Provides details of the defined Special Qualities of the AONB.	Clwydian Range and Dee Valley AONB.
Conwy County Borough Council. Great Orme Country Park and Local Nature Reserve Management Plan. 2011- 2016.	Sets out descriptions of the resources of the Great Orme and how they are to be managed.  Provides details of what is considered to make the landscape special and valued.	Great Orme
SNP (2016). Supplementary Planning Guidance 14: Obtrusive Lighting (Light Pollution).	Defines the Snowdonia Dark Skies Reserve.	SNP
Tranquillity mapping (2009).	Mapping of relative tranquillity.	Wales



SOURCE	SUMMARY	COVERAGE
University of Leeds Wildland Research Institute (2014). Wildness Study in Wales, Final Report.	GIS approach to the mapping of wildness in Wales.	Wales
Met Office (2021). Visibility data, Rhyl Station No. 2 – Jan 2011-Dec 2020.	Visibility frequency and percentages over a 10-year period at distances of < 70 km.	Rhyl Station
Historic England 'Register of Parks and Gardens of Special Historic Interest in England'. On-line resource that can be accessed through the National Heritage List for England (NHLE).	Lists and describes the Register of Parks and Gardens of Special Historic Interest in England.	England
Registered Landscapes of Historic Interest in Wales, NRW online dataset.	Lists and describes the Register of Parks and Gardens of Special Historic Interest in Wales.	Wales
Crown Estate (2021). Offshore Wind Leasing Round 4 Selected Projects.	Dataset defining Round 4 areas.	Welsh and English waters.
OS datasets – 1: 250,000 mapping, 1: 50,000 mapping Terrain 5 DTM, Local Unitary Authority, Railway track/ tunnels, Roads.	Base mapping of information.	Study area



SOURCE	SUMMARY	COVERAGE
NRW datasets – AONB, NLCA, MCA, LANDMAP visual and sensory, Country Parks, Heritage Coast, Tranquillity classification (2009).	Defines boundaries and provides classification information as well as mapping the landscape as perceived through our senses based on the physical attributes of landform and land cover.	Study area
Cadw dataset - Registered Historic Parks and Gardens.	Definition of boundaries.	Wales
Isle of Anglesey Landscape Character dataset, Isle of Anglesey.	Definition of boundaries.	loA
Clwydian Range and Dee Valley AONB dataset.	Definition of boundaries.	loA
Conwy and Denbighshire Landscape Character data -Conwy and Denbighshire.	Definition of boundaries.	Conwy and Denbighshire
Natural England datasets – LCTs, NLCAs and Country Parks (England)	Definition of boundaries.	England
SNP datasets – Landscape character.	Definition of boundaries.	Wales



SOURCE	SUMMARY	COVERAGE
CPRE dataset – Baseline light pollution.	Dataset showing how much light is spilling up into the night sky across Great Britain.	Study Area
UK government – National parks dataset.	Defines National Park boundaries.	UK

- 35 Guidance relevant to SLVIA is set out in the following documents:
  - Landscape Institute and IEMA (2013) Guidelines for Landscape and Visual Impact Assessment: Third Edition (GLVIA3);
  - Landscape Institute (2019). Visual Representation of Development Proposals;
  - ▲ Landscape Institute (2021) Technical Guidance Note 02-21 'Assessing the Value of Landscapes outside National Designations'
  - Natural England (2012). An Approach to Seascape Character Assessment;
  - Natural England (2014). An Approach to Landscape Character Assessment;
  - Natural Resources Wales (2021). Guidance Note 046 Using LANDMAP in Landscape and Visual Impact Assessments (LVIA)
  - Planning Inspectorate (2018) Advice Note Nine: Rochdale Envelope;
  - Planning Inspectorate (2019). Advice Note Seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects Version 2
  - NatureScot (2012). Assessing the Cumulative Impact of Onshore Wind Energy Developments;
  - NatureScot (2017) Siting and Designing Windfarms in the Landscape, Guidance (Version 3): and
  - NatureScot (2017) Visual Representation of Windfarms, Guidance (Version 2.2) (herein referred to as 'NS Visual Representation').



Although some of this guidance has been derived from publications by bodies located in other UK nations it is commonly drawn on for work carried out in Wales where no equivalent guidance exists. The preparation of visual representations that accord with this SNH guidance has been agreed with stakeholders as part of the SLVIA ETG consultations.

## Operational Energy Development Baseline

37 The SLVIA considers the effects of the offshore elements of AyM in addition to a baseline of operational projects/ energy developments as shown in Figure 1. This includes OWFs as listed in Table 17.

## 10.4.2 Field Survey

- Field survey work was undertaken during periods of clear and mixed visibility between November 2019 and May 2021. This has allowed the seascape/landscape character and visual amenity of the study area to be experienced in a range of different conditions and seasonal variation. Field surveys were carried out throughout the study area, although the focus was on the areas shown on the ZTV, viewpoints and specific visual receptors, particularly the settlements and the Wales Coast Path, to gain an understanding of actual visibility of the offshore elements of AyM in the context of the operational OWF. The field survey allowed for judgements to be made on the likely scale, distance, extent and prominence of the AyM array area.
- The seascape/ landscape of the study area was assessed for any features that contribute to the wider seascape and landscape setting. The field surveys provided an experience of the character areas of the study area and verification of how these areas might be affected by the offshore elements of AyM.



The visual amenity of the study area was surveyed including both static and sequential views, from receptors representative of the range of views and viewer types likely to experience the offshore elements of AyM. Views from a variety of distances, aspects, elevations and extents were included. Receptor types include settlement; main transport routes; main visitor locations; areas of cultural significance and a range of landscape character areas within the study area.

## 10.4.3 Simple assessment

- The inclusion of receptors in the detailed assessments set out in this chapter is informed and defined by Annex 10.2: Simple Assessment (Volume 4) (application ref: 6.4.10.2). A simple assessment of the seascape, landscape and visual receptors in the study area has been undertaken using plan figures and zone of theoretical visibility (ZTV) analysis based on Maximum Design Scenario A (MDS A) (Volume 6, Annex 10.5 (application ref: 6.6.10.5))), visualisations (Volume 6, Annex 10.5) and site survey, to identify which of these receptors are likely to be affected by the construction, operation and decommissioning of the offshore elements of AyM.
- Where receptors are assessed in the Simple Assessment as having no potential for a significant effect, they have been scoped out of the detailed assessment contained in this chapter.

# 10.5 Assessment criteria and assignment of significance

43 Reference should be made to the SLVIA methodology set out in Volume 4, Annex 10.1.



# 10.6 Uncertainty and technical difficulties encountered

- It is not possible to visit every part of the study area when undertaking an SLVIA and therefore some aspects of the assessment are based on desk-based study and professional experience. The period over which the SLVIA has been undertaken has coincided with the restrictions put in place to reduce transmission of the COVID-19 virus. This reduced the period over which field work was possible and has restricted access to certain areas for long periods reducing the opportunities to align suitable weather conditions and access.
- As the final locations and scale of the offshore elements of AyM have not been fixed at this stage in the planning process, maximum design scenarios (MDS) have been adopted for the SLVIA assessment. The main assessment is of MDS A, which includes the largest WTGs and the maximum number of these proposed; this has been agreed with stakeholders through ETG meetings. In addition, a 2<sup>nd</sup> scenario (MDS B) is also represented for key viewpoints along with assessment of this scenario. This is in order that a fuller understanding of the SLV effects of such a scenario is provided.

## 10.7 Existing environment

#### 10.7.1 Current baseline

This section of the SLVIA provides an overview of the baseline of seacape, landscape and visual environment within the SLVIA study area. The detailed baseline descriptions and evaluation of individual receptors that are identified as having the potential to be significantly affected by the offshore elements of AyM are included in Section 10.10 of this chapter in order to avoid repetition and to ensure that all information relevant to the effects on the receptors is contained in one place, for ease of understanding.



## 10.7.2 The array

- The array area covers an area of 78 km<sup>2</sup> located within open sea to the west of the operational GyM OWF. It sits to the north of Conwy off the North Wales coast at a distance of 10.6 km from the nearest point at Little Ormes Head.
- The NRW (2015) National Seascape Assessment for Wales defines the seascape where the AyM array and the most northerly part of the ECC are located as being 04: North Wales Open Waters (Figure 4). This Marine Character Area (MCA) covers the outer inshore waters of North Wales, coinciding broadly with the coastline stretching from the outer fringes of the Dee Estuary in the east to north-west Anglesey in the west.
- The key characteristics of this part of the seascape are set out in the NRW (2015) report as follows:
  - An offshore MCA where depth increases gradually from approximately 15m below chart datum near Conwy Bay to over 60m in the northwest.
  - A thin layer of mostly coarse quaternary sediments overlying Carboniferous and Triassic sedimentary bedrock. Finer sand is found in the southeast of the MCA.
  - Includes a significant proportion within the Liverpool Bay SPA and Menai Strait and Conwy Bay SAC.
  - A rich variety of life on the seabed and high levels of phytoplankton in the water provides important feeding grounds for sea birds, particularly in the south east. Marine mammals including bottlenose dolphin and grey seal can be sighted.
  - A Moderately strong east-west tidal currents. The strongest currents are found in the southwest.
  - A number of wrecks can be found in the MCA, including collisions owing to busy approaches to the Mersey, wartime losses, and losses from mine-laying activity.
  - Dominant maritime character is one of transit: recreational vessels entering or leaving the Menai Strait/ Conwy Bay, or commercial vessels passing east and west to and from the Mersey and Dee.
  - Includes the former Mersey Docks and Harbour Board's spoil dumping ground in the northeast corner.



- Large fishing boats target demersal fish and scallops offshore with smaller potting boats seen closer to the coast.
- Gwynt y Môr offshore wind farm dominates the east of the MCA, and to the north – access is restricted around the Douglas Oil Field (marked by a series of lit buoys and shipping lanes depicted on marine charts).
- Commercial shipping seen offshore, including large vessels waiting for Liverpool Pilots to guide them safely into port. Recreational boats are a feature particularly in the southeast of the MCA during the warmer months.
- Several wrecks are visited by recreational divers and diving clubs, including the HMS Derbent, Cartagena, Kincorth, Delfina, Cork and Vigsnes. The wreck of the Resurgam is a designated wreck.
- The landward view changes considerably throughout the MCA, with rocky headlands, islets and large bays found to the west and the large shallow opening of Conwy Bay to the east, with a backdrop of the mountains of Snowdonia.'
- Along the coastline there lies a varied coast of bays, flats and estuaries.
- Within the regional level seascape characterisation Figure 5 shows that the AyM array area lies across a small part of SCA 28: North-east of Anglesey with the majority of the AyM array area within the SCA F: North Wales Open Waters. Baseline descriptions of these SCAs are contained in Section 10.10.
- The seascape and coastal areas to the south-east of the Study Area are influenced by the presence and visibility of the Rhyl Flats, North Hoyle, Burbo Bank and Burbo Bank Extension offshore wind farms in addition to Gwynt y Môr.

# 10.7.3 The export cable corridor

The northern part of the ECC is located within MCA 04: North Wales and also extends south-east past the Rhyl Flats OWF across an area defined at a national level as MCA 02: Colwyn Bay and Rhyl Flats.



Within the regional level seascape characterisation Figure 3 shows the ECC extending from SCA F: North Wales Open Waters through a small extent of SCA B: Colwyn Bay and through SCA C: Vale of Clwyd where it reaches landfall. Baseline descriptions of these SCAs are contained in Section 10.10.

## 10.7.4 Study Area

## Seascape character

- The majority of the Study Area is covered by the sea. Following the approach set out by Natural England (Natural England, 2012, p7, Box 1) the National Seascape Assessment for Wales includes the Welsh Inshore Waters, which are defined as extending 12 nautical miles from the highwater mark. The Welsh National Marine Character Areas are complemented by the existing National Landscape Character Areas, which extend to the low water mark to provide seamless character assessment coverage between land and sea.
- In order to ensure consistency with this approach and baseline characterisation and to include the intertidal area between the mean low and high-water mark, the SLVIA will assess seascape effects on Seascape Character Areas (SCAs) that are seaward of the high-water mark, which include beaches and intertidal areas. Landscape effects will be assessed on Landscape Character Areas (LCAs) lying to the landward side of the low water mark and coastlines within LCAs covering the coast and those LCAs covering inland terrestrial areas with views of the AyM OWF that may materially alter its character.
- At a national scale, the Welsh part of the Study Area is covered by the National Seascape Assessment for Wales Natural Resources Wales (NRW) Evidence Report No: 80, 2015. This identifies and describes the MCAs within Welsh waters as shown on Figure 4 (Annex 10.5).
- In addition, NRW has published the Seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance (White, S. Michaels, S. King, H, 2019).



- At a more local scale, the Anglesey Seascape Character Assessment covers Seascape Character Types (Terrestrial (tSCTs); Intertidal (iSCTs) and Marine (mSCTs) and Seascape Character Areas. Snowdonia National Park has also prepared a Seascape Character Assessment entitled Snowdonia National Park Supplementary Planning Guidance 7: Landscapes and Seascapes of Snowdonia, 2014. These areas are shown on Figure 5.
- To the west of Colwyn Bay and including the Great Orme, the Seascape Character Areas defined in the Anglesey Seascape Character Assessment are used as the primary source for the mapping of the seascape character (Figure 5). To the east of this, within Wales, the assessment maps seascape character areas based on the National Marine Character Areas for Wales and broadly follows the subdivisions of coastal character used in the Gwynt y Môr ES. The baseline information is supplemented with information drawn from the Seascape Character Types descriptions included in the Anglesey Seascape Character Assessment and the information included in the Snowdonia National Park Supplementary Planning Guidance 7.
- A national level seascape character assessment for the English sector of the Study Area has been prepared for the Marine Management Organisation (MMO) namely MMO 1134: Seascape Character Assessment for the North West Inshore and Offshore marine plan areas, 2018. This information is used to inform the assessment of the effects on the seascapes of the English Marine Plan area (Figure 4).
- The assessment identifies MCAs as shown on Figure 4. The closest MCA to the AyM array area is MCA 38: Irish Sea South (England). This MCA lies in the eastern Irish Sea, between the coasts of England, Wales and the Isle of Man. It lies 15 km offshore at its closest point, off Walney Island. Its overall character is described in MMO (2018) as:



- 'The southern part of the Irish Sea is a busy area, with multiple offshore activities including fishing, main shipping routes, oil and gas extraction and dredging. Offshore wind farms extend into the north-west of the MCA. These activities also influence the night-time character with lighting on the main offshore platforms and wind turbines across the area. The sea is shallow, generally less than 40m deep, and is sheltered with low tidal flows. Due to the intensity of human activity there is limited nature conservation interest, though the mud and sand in the less disturbed north of the area provides key subtidal habitats. The offshore area is distant from low-lying coasts, and is not widely visible except from the ferry routes which link England with Ireland and the Isle of Man, although it is overlooked in distant views from the Lake District fells.'
- The other MCA at relatively close proximity to the AyM array area is MCA 35: Inner Liverpool Bay. It is an intermediate area between open sea to the west and the inshore area of flats and banks approaching the Mersey and Dee estuaries. Its overall characteristics are described as:
- 'This MCA sits over 5 km from the low-lying coasts to south and east. It lies in the infralittoral area of shallower waters, where freshwater influence boosts the numbers of marine organisms and helps to support fish stocks and coastal seabird populations. The area is on the main approach to the Mersey from across the Irish Sea, so is much used by shipping heading for the Queens Channel (see MCA 36: Dee and Mersey Estuaries and Coastal Waters). Ferries to the Isle of Man and Ireland pass through this area. Other human activity includes dredging and, historically, dumping of dredged material. The northern part of the area is within the Liverpool Bay oil and natural gas field, and offshore wind farms have been developed in recent years. Although offshore, the area is overlooked from the settled, low-lying coasts of the Wirral and Sefton.'



## Landscape character

- The landscape character of the Study Area is highly varied and derived largely due to its diverse underlying geology and resulting landform as shown on Figure 3 (Annex 10.5). In the west lies the Isle of Anglesey which is characterised by a diverse scenic coastal strip in the east with relatively limited development, cliffs and bays. The interior forms the agricultural core of the island. Although described as a gentle lowland landscape, the south-west to north-east geological trend of fault lines influence changes in topography, with a number of hills and rock outcrops.
- 67 Separating the Isle of Anglesey and the Menai Strait from the Snowdonia foothills lies the Arfon lowland area that runs from the north-east to the south-west. The upland area of Snowdonia reaches almost to the coast. This is an extensive, rural upland area, broadly coinciding with the Snowdonia National Park. It is dominated by mountain ranges of which the Snowdon massif rises to be the highest peak in England and Wales. The ranges extend into the Study Area and include the Carneddau and Glyderau.
- To the east of the Snowdonia upland area lies the landscape of the Conwy Valley, which is the valley of Wales' longest tidal river. The valley effectively forms the border between the north-east and the north-west of Wales. This landscape area extends to the coast and forms the northern edge of Snowdonia around Conwy Bay.



- To the north, the North Wales Coast extends from the prominent headland of the Great Orme in the west to the Point of Ayr in the east. This stretch of coastline is indented by a number of bays many of which are characterised by towns and villages that are popular with tourists. Further inland, the land rises providing containment to the coast and less developed uplands. This is with the exception of the lower lying Vale of Clwyd which runs away from the coast set below the Clwydian Range which runs in a similar north south direction further to the east. The Clwydian Range separates the lower lying valley landscapes of Deeside and Wrexham which form the most easterly extent of Wales in the North. On the other side of the estuary of the River Dee lies the more highly developed English coastline which includes the extensive settlements of Birkenhead and Liverpool on either side of the Mersey. The Study Area includes the English coast as far north as Blackpool.
- There is a hierarchy of published Landscape Character Assessments that describe the baseline landscape character of the landscape in the SLVIA Study Area, at the National and local level.
- 71 The Welsh and English Landscape is classified at the national level by National Landscape Character Areas (NLCA) and National Character Areas (NCAs) respectively. The descriptive profiles for the 48 individual NLCAs identified and described in Wales by NRW highlight what distinguishes one landscape from another, with reference to their regionally distinct natural, cultural and perceptual characteristics. Similarly, the 159 NCAs, which cover England, have been revised and developed by Natural England into NCA profiles, which provide a recognised, national, spatial framework. These are shown on Figure 6.
- The landscape of the onshore parts of the Study Area within Wales is described and assessed in relation to the following documented landscape character assessments and other reference material:
  - Anglesey Landscape Character Assessment: Anglesey Landscape Strategy, Update (2011);
  - Gwynedd Council Supplementary Planning Guidance: Landscape Character (2009);
  - Conwy Borough Council Landscape Unit and Strategy Area Maps 2014;



- Snowdonia National Park Supplementary Planning Guidance 7: Landscapes and Seascapes of Snowdonia, 2014;
- Snowdonia National Park Supplementary Planning Guidance 13: Landscape Sensitivity and Capacity Assessment, 2016; and
- Supplementary Planning Guidance Note Clwydian Range and Dee Valley Area of Outstanding Natural Beauty (AONB).
- Subdivision of the landscape into Landscape Character Types (LCTs) and Landscape Character Areas (LCAs) accords with these baseline documents and is shown on Figures 7a and 7b.
- In addition, LANDMAP visual and sensory data (Figure 9), Tranquillity Classification derived from the mapping undertaken in 2009 (Figure 10b), Light Pollution Mapping (Figure 10a) and field surveys are also referenced in describing and evaluating the landscape.

## Landscape Planning Designations and defined areas

- The offshore elements of AyM are not within the boundary of any area subject to international, national or regional landscape designation intended to protect landscape quality.
- Certain landscapes found within the onshore parts of the Study Area have been designated or defined due to their scenic or historic landscape qualities. Some of their defined special qualities relate to their setting, which may include seascape. These areas are shown on Figure 8 and with the ZTV at A1 on Figure 18 (Annex 10.5).
- Of particular importance to this SLVIA are the Anglesey Area of Outstanding Natural Beauty (AONB), Clwydian Range and Dee Valley AONB, and Snowdonia National Park, which are located at distances of 16.9 km, 23.4 km and 16.6 km from the AyM array area respectively. The following documents will inform the understanding of the baseline characteristics and in particular the special qualities associated with these areas.
  - The Isle of Anglesey Area of Outstanding Natural Beauty (AONB) Management Plan Review 2015-2020;
  - Clwydian Range and Dee Valley AONB Management Plan 2014-2019; and



- Snowdonia National Park Management Plan 2010-2015.
- The Snowdonia National Park Partnership Plan 2020 has been through public consultation stage. It will supersede the 2010-2015 Plan, once adopted, and its current materiality is taken into account with aspects of it referenced in relation to the defined special qualities of SNP.
- 79 The heightened value associated with these areas is used as a component of sensitivity in the assessments of the effects on the seascape, landscape and visual resource.
- 80 SNP (2016) has defined the Snowdonia Dark Skies Reserve in Supplementary Planning Guidance 14: Obtrusive Lighting (Light Pollution). This effectively provides policy and guidance for the designated area to protect it from the adverse effects of lighting and is shown on Figure 10a (Annex 10.5).
- There are several areas within the Study Area that have been defined as Heritage Coast. On the Isle of Anglesey, these coincide with northerly parts of the Isle of Anglesey AONB coastline. The SLVIA assesses the effects of the offshore elements of AyM on the special characteristics and qualities of the Anglesey Heritage Coast as part of the assessment of the effects on landscape character, which also include consideration of the Anglesey AONB.
- There is a further area of Heritage Coast covering the Great Orme, which is not part of an AONB. There are no statutory requirements or powers associated with the Heritage Coast definition. However, an assessment of the effects of the offshore elements of AyM on the Great Orme Heritage Coast is included in Section 785 with reference to the Conwy Local Development Plan and the Great Orme Country Park and Local Nature Reserve Management Plan 2011-2016.



- There are several Registered Parks and Gardens (RPG) in the English parts of the Study Area, the closest of which to the AyM array area is Flaybrick Memorial Gardens located in Birkenhead at a distance of approximately 38 km from the array area. The key reference material for consideration of these receptors is the Historic England 'Register of Parks and Gardens of Special Historic Interest in England'. This is an on-line resource that can be accessed through the National Heritage List for England (NHLE) in Cadw has prepared a Register of Historic Parks and Gardens (HPG) in Wales and this is used to inform the SLVIA. These properties are shown on Figure 8 (Annex 10.5).
- The SLVIA undertakes assessment of the visual effects on the registered HPG and RPG only where access to the public is provided. The Cultural Heritage assessment in the EIA will consider the effects on the historic and cultural aspects of the properties where relevant HPG and Registered Landscapes of Historic Interest in Wales will be considered as part of the Cultural Heritage assessment in Volume 3, Chapter 8: Onshore Archaeology and Cultural Heritage.
- Special Landscape Areas have been designated locally by Conwy Borough Council, Isle of Anglesey County Council and Gwynedd Council through their Local Development Plans (LDP). These are shown on Figure 8 and the associated value of the landscape resource within these areas will be taken into account in the assessment of sensitivity.
- 86 Descriptions of the key landscape planning designations and defined areas are included below.



#### Snowdonia National Park

- The Snowdonia National Park (SNP) covers 139 square km and stretches from Cardigan Bay's shoreline in the west to Dinas Mawddwy and the Aran mountains in the east, and from the River Dyfi and its estuary in the south to the North Wales coast as far as Conwy. Important not only for its natural beauty, wildlife and cultural heritage value but also in relation to the understanding and enjoyment of this by the public as well as its contribution to the economy of Wales.
- 88 SNP takes its name from Snowdon which, at 1085 m is the highest peak in Wales. The name Snowdonia is synonymous with a dramatic and varied landscape with spectacular mountain scenery which includes many peaks over 915 m (3000 ft).
- 89 In addition, Snowdonia offers coastal vistas such as those on the Ardudwy coast, includes extensive moorlands typified by the Migneint, and is punctuated with classical glacial valleys.
- 90 Cynllun Eryri The Snowdonia National Park Partnership Plan 2020 outlines the nine identified Special Qualities of SNP. These are listed below:
  - 'Diverse landscapes;
  - Community cohesion;
  - Vibrancy of the Welsh Language;
  - Inspiration for the arts;
  - Tranquillity & solitude Peaceful Areas;
  - Extensive recreation opportunities:
  - Historic landscapes;
  - Renowned geology; and
  - Internationally important species & habitats'.
- 71 The Plan also helpfully defines Special Qualities as:

'The combination of distinctive features of each National Park that led to these areas being designated to be protected.'



## Isle of Anglesey AONB

- The areas designated as AONB in Anglesey are approximately 83 square miles (221 km²) in extent and lie along much of the 201 km long coast of the island with breaks around some of the urban areas and in the vicinity of Wylfa. The coastline of Anglesey, many stretches of which are isolated, contributes much to the island's sense of place. Rugged cliffs, sandy bays, marshes, dunes, the sheltered shores of Menai Strait and the windswept slopes of Holyhead and Bodafon mountains give great variety of scene.
- The IoA AONB is a popular area for a variety of forms of recreation by local people and visitors. The Isle of Anglesey AONB Management Plan Review (MPR) 2015-2020 notes that the 'majority are attracted by the quality and number of sandy beaches and beauty of the coastal landscape.' It also notes that:
  - 'No major industrial development is situated within the AONB, however, a nuclear power station; former aluminium smelting plant, and an RAF Training Base are located on the boundary of the designation. There is a focus on Anglesey becoming an energy development Island both in Nuclear and Alternative Energy which may include large scale offshore wind farms, marine turbines and solar farms. The proximity of these industries to the AONB and the need to bring the energy ashore highlights their influence on both the landscape and the seascape of the AONB, and also the pressure from development in close proximity to the countryside and coast.'
- The MPR lists out 18 different resources that are said to form components of the AONB and combine with the activities (pressure, changes and trends) representing the diverse economic and social elements of the AONB and its communities to make each AONB distinctive and nationally important. These resources are defined as the features and special qualities of an area which define the AONB's character. The features are found in Table 3 of the MPR and are as follows:
  - Natural Environment
    - Landscape/ Seascape
    - Biodiversity



- Geology and Geomorphology
- Soil
- Air
- Water
- Statutory Wildlife Sites

#### Cultural

- Historic Landscapes
- Historic Parks and Gardens
- Historic Buildings
- Scheduled Ancient Monuments
- Non Scheduled Archaeological Sites
- Welsh Language and Traditions
- Dark Skies
- Tranquillity
- Recreational
  - PROW
  - Accessible land and water
- The Isle of Anglesey AONB MPR sets out the fourteen Special Qualities as listed below.
  - '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.
- Accessible Land and Water.'
- The MPR introduces a number of guiding documents and objectives along with policies that are to be used to guide the management of the AONB. Together these form the strategic plan for the AONB 2015-2020.

## Clwydian Range and Dee Valley AONB

- 97 This is described in the AONB management plan as 'the dramatic upland frontier to North Wales embracing some of the country's most wonderful countryside. The Clwydian Range is an unmistakeable chain of heather clad summits topped by Britain's most strikingly situated hillforts. Beyond the windswept Horseshoe Pass, over Llantysilio Mountain, lies the glorious Dee Valley with historic Llangollen a famous market town rich in cultural and industrial heritage.'
- The Special Qualities of the Clwydian Range and Dee Valley AONB are set out in the Management Plan 2014-2019 as listed below.
  - Landscape Character and Quality.
    - Tranquillity.
    - Remoteness and Wildness, Space and Freedom.
  - Habitats and Wildlife.
    - Heather Moorland and Rolling Ridges.
    - Broadleaved woodlands and Veteran Trees.
    - River Valleys and the River Dee.
    - Limestone grasslands, cliffs and screes.
  - Historic Environment.
    - Historic Settlement and Archaeology.
    - Industrial Features and the World Heritage Site.
    - Historic Defence Features.
    - Small historic features.
    - Traditional boundaries.
  - Access, Recreation and Tourism.
    - Iconic Visitor and Cultural Attractions.



- The Offa's Dyke National Trail and Promoted Routes.
- Culture and People.
  - The Built Environment.
  - People and Communities."

# Isle of Anglesey Heritage Coast

- 79 The sections of Heritage Coast amounting to approximately 50 km of the coastline are:
  - North Anglesey;
  - Holyhead Mountain; and
  - ▲ Aberffraw Bay.
- 100 These areas are concurrent with sections of the coast that are included in the IoA AONB.

## Great Orme Heritage Coast

101 A prominent headland lying at the north-western tip of the Creuddyn Peninsula near Llandudno. Conwy County Borough Council manages most of the site as a Country Park and Local Nature Reserve, this comprises a headland of Carboniferous limestone of some 291 hectares which rises from sea level to 207m at the summit. In addition to its importance for nature conservation and archaeology, the Great Orme has been important for tourism and recreation since early Victorian times and receives a high level of recreational use.

#### Visual resource

The principal visual receptors in the Study Area are found along the closest sections of the North Wales coastline. These include people within settlements, driving on roads, visitors to tourist facilities or historic environment assets and people engaged in recreational activity such as those using walking and cycle routes. Visual receptors are shown on Figure 11 (Annex 10.5).



- 103 Many such receptor groups are represented by the viewpoints included in the detailed assessment. In addition, specific assessment of the effects on views from residential areas of settlements and from routes such as the Wales Coast Path are included.
- The SLVIA focuses on the receptors located within areas from where they may gain views of the AyM OWF. The starting point for understanding potential visibility is ZTV mapping.
- The visual baseline is largely defined by the blade tip ZTV shown in Figure 12a and in more detail in A1 Figures 17-1a-e (Annex 10.5).
- The ZTV shows the main area in which the AyM OWF would theoretically be visible, highlighting the different groups of people who may experience views of wind turbines located within the array area and assisting in the identification of viewpoints where they may be affected.
- 107 The SLVIA primarily assesses the MDS A project envelope which is considered to have the maximum effect on seascape, landscape and visual receptors.
- As agreed with ETG members during Evidence Plan consultation, figures and visualisations from key viewpoints showing the MDS B scenario are also included and assessed. In addition, the night-time viewpoints include visualisations of both MDS A and MDS B.
- The ZTV overlaid on OS mapping shows that the main areas of theoretical visibility of the AyM OWF will be across the open sea and along the Conwy and Isle of Anglesey coastlines and the immediate hinterland, which includes SNP. The closest areas of theoretical visibility of the Awel y Môr OWF will be from the Little Ormes Head at approximately 10.5 km from the AyM array area.
- There is also shown to be theoretical visibility at a slightly greater distance from the coastline and sands of Gwynedd.
- Further east within Wales there is theoretical visibility from along the coasts of Denbighshire and Flintshire and along the high ground formed by the Clwydian Range and the estuary of the River Dee.



- In the eastern part of the Study Area, the ZTV is shown to extend across much of the English coast and the settlements and urban areas located along it. The closest point is around Hoylake at a distance of approximately 30 km from the AyM array area.
- 113 The viewpoint locations as well as the extent of the visualisations and assessment associated with them were agreed through the scoping process and with the SLVIA and Cultural Heritage consultees in the ETG in advance of the PEIR preparation.
- Part of the ETG process was to narrow down the number of viewpoints suggested during scoping. This was in order to ensure that sufficient information was provided but also to ensure proportionality, commensurate with the scale and nature of the development proposal and its likely significant effects.
- 115 GLVIA3 acknowledges at Paragraph 6.19 that 'larger numbers of viewpoints cannot all be included individually and where the significant effects are unlikely to differ'. No guidance is provided in GLVIA3 on the appropriate number of viewpoints. However, it is noted that 'The viewpoints used need to cover as wide a range of situations as is possible, reasonable and necessary to cover the likely significant effects'.
- NatureScot (2017) notes at paragraph 84 that 'After reducing the number or viewpoints to those that are required to illustrate the ES, it is common for there to be around 10-25 viewpoints within an LVIA in Scotland. However, this number will vary depending on the specific circumstances of a proposal. Over-provision of viewpoints can be as unhelpful as under-provision. This is because an excessive number of viewpoints may distract from the smaller number of viewpoints where impacts may be significant. An appropriate balance may be struck through the LVIA consultation process to agree a proportionate number of viewpoints.'
- 117 A reason for dropping a viewpoint in order to reduce the number of viewpoints is given at paragraph 85 as 'where two viewpoints illustrate similar effects.'



- It is recognised that the AyM SLVIA study area includes a broad range of land-based, receptors with recognised higher sensitivities. However, relative to other offshore wind farm SLVIAs there was a very large number of viewpoints identified for PEIR. Therefore, through pre-PEIR consultation it was agreed that the viewpoints would be included as either representative or illustrative seascape, landscape and visual viewpoints, viewpoints that are associated with the effects on the settings of cultural heritage features and assessed in Volume 3, Chapter 8: Onshore Archaeology and Cultural Heritage and locations of interest in relation to the tourism assessment included in Volume 3, Chapter 4: Tourism and Recreation of the PEIR (application ref: 6.3.4). The viewpoint numbering is not consecutive and there are some numbers missing as these have remained as originally identified.
- 119 Representative viewpoints are used to represent an area where there may be a variety of receptors and where significant effects may arise. These are assessed in full within the SLVIA. Illustrative viewpoints are provided for further specific locations/ receptors and are used to inform various aspects of the SLVIA, such as sequential assessment, but are not assessed in full in the SLVIA.
- The Section 42 consultation responses included a request by Mostyn Estates' landscape architects for further viewpoints to be included and alteration of some viewpoint locations. In addition, it was requested that many more of the viewpoints should be assessed in full. The suggested changes have been reviewed and as a result two further illustrative viewpoints have been added one on Llandudno promenade and one on the Great Orme. Viewpoint 58 on Little Orme has also been moved off the Wales Coast Path to the trig point on the summit following agreement with the ETG. Viewpoint 15: Great Orme Cafe is assessed in the ES in full as a representative viewpoint. The locations of these viewpoints and the associated visualisations are included in Annex 10.6.
- Other suggested changes/ additions made by Mostyn Estates to the viewpoints included or assessed have not been incorporated in the ES as they are not considered to add anything further to the understanding of the likely significant effects.



- Whilst no specific marine users have expressed a concern over the views 122 from the sea towards the AyM OWF, NRW requested the addition of offshore viewpoints to illustrate the views from the seascape towards SNP and Isle of Anglesey AONB in order to provide them with a greater level of understanding. Consultation via a subsequent meeting with NRW and correspondence has resulted in two visualisations being prepared and included to illustrate views from locations along the Liverpool to Dublin ferry route. Due to the potential difficulties of obtaining baseline photography from the ferry itself these visualisations have been prepared using the digital terrain model with a 'drape' of the aerial photography so that the areas of land and sea can be readily identified as part of the wider context. To this 'drape' the models of the operational offshore wind farms and the proposed AyM offshore infrastructure have been added. This method of presentation was agreed with NRW as being satisfactory.
- Following the Section 42 consultation process and a subsequent ETG meeting Conwy County Council requested further visualisations to illustrate views from three locations along the A55.
- Table 2 sets out the viewpoints included in Volume 6, Annex 10.6 SLVIA 124 Visualisations. Representative viewpoints are assessed in full in the SLVIA and may be cross referenced and assessed in Volume 2, Chapter 11 or Volume 3, Chapter 4. Illustrative viewpoints are not assessed in full in the SLVIA but are used to inform assessments such as those from other nearby locations (where there is already a representative viewpoint), to provide information about views from routes for sequential assessment or wider effects on a designation/visual receptor or to scope out effects (for example for the English coast). Viewpoint 39: North Wales path at Garag Fawr has been moved for the ES to a location with theoretical visibility of AyM. Reference may be made to other illustrative, cultural heritage or tourism focussed viewpoints in the SLVIA, however these are not assessed in full. The extent of the visualisations for each viewpoint and agreed with the ETG consultees is also shown with reference to the notes included below the table (Table 2).



Table 2: Viewpoint visualisations included in Volume 6, Annex 10.6

NO.	NAME	GRID COORDI	NATES	DIST. TO ARRAY AREA (KM)	REPRESENTATIVE OF LVIA RECEPTORS	EXTENT OF ASSESSMENT IN SLVIA	VISUALISATIONS INCLUDED	LPA (WALES)
1	Bull Bay near Amlwch – Wales Coast Path	242590	394531	31.7	IoA AONB North West Coast LCA Settlement Wales Coast Path	Representative viewpoint	FULL	IoA
2	Point Lynas - PRoW to north of lighthouse	248021	393538	26.5	IoA AONB Amlwch and Environs LCA PROW	Representative viewpoint	FULL KEY VIEWPOINT	IoA
3	Mynydd Eilian - near trig point	247285	391721	27.6	IoA AONB Amlwch and Environs LCA PROW	Representative viewpoint	FULL	IoA
4	Moelfre Headland at sculpture	251515	386801	25.2	IoA AONB Red Wharf Bay LCA Wales Coast Path	Representative viewpoint.	FULL KEY VIEWPOINT NIGHT TIME	IoA
5	Red Wharf Bay	253013	381053	26.7	IoA AONB Red Wharf Bay LCA Wales Coast Path Settlement	Representative viewpoint	FULL	IoA
6	Bwrdd Arthur - north of trig point	258571	381301	22.3	IoA AONB Penmon and Puffin Island LCA Wales Coast Path	Representative viewpoint	FULL	IoA
7	Penmon Point - north-east of parking	264062	381275	18.7	IoA AONB Penmon and Puffin Island LCA	Representative viewpoint	FULL KEY VIEWPOINT	IoA



NO.	NAME	GRID COORDI	NATES	DIST. TO ARRAY AREA (KM)	REPRESENTATIVE OF LVIA RECEPTORS	EXTENT OF ASSESSMENT IN SLVIA	VISUALISATIONS INCLUDED	LPA (WALES)
					Wales Coast Path			
8	Beaumaris - Wales Coast Path	260877	376060	24.8	IoA AONB Eastern Menai Strait LCA Settlement	Representative viewpoint	FULL KEY VIEWPOINT	IoA
9	Bangor Pier (Southern End)	258432	373236	28.5	Wales Coast Path Menai Coast LCA Close to NCR 5 Settlement Visitor attraction	Representative viewpoint	FULL KEY VIEWPOINT	Gwynedd
10	Carnedd Llewelyn	268359	364374	32.4	SNP Carneddau Range LCA PRoW	Representative viewpoint.	FULL KEY VIEWPOINT	SNPA
11	Llanfairfechan	267955	375468	22.2	Wales Coast Path NCR 5 Coastal Landscape Unit (Penmaenmawr to Llanfairechan) Settlement	Representative viewpoint	FULL	Conwy
12	Conwy Mountain	275976	377803	17.1	SNP Northern Uplands LCA Wales Coast Path	Representative viewpoint	FULL KEY VIEWPOINT	SNPA
13	Great Orme - near summit complex	276686	383403	11.7	Great Orme Heritage Coast Great Orme & Creuddyn Peninsula	Representative viewpoint	FULL KEY VIEWPOINT NIGHT TIME	Conwy



NO.	NAME	GRID COORDI	NATES	DIST. TO ARRAY AREA (KM)	REPRESENTATIVE OF LVIA RECEPTORS	EXTENT OF ASSESSMENT IN SLVIA	VISUALISATIONS INCLUDED	LPA (WALES)
					Sensitive Landscape Area (SLA)			
					Great Orme and Creuddyn Peninsula LCU			
					Visitor attraction			
14	Wales Coast Path near Penrhyn (Traeth yr Ora)	249170	388346	26.9	IoA AONB  Dulas Bay Hinterland  LCA  Wales Coast Path	Representative viewpoint	FULL	IoA
15	Great Orme - Café	275635	384392	11.1	Great Orme Heritage Coast Great Orme & Creuddyn Peninsula (SLA) Great Orme and Creuddyn Peninsula LCA Wales Coast Path	Representative viewpoint	FULL	Conwy
16	Benlech Bay View Road	252319	382446	26.5	Wales Coast Path Red Wharf Bay LCA Settlement	Representative viewpoint	FULL	IoA
17	Penrhyn Castle terrace	260302	371864	28.6	Registered Park and Garden Bangor Coastal Plain LCA Visitor attraction	Representative viewpoint	FULL KEY VIEWPOINT	Gwynedd
18	Llandudno paddling pool	279904	382175	11.7	Great Orme and Creuddyn Peninsula LCA	Representative viewpoint	FULL KEY VIEWPOINT	Conwy



NO.	NAME	GRID COORDI	NATES	DIST. TO ARRAY AREA (KM)	REPRESENTATIVE OF LVIA RECEPTORS	EXTENT OF ASSESSMENT IN SLVIA	VISUALISATIONS INCLUDED	LPA (WALES)
					Wales Coast Path NCR 5 Settlement Visitor attraction			
19	Rhos-on-Sea	284270	380874	12.2	Coastal & Estuarine Flats (Colwyn Bay) LCA Wales Coast Path NCR 5 Settlement	Illustrative viewpoint	PHOTO & WIRE	Conwy
20	Bryn Euryn	283214	379896	13.2	Limestone Escarpment and Hills LCA PRoW	Representative viewpoint	FULL	Conwy
21	Mynydd Marian	288657	377710	16.1	Limestone Farmlands (Abergele to Denbigh Coastal/ Vale Hills LCA) Settlement	Representative viewpoint	FULL	Conwy
22	Abergele promenade	294535	378744	17.8	Coastal & Estuarine Flats (Prestatyn to Abergele LCA) Wales Coast Path NCR 5 Settlement Visitor attraction	Representative viewpoint	FULL KEY VIEWPOINT NIGHT TIME	Conwy
23	Rhyl Aquarium	300726	381803	18.9	Coastal & Estuarine Flats (Prestatyn to Abergele LCA) Wales Coast Path	Representative viewpoint	FULL	Denbighshire



NO.	NAME	GRID COORDI	NATES	DIST. TO ARRAY AREA (KM)	REPRESENTATIVE OF LVIA RECEPTORS	EXTENT OF ASSESSMENT IN SLVIA	VISUALISATIONS INCLUDED	LPA (WALES)
					NCR 5 Settlement Visitor attraction			
24	Graig Fawr	305948	380393	23.6	Clwydian Range and Dee Valley AONB Hills, Lower Plateau & Scarp Slopes LCTPRoW	Representative viewpoint	FULL KEY VIEWPOINT	Denbighshire
25	Prestatyn Nova Centre	306092	383798	21.2	Coastal & Estuarine Flats (Prestatyn to Abergele LCA) Wales Coast Path Offa's Dyke Path NCR 5 Settlement Visitor attraction	Representative viewpoint	FULL	Denbighshire
26	Bryn-llwyn Viewpoint (Prestatyn Hillside viewpoint, Gwaenysgor)	307450	381850	23.6	Clwydian Range and Dee Valley AONB Hills, Lower Plateau & Scarp Slopes LCT Offa's Dyke Path	Illustrative viewpoint	WIRE	Flintshire
27	Point of Ayr	312206	385074	24.6	Wales Coast Path	Representative viewpoint	FULL	Flintshire
28	Trwyn y Penrhyn parking layby	262974	379806	20.5	IoA AONB Eastern Menai Strait LCA Wales Coast Path	Representative viewpoint	FULL	IoA



NO.	NAME	GRID COORDI	NATES	DIST. TO ARRAY AREA (KM)	REPRESENTATIVE OF LVIA RECEPTORS	EXTENT OF ASSESSMENT IN SLVIA	VISUALISATIONS INCLUDED	LPA (WALES)
29	Colwyn Bay promenade	284997	379285	13.9	Coastal & Estuarine Flats (Colwyn Bay LCA) Wales Coast Path NCR 5 Settlement Visitor attraction	Representative viewpoint	FULL KEY VIEWPOINT	Conwy
30	Hilbre Point	320295	388465	29.6	Settlement	Illustrative viewpoint	WIRE	
31	Crosby	330665	398815	37.5	Settlement Visitor attraction	Illustrative viewpoint	WIRE	
32	Formby Lifeboat Station (Formby Point)	327035	406295	34.3	Sefton Coastal Footpath LDR Visitor attraction	Illustrative viewpoint	WIRE	
33	Southport (pier)	332585	418160	43.1	Settlement Visitor attraction	Illustrative viewpoint	WIRE	
34	Snowdon summit	260983	354376	44.3	Snowdonia National Park Snowdon Massif LCA PRoW Visitor Attraction	Representative viewpoint	PHOTO & WIRE (no photomontage due to long distance)	SNPA
35	Blackpool Tower	330474	435380	51.0	Settlement Visitor attraction	Illustrative viewpoint	WIRE	Blackpool
36	Tal y Fan	272940	372665	23.0	Snowdonia National Park Northern Uplands LCA PRoW	Representative viewpoint	FULL	SNPA



NO.	NAME	GRID COORDI	NATES	DIST. TO ARRAY AREA (KM)	REPRESENTATIVE OF LVIA RECEPTORS	EXTENT OF ASSESSMENT IN SLVIA	VISUALISATIONS INCLUDED	LPA (WALES)
37	Cefn Coch Stone Circle	272290	374659	21.4	Coastal Landscape Unit (Penmaenmawr to Llanfairechan) Wales Coast Path	Representative viewpoint	FULL	Conwy
38	Foel Fras	269654	368178	28.4	Snowdonia National Park Northern Uplands LCA	Representative viewpoint	FULL	SNPA
39	North Wales Path at Garreg Fawr	268576	373569	23.7	Snowdonia National Park Northern Uplands LCA North Wales Path	Illustrative viewpoint	WIRE	SNPA
40	Above Capelulo – North Wales Path	274885	376275	19.0	Snowdonia National Park Northern Uplands LCA North Wales Path	Representative viewpoint	FULL	SNPA
41	Wales Coast Path north-east of Rhôs-mynach- fawr	248563	391858	26.4	IoA AONB  Amlwch and Environs LCA  Wales Coast Path	Illustrative viewpoint	PHOTO & WIRE	IoA
42	Mynydd Bodafon - Trig Point	247245	385422	29.7	IoA AONB  Dulas Bay Hinterland  LCA  PROW	Representative viewpoint	FULL	IoA
43	Mynydd y Garn	231499	390684	43.3	IoA AONB  North West Anglesey  LCA  PRoW	Representative viewpoint	PHOTO & WIRE (no photomontage due to long distance)	loA



NO.	NAME	GRID COORDI	NATES	DIST. TO ARRAY AREA (KM)	REPRESENTATIVE OF LVIA RECEPTORS	EXTENT OF ASSESSMENT IN SLVIA	VISUALISATIONS INCLUDED	LPA (WALES)
44	Beaumaris Castle	260755	376228	24.7	IoA AONB Eastern Menai Strait LCA Visitor Attraction	Representative viewpoint	FULL	IoA
45	Conwy Castle – Chapel Tower	278419	377477	16.6	NA	Cultural Heritage Viewpoint	PHOTO & WIRE	Conwy
49	Menai Suspension Bridge	255627	371493	31.6	Eastern Menai Strait LCA Wales Coast Path NCR 5 & NCR 8	Illustrative Viewpoint	PHOTO & WIRE	IoA
50	Gwrych Castle - Terrace	292928	377418	18.1	Betws yn Rhos SLA Limestone Farmlands (Abergele to Denbigh Coastal/ Vale Hills) LCA	Cultural Heritage Viewpoint	FULL	Conwy
52	Pen-y-Dinas Camp at interpretation sign	277896	382971	11.6	Great Orme Heritage Coast Great Orme and Creuddyn Peninsula LCA	Cultural Heritage viewpoint	PHOTO & WIRE	Conwy
53	Puffin Island	265122	382142	17.4	IoA AONB Penmon and Puffin Island LCA	Cultural Heritage Viewpoint	WIRE	IoA
54	y Foel (Common land and hill east of Dyserth)	306309	378356	25.3	Clwydian Range and Dee Valley AONB Hills, Lower Plateau & Scarp Slopes LCA	Illustrative viewpoint	WIRE	Denbighshire
55	Footpath above Cilgwyn Mawr	284694	376372	16.8	PRoW	Illustrative viewpoint	WIRE	Conwy



NO.	NAME	GRID COORDI	NATES	DIST. TO ARRAY AREA (KM)	REPRESENTATIVE OF LVIA RECEPTORS	EXTENT OF ASSESSMENT IN SLVIA	VISUALISATIONS INCLUDED	LPA (WALES)
					Aled Hiraethog Hills (West) LCA			
56	Pen-y-corddyn- mawr	291524	376263	18.5	Betws yn Rhos SLA Limestone Escarpment and Hills LCA	Illustrative viewpoint	WIRE	Conwy
57	Moelfre Isaf	295121	373367	22.7	PRoW Aled Hiraethog Hills (West) LCA	Illustrative viewpoint	WIRE	Conwy
58	Little Orme at Trig Point	281299	382386	10.8	Great Orme & Creuddyn Peninsula (SLA) Great Orme and Creuddyn Peninsula LCA Access Land	Illustrative viewpoint	PHOTO & WIRE	Conwy
59	Llandundo promenade - lifeboat slipway	278264	382555	11.9	Great Orme and Creuddyn Peninsula LCA Wales Coast Path Settlement Visitor Attraction	Representative Viewpoint	FULL	Conwy
60	Foel Lus	273132	376469	19.4	Snowdonia National Park Northern Uplands LCA Wales Coast Path	Night-time viewpoint	NIGHT TIME	SNPA
61	Llandudno Promenade near Venue Cymru	279197	382140	11.9	Wales Coast Path NCR 5 Settlement	Illustrative viewpoint	FULL KEY VIEWPOINT NIGHT TIME	Conwy



NO.	NAME	GRID COORDI	NATES	DIST. TO ARRAY AREA (KM)	REPRESENTATIVE OF LVIA RECEPTORS	EXTENT OF ASSESSMENT IN SLVIA	VISUALISATIONS INCLUDED	LPA (WALES)
					Visitor attraction			
62	Great Orme – Marine Drive, Wales Coast Path near Toll Booth	278194	383205	11.3	Great Orme Heritage Coast Great Orme & Creuddyn Peninsula (SLA) Great Orme and Creuddyn Peninsula LCA Wales Coast Path NCR 5	Illustrative viewpoint	FULL	Conwy
63	A55 at Penmaenmawr	270568	376172	20.6	A55	Illustrative viewpoint	PHOTO & WIRE	Conwy
64	A55 at Puffin Roundabout, Dwygyfylch	272723	377171	19.1	A55	Illustrative viewpoint	PHOTO & WIRE	Conwy
65	A55 at jetty north of Penmaen Rhôs	288688	378585	15.2	A55	Illustrative viewpoint	PHOTO & WIRE	Conwy
66	Offshore - Liverpool to Dublin Ferry route north of Great Orme	276832	404840	4.2	Ferry users	Representative viewpoint	COMPUTER GENERATED VISUALISATION	NA
67	Offshore - Liverpool to Dublin Ferry route north of Conwy Bay	268142	405941	10.0	Ferry users	Representative viewpoint	COMPUTER GENERATED VISUALISATION	NA

NOTES FULL – Baseline photograph and cumulative wireline (cylindrically projected, 90 degree field of view and with further 90 degree segments as required to inform the assessment of effects), wireline and photomontage (53.5 degree field of view planar projection). Prepared at extended A3 size.

NIGHT TIME – Baseline dusk photograph and cumulative wireline (cylindrically projected, 90 degree field of view and with further 90 degree segments as required to inform the assessment of effects), wireline and lighting photomontage (53.5 degree field of view planar projection).

MDS A and MDS B illustrated and assessed. Prepared at extended A3 size.

KEY VIEWPOINT – MDS A and MDS B illustrated and assessed.

PHOTO & WIRE – Baseline photograph and cumulative wireline (cylindrically projected, 90 degree field of view and with further 90 degree segments as required)



WIRE - Cumulative wireline only

COMPUTER GENERATED VISUALISATION – Baseline view created using software, aerial mapping, digital terrain model and models of the operational WTGs with the AyM proposals added as further models.



125 A simple assessment of the viewpoints has been undertaken in Volume 4 Annex 10.3. This sets out the viewpoints, settlements and sections of the WCP where there is potential for significant effects to arise. These viewpoints are assessed in detail in Section 10.11.

## Visibility frequency

- Viewing conditions and visibility have been found, during field work, to vary in the study area. The varied clarity or otherwise of the atmosphere will reduce the number of days upon which views of the offshore elements of AyM will be available from the coastline and hinterland, and is likely to inhibit clear views, rendering the wind turbines more visually recessive within the wider seascape. The effects of the offshore elements of AyM will vary according to the weather and prevailing visibility. This means that effects that are assessed to be significant in the SLVIA under very good or excellent visibility conditions, may be not significant under moderate, poor or very poor visibility conditions.
- 127 Further information regarding visibility frequency data for the area and its use in the SLVIA is provided in Volume 4, Annex 10.4: Visibility Frequency Data.

#### 10.7.5 Evolution of the baseline

- The main driver of change within the seascape, landscape and visual resource is climate change. Aspects that may cause change are likely to take two forms; measures to mitigate against the adverse effects of climate change and measures put in place to try and limit the future effects of it. In addition, the long-term effects of the COVID-19 pandemic and the recovery from it may also have a supplementary effect.
- 129 The need for increased flood defence measures is likely to be a driver for change in relation to the coastline and water courses as well as potential changes to other land use practices.



- Net Zero carbon emission targets are likely to see an increase in renewable energy development, which is likely to include further onshore and offshore wind farm development, tidal and wave power projects and solar development. A particular focus for onshore wind farms is likely to occur within the areas identified in the Future Wales' spatial strategy as pre-assessed areas (PAA) for wind energy. Two of these are located in the Study Area between SNP and the Clwydian Range and Dee Valley AONB. The northerly area extends to within approximately 2 km of the coast between Colwyn Bay and Llandulas. These may in turn require further grid infrastructure to connect with the national grid and consumers.
- 131 As set out in Volume 2, Chapter 10: Shipping and Navigation (application ref: 6.2.10) there is a notable trend towards more international shipping out of Liverpool and towards larger vessels. This is likely to increase views of vessels as part of the seascape.
- 132 Increased walking, cycling and public transport infrastructure may result in changes within urban and rural areas to accommodate this with the aim of reducing vehicular travel and providing increased amenity resources.
- Following the United Kingdom's exit from the European Union new policies are being drawn up to replace the Common Agricultural Policy. This may result in different agricultural practices being subsidised so that land-uses and land management practices that can reduce or offset carbon emissions become more prevalent. These may include increased tree cover; hedgerow planting and areas being left ungrazed. There may also be increases in food production in the UK in order to reduce our need to import, which may also change farming infrastructure and practices.
- 134 The recent change in how people work at home rather than travelling to offices- is likely to continue and may result in changes to town centres where there is a focus on commercial property. Such changes may also put more development pressure on rural communities.



# 10.8 Key parameters for assessment

- 135 The following section identifies the MDS for assessment in environmental terms, defined by the project design envelope. This is used to establish the maximum potential impact associated with the project during construction, operation and decommissioning and includes the mitigation set out in Section 10.9.
- 136 The scenarios set out for construction and decommissioning assume that all activities would occur at the same time, including the existence of the above sea surface of non-operational parts of the WTGs, OSPs and Met Mast. However, this would not actually be the case as the above sea surface parts of the WTGs, OSPs and Met Mast would only be apparent over a reduced period of the overall construction/ decommissioning programme and the taller parts of the WTGs, OSPs and Met Mast would be present in addition to these for even less of the construction/ decommissioning period. During the construction and decommissioning periods, for the majority of the time, impacts would arise due to a concentration of vessels within and around the array area. Whilst the current programme is indicative it is estimated that construction of the OSPs will be seen to occur over a 15-month period with the early part of the work being sub-sea surface. It is likely that overlapping with the construction of the OSPs would be the construction of the WTG and met mast foundations, the upper part of which would be visible above the sea surface from the closer/ elevated sections of the coast. It is anticipated that, following the start of laying the subsea array cables, the WTGs and met mast would be erected on top of the foundations over approximately nine months. There would be around a further nine months of commissioning prior to the AyM Offshore Infrastructure becoming operational. The highest levels of impact during construction and decommissioning will occur when the AyM Offshore Infrastructure is not operational but the WTGs are largely apparent during a construction period of approximately 18 months of the five-year construction/ commissioning programme. The decommissioning timescale for similar impacts would be shorter.



- As noted previously, two scenarios are considered in the SLVIA in order to illustrate the potential range of effects between the largest WTGs and the largest number of WTGs. These are MDS A and MDS B respectively as set out in Table 4.
- It is considered to be worth noting that whilst the focus of the assessment is MDS A, a review of the SLVIA carried out by LUC on behalf of the North Wales Local Planning Authorities as part of the Section 42 consultation response by the North Wales LPAs (LUC September 2021. North Wales Local Planning Authorities, Awel y Môr Offshore Wind Farm, SLVIA Review, Draft report) found 'that findings of significant effect do not vary according to which MDS is considered. This suggests that turbines of 252 m in height would have the same spread of significant effects as turbines of 332 m, and that turbines would have to be substantively smaller to achieve effective mitigation'. Detailed responses to the LUC review can be found in Volume 4, Annex 10.2: SLVIA Summary of Consultation (application ref: 6.4.10.2).



Table 3: Maximum design scenarios.

POTENTIAL EFFECT	MAXIMUM DESIGN SCENARIO (LARGEST WTGS -MDS A)	JUSTIFICATION	MOST NUMEROUS WTGS MDS B	JUSTIFICATION
Construction				
Seascape character  Landscape character  Special Qualities of AONBs and SNP  Visual resource	Construction of WTG 20 jacket foundations and 14 WTG monopile foundations  Jacket foundations positioned closest to the shore and at various locations across the array area.  Construction of 34 WTGs - 332m above MHWS to tip, 306m rotor diameter, arranged in N-S grid formation – peak number of vessels 15.  Construction of 1 Met Mast to level with WTG hub height, monopile foundation. Located at south-west of the other infrastructure zone.  Construction of 2 OSPs, topside 80m x 50m x 62m tall (above MHWS-including helideck but excluding telecoms masts) on jacket foundations. Located in southern part of AyM array area. Maximum peak number of construction vessels - 35	Jacket foundations are considered to have a greater SLV impact than other types of foundations due to their bulkier form in close range views.  A mixture of foundation types is considered to have a greater SLV impact than a single WTG foundation type across the entire array.  Largest WTGs with largest rotor diameters likely to have most widespread significant effects.  Biggest visual contrast with operational OWFs and landform/ built features.  OSPs and Met Mast sited as close as is likely to occur to the coast where largest number of receptors.  Largest numbers of vessels creates more activity and industrial presence than lower numbers.	Construction of 27 WTG jacket foundations and 23 WTG monopile foundations.  Jacket foundations positioned closest to the shore and at various locations across the array area.  Construction of 50 WTGs - 282m above MHWS to tip, 250m rotor diameter, arranged in N-S grid formation – peak number of vessels 15.  Construction of 1 Met Mast to level with WTG hub height, monopile foundation. Located at south-west of the other infrastructure zone.  Construction of 2 OSPs, topside 80m x 50m x 62m tall (above MHWS- including helideck but excluding telecoms masts) on jacket foundations. Located in southern part of AyM array area.  Maximum peak number of construction vessels - 35	Jacket foundations are considered to have a greater SLV impact than other types of foundations due to their bulkier form in close range views.  A mixture of foundation types is considered to have a greater SLV impact than a single WTG foundation type across the entire array.  Largest number of WTGs have higher density across the array area.  OSPs and Met Mast sited as close as is likely to occur to the coast where largest number of receptors.  Largest numbers of vessels create more activity and industrial presence than lower numbers.
Night-time effects on Visual Resource	Temporary marking and lighting of the array in agreement with Trinity House and in line with IALA R-139/G1162 during the construction phase. See Volume 2: Chapter 9 Shipping and Navigation (application ref: 6.2.9) and Volume	Variety of marine navigation and aviation light sources across the array area that will alter during the construction period.	Temporary marking and lighting of the array in agreement with Trinity House and in line with IALA R-139/G1162 during the construction phase. See Volume 2: Chapter 9 Shipping and Navigation (application ref: 6.2.9) and Volume 2, Chapter 13: Aviation and Radar (application ref: 6.2.13) for further details.	Variety of marine navigation and aviation light sources across the array area that will alter during the construction period.



POTENTIAL EFFECT	MAXIMUM DESIGN SCENARIO (LARGEST WTGS -MDS A)	JUSTIFICATION	MOST NUMEROUS WTGS MDS B	JUSTIFICATION
	2, Chapter 13: Aviation and Radar (application ref: 6.2.13) for further details.			
Operation				
Seascape character	Operation of 34 WTGs - 332m above MHWS to tip, 306m rotor diameter,	Largest WTGs with largest rotor diameters likely to have most	Operation of 50 WTGs - 282m above MHWS to tip, 250m rotor diameter, arranged in N-S grid formation	Maximum number of marine navigation lights
Landscape character	with jacket foundations arranged in N-S grid formation  1 Met Mast to level with WTG hub	widespread significant effects.  Biggest visual contrast with operational OWFs and	1 Met Mast to level with WTG hub height, monopile foundation. Located at south-west of the other infrastructure zone.	
Special Qualities of AONBs and SNP	height, monopile foundation. Located at south-west of the other	landform/ built features.  Jacket foundations are	OSPs, topside 80m x 50m x 62m tall (above MHWS-including helideck but excluding telecoms masts) on	
Visual resource	infrastructure zone.  OSPs, topside 80m x 50m x 62m tall (above MHWS- including helideck but excluding telecoms masts) on jacket foundations. Located in likely closest locations in southern part of AyM array area, long side facing south	considered to have a greater SLV impact than other types of foundations due to their bulkier form in close range views and are not of the same type as the operational WTGS. A mixture of foundations may add visual complexity.	jacket foundations. Located in likely closest locations in southern part of AyM array area.  Maximum 22 vessels in the array area at any one time (addition of all maximum numbers unlikely to occur together).  Maximum annual return trips by vessels 1208.  Maximum annual helicopter return trips -100.	
	Maximum 22 vessels in the array area at any one time (addition of all maximum numbers unlikely to occur together).	OSPs and Met Mast sited as close as is likely to occur to the coast where largest number of receptors.		
	Maximum annual return trips by vessels 1198.  Maximum annual helicopter return trips -60.	Maximum number of trips to shore by vessels and helicopters.		
Night-time effects on Visual Resource	19 perimeter WTGs with hub mounted Civil Aviation red lighting as shown on Figure 2a. Up to 2,000 Candela (Cd) displayed at night only. Dimmable to 200 Cd when	Highest aviation lights (based on MDS A) within AyM array area.  Met mast positioned closest likely to coast.	26 perimeter WTGs with hub mounted Civil Aviation red lighting as shown on Figure 2b. Up to 2,000 Cd displayed at night only. Dimmable to 200 Cd when visibility is greater than 5 km. Synchronised flashing Morse "W".	Maximum number of aviation lights (based on MDS B) within array area.  Met mast positioned closest likely to coast.



POTENTIAL EFFECT	MAXIMUM DESIGN SCENARIO (LARGEST WTGS -MDS A)	JUSTIFICATION	MOST NUMEROUS WTGS MDS B	JUSTIFICATION
	visibility is greater than 5 km. Synchronised flashing Morse "W".		Met mast with Civil Aviation red lighting as per WTGs.  Mounted at highest point (same as WTG hub height).	Maximum number of marine navigation lights.
	Met mast with Civil Aviation red lighting as per WTGs. Mounted at highest point (same as WTG hub height).		15 WTGs with marine navigation flashing yellow light, 5NM nominal range, mounted at the top of the foundations positioned on significant peripheral structures as shown on Figure 2b.	
	12 WTGs with marine navigation flashing yellow light, 5NM nominal range, mounted at the top of the foundations positioned on significant peripheral structures as shown on Figure 2a.		Met mast with marine navigation flashing white light, 10NM nominal range, mounted at the top of the foundation.	
	Met mast with marine navigation flashing white light, 10NM nominal range, mounted at the top of the foundation.			
Decommissioning				
Seascape character	Removal of 34 WTGs - 332m above MHWS to tip, 306m rotor diameter,	Largest WTGs with largest rotor diameters likely to have most	Removal of 50 WTGs - 282m above MHWS to tip, 250m rotor diameter, arranged in N-S grid formation.	Largest numbers of vessels create more activity and industrial presence than lower numbers.
Landscape character	arranged in N-S grid formation.  Removal of 1 Met Mast to level with WTG hub height, monopile foundation. Located at south-west of the other infrastructure zone.  Removal of 2 OSPs, topside 80m x 50m x 62m tall (above MHWS-including helideck but excluding	widespread significant effects.  Biggest visual contrast with operational OWFs and	Removal of 1 Met Mast to level with 1410 hob height,	
Special Qualities of AONBs and SNP		landform/ built features.  OSPs and Met Mast sited as close as is likely to occur to the coast where largest number of	Removal of 2 OSPs, topside 80m x 50m x 62m tall (above MHWS- including helideck but excluding telecoms masts) on jacket foundations. Located in likely closest locations in southern part of AyM array	
Visual resource				
Landscape character	telecoms masts) on jacket foundations. Located in likely closest	receptors.  Largest numbers of vessels associated with 48 WTGs creates	area, long side facing south Indicative peak number of vessels 35.	
Special Qualities of AONBs and SNP	locations in southern part of AyM array area, long side facing south	more activity and industrial presence than lower numbers.		
Visual resource	Indicative peak number of vessels 35.			



POTENTIAL EFFECT	MAXIMUM DESIGN SCENARIO (LARGEST WTGS -MDS A)	JUSTIFICATION	MOST NUMEROUS WTGS MDS B	JUSTIFICATION
Night-time effects	Temporary marking and lighting of	Variety of marine navigation	Temporary marking and lighting of the array in	Variety of marine navigation
on Visual Resource	the array in agreement with Trinity House and in line with IALA R- 139/G1162 during the decommissioning phase. See Volume 2: Chapter 9 Shipping and Navigation (application ref: 6.2.9) and Volume 2, Chapter 13: Aviation and Radar (application ref: 6.2.13) for further details.	and aviation light sources across the array area that will alter during the decommissioning period.	agreement with Trinity House and in line with IALA R-139/G1162 during the decommissioning phase. See Volume 2: Chapter 9 Shipping and Navigation (application ref: 6.2.9) and Volume 2, Chapter 13: Aviation and Radar (application ref: 6.2.13) for further details.	and aviation light sources across the array area that will alter during the decommissioning period.

Note: Whilst this table lists all of the various parameters associated with both MDS A and MDS B only the visual effects during operation at key viewpoints are assessed for MDS B. The effects on the landscape and seascape character and during construction and decommissioning are assessed for MDS A. The comparative effects of MDS B construction would not be materially different.



# 10.9 Mitigation measures

Mitigation measures that were identified and adopted as part of the evolution of the project design (embedded into the project design) and that are relevant to SLVIA are listed in Table 4. The mitigation includes embedded measures such as design changes and applied mitigation which is subject to further study or approval of details; these include avoidance measures that will be informed by pre-construction surveys, and necessary additional consents where relevant. The composite of embedded and applied mitigation measures apply to all parts of the AyM development works, including pre-construction, construction, O&M and decommissioning. The subsequent assessment stage of the EIA is based on the 'mitigated' design.

Table 4: Mitigation measures relating to SLVIA.

PARAMETER	MITIGATION MEASURES
General	
Project design	The western part of the AfL has been excluded from use as part of the array area as illustrated in Figure 2c (Annex 10.5). This reduces the horizontal extents of the AyM OWF primarily in views from the south where SNP and numerous settlements are located. The west to east extent of the Agreement for Lease/ scoping boundary has reduced from 25.8 km to 16.4 km (a reduction of 36% from scoping).
	Additionally, the distance from the Isle of Anglesey coast and AONB to the west is increased. At Viewpoint 2: Point Lynas on the north-east coast of Anglesey the Agreement for Lease/ scoping boundary was 20.2 km distant. The array area assessed in the ES has moved 8.5 km further away at 28.7 km. From locations to the south-west both changes may be experienced to some degree.
	Increased distance reduces the scale of wind turbines in views from the Isle of Anglesey AONB with the most marked difference occurring in the north.



# **PARAMETER** MITIGATION MEASURES The reduced horizontal field of view and number of wind turbines leads to a reduction in impacts on both the IoA AONB and SNP. This change to the project design parameters followed SLVIA/ CH stakeholder and Section 42 consultation as well as having regard to NRW guidance. NRW Report 315 is set out in three stages and entitled Seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance (March 2019). This guidance has been considered alongside other technical and environmental factors relating to OWF development within the AfL (See also Volume 1, Chapter 4 Site Selection and Alternatives). In particular the mitigation removes the array area from the area shown in the Guidance as 7 one No 3: North Wales and North Anglesey Inshore, which is identified as having a high sensitivity. It is not possible for the Applicant to reduce the WTG heights from those assessed in the ES MDS A or MDS B or to consider either of these as more likely. The reasons for this are set out in Volume 1, Chapter 4: Site Selection and Alternatives, with the underlying rationale acknowledged and accepted by the policy set out in the NPS. Aviation Aviation lighting of 2000Cd was assessed in the PEIR as lighting having significant effects at night time from some locations. The Applicant has committed to install sensors so that when visibility of the WTGs lights is greater than 5 km at night the aviation lighting is reduced from 2000 Cd to 200 Cd. Thus, from the coastal areas, which are all at distances of greater than 5 km the 2000 Cd lighting would never be visible to its full extent as this would only be 'on' when the visibility conditions are very poor e.g., during periods of high humidity/ fog. 200Cd would be the level of light most likely to be seen from the coast and illustrated in



the ES visualisations.

PARAMETER	MITIGATION MEASURES
	The reduction in the number of turbines and the array
	area has reduced the number of aviation lights and in
	many cases also the horizontal extent of the views
	affected by these.

# 10.10 Environmental assessment – effects on seascape character and views

#### 10.10.1 Introduction

- The baseline of the seascape receptors that are to be assessed in detail, as identified in the simple assessment contained in Volume 2, Chapter 12: Annex 10.3, is described and the level of sensitivity to the AyM offshore elements is defined.
- This section considers the direct effects on the regional level Seascape Character Areas within Wales as shown on Figure 5 (Annex 10.5). This includes the effects on SCA F- North Wales Open Waters and SCA 28-North-east of Anglesey. This section also includes consideration of the views potentially obtained by people travelling on the Liverpool to Dublin Ferry as represented by viewpoints 66 and 67.
- The effects on the seascape character and views are assessed in relation to the MDS A scenario, which is the agreed MDS used as the basis of the main assessment. Whilst MDS B would introduce more WTGs to the seascape character areas and views it is considered that the scale of the larger WTGs in the MDS A scenario would have a greater impact and therefore effect on these receptors.
- The effects on the SCAs that are affected only as a result of views of AyM as part of their wider seascape setting are assessed in the following section where they are assessed alongside the geographically associated landscape and visual receptors.



The effects on the Seascape Character Areas during construction and decommissioning are considered to be very similar but occurring generally in reverse order with the decommissioning taking less time but still within the defined short-term threshold of 1-5 years. Therefore, in this chapter these effects are assessed together.

### Effects on visual resource

- 145 Effects on the offshore visual resource are considered primarily in relation to the representative viewpoints which are located on the route of the ferry. The assessments of the representative viewpoints, with reference to viewpoint visualisations contained in Annex 10.6, then informs the assessments of the effects on seascape character.
- Design refinements following stakeholder feedback have reduced the extent of the horizontal field of view (and in some cases the vertical field of view) affected by AyM by removing the westerly area of the AyM array area and the WTGs therein. The number of WTGs visible within the remaining AyM array area has also been reduced in all views from seascape and visual receptors as well as the cumulative sequential views of OWFs that will be experienced by ferry travellers on the route.
- 147 Effects on the representative viewpoints are assessed in Table 5.



Table 5: Effect on offshore Representative Viewpoints During Construction/ Decommissioning and Operation.

Evidence Plan Process (application ref: 8.2)  The viewpoint has been located on one of the closest routes take by the ferry to the coast with other routes passing further to the north.  Located out at sea within North-east of Anglesey SCA. The view encompasses a 360 degree panoramic view across a large scale seascape. The digital baseline view does not show the Douglas Oil Platform and other above sea oil and gas installations that are located to the north-east of the viewpoint, however these features are likely to be influential in views as the ferry passes to the south of them. The Isle of Man may also be visible on the skyline to the north-west as well as numerous large ships within the nearby shipping lane. Fishing boats and OWF maintenance vessels may also be visible from ferry in this area.  Viewpoint located at a height of 10m AOD to represent the views obtained by passengers on the Liverpool to Dublin ferries which are mostly available from the higher decks.  Viewpoint has been selected to illustrate the change in views towards SNP and the Isle of Anglesey as passengers pass to the north of the Great Orme.  Receptors on ferry route to/from Liverpool are transient and pass to the west and north of a succession of operational OWFs at relatively close range between Liverpool and a point to the east of the viewpoint. This equates to approximately 45 km of the 225 km route. If the ferry travels at a speed of the province of the form of the coast with the ferry travels at a speed of the province.  Receptors on ferry route to/from Liverpool are transient and pass to the west and north of a succession of operational OWFs at relatively close range between Liverpool and a point to the east of the viewpoint. This equates to approximately 45 km of the 225 km route. If the ferry travels at a speed of the province of the province of the search of the coast of the viewpoint of the ferry travels at a speed of the viewpoint of the ferry route.  Vissibility of WTG structures as they are construction/decommissioning work	VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
views towards the coast for approximately 1.5 hours. The OWFs are shown on Figure 1 (Annex 10.5). The varied heights of the WTGs within these OWF sites is shown in Table 17. The tallest operational WTGs are 187m to blade tip.  Although the operational OWF will have been closer to the ferry as it passed.  Although the operational OWF will have been closer to the ferry as it passed.	66: Offshore - Liverpool to Dublin Ferry route north	NOTE: Baseline view and visualisation have been digitally created using computer software and aerial photography due to the constraints of winter photography from the ferry itself. This approach has been agreed via the Evidence Plan Process (application ref: 8.2)  The viewpoint has been located on one of the closest routes take by the ferry to the coast with other routes passing further to the north.  Located out at sea within North-east of Anglesey SCA. The view encompasses a 360 degree panoramic view across a large scale seascape. The digital baseline view does not show the Douglas Oil Platform and other above sea oil and gas installations that are located to the north-east of the viewpoint, however these features are likely to be influential in views as the ferry passes to the south of them. The Isle of Man may also be visible on the skyline to the north-west as well as numerous large ships within the nearby shipping lane. Fishing boats and OWF maintenance vessels may also be visible from ferry in this area.  Viewpoint located at a height of 10m AOD to represent the views obtained by passengers on the Liverpool to Dublin ferries which are mostly available from the higher decks.  Viewpoint has been selected to illustrate the change in views towards SNP and the Isle of Anglesey as passengers pass to the north of the Great Orme.  Receptors on ferry route to/from Liverpool are transient and pass to the west and north of a succession of operational OWFs at relatively close range between Liverpool and a point to the east of the viewpoint. This equates to approximately 45 km of the 225 km route. If the ferry travels at a speed of approximately 30 km/hr (16 knots) the operational OWFs will form a key part of views towards the coast for approximately 1.5 hours. The OWFs are shown on Figure 1 (Annex 10.5). The varied heights of the WTGs within these OWF sites is shown in Table 17. The tallest operational WTGs are 187m to blade tip.	Construction/ Decommissioning: Low to Medium-high  Activity within array area at 4.2 km and vessel movements intensified in the vicinity during construction/ decommissioning work which is largely below sea surface or of limited extent - Low.  Visibility of WTG structures as they are constructed/commissioned or dismantled, which will occur over a period of less than 18 months in each instance – Medium-high  Operation (MDS A): Medium-high  Movement and structures of 34 WTGs visible at a relatively close range of 4.2 km and met mast apparent just to the west. 2 OSPs visible amongst the WTGs.  AyM WTGs visible across approximately 71 degrees of the wide sea view to the fore of the Rhyl Flats, North Hoyle and GyM OWFs. The larger scale and closer range of the AyM WTGs do however make them substantially more prominent at this point on the ferry route.  The AyM OWF will add close range visibility of OWF WTGs, as the ferry passes close to the OWF, for approximately a further 12 km of the ferry journey, which at approximately 30 km/hr would take	Construction/ Decommissioning  Moderate-Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate (Non- significant), adverse, short- term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate (Non- significant), adverse, long term, reversible.  Likelihood of effect  Requires Medium, Good, Very Good or Excellent visibility.  Visibility frequency at this



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	but, in reality, they are at a considerable distance so would only be seen in very good to excellent visibility.	Views from the ferry are transient and whilst the operational WTGs are seen at a	
	The part of the view that is land is a relatively narrow, horizontal strip at this range compared with the vast sea and sky that predominate.	minimum distance of 13.8 km from this specific location and viewpoint the ferry	
	The view south towards the coast includes the landform of the Great Orme. It appears less distinct when viewed from sea level and against a backdrop of land when compared with how prominent it is in some views out to sea from the coast. However, the marked geological 'stripes' of the different rocks that form the Great Orme are not distinct in the digital baseline as they are likely to be in reality. The features on the Great Orme of the lighthouse and other buildings are also not shown and would add to its identification as a coastal landmark.	route passes at much closer range (2-5 km) to the GyM, Burbo Bank Extension and Burbo Bank OWFs as shown on Figure 13.7: Passenger Vessels within the Study Area contained in Volume 4, Annex 9.1: Navigation Risk Assessment (application ref: 6.4.9.1). Whilst the operational OWF WTGs are smaller where the ferry passes	
	The rising and more pronounced mountain skyline of SNP is visible to the south-south-west beyond the Great Orme and Conwy Bay. The steeply sided forms of the front hills of SNP are visible against a backdrop of higher landform. Further to the south-west the view extends towards the Menai Straight with the relatively low landform of the Isle of Anglesey lying further round to the south-west.	these OWFs they will appear much larger and more prominent than is shown in this viewpoint.  The operational GyM would be visible in the seascape in views from the ferry route	
	Value of view: Medium	towards the Great Orme, the more distant	
	The seascape is not designated for its landscape or scenic interest although the seascape within the view to the south and south-west does form part of the wider settings of SNP, the Isle of Anglesey AONB and the Great Orme Heritage Coast. Views	SNP and lower lying landscape of the Isle of Anglesey to the south-west and west as well as being backdropped by the skyline hills of the Clwydian Range in views to the	
	The view towards the land generally includes only a narrow strip of landform with the uplands of SNP more readily distinguishable than other features.	The addition of the AyM OWF will not be a	
	Susceptibility to change: Low	new feature in views from the ferry but would introduce larger turbines to	
	Receptors are people using the ferry and are transient.	relatively closer range views, extend the	
	It is considered that unless conditions are very favourable passengers do not tend to stay outdoors with the purpose of looking at the view of distant landform for long periods. In good weather conditions passengers may spend time looking at the changing views, which include the coastal features and mountainous skyline of SNP to gain an impression of the North Wales coast.	length of the journey affected by WTGs being apparent in the seascape between the route and the North Wales coast.  View of WTG MDS arrangement changes	
	The baseline views are reduced from optimal since they contain numerous operational OWFs and oil and gas installations as well as coastal development.	across the array area with some of the rows notably aligned. By design the viewpoint has been selected to be from north of the Great Orme so one of the	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	The seascape within this area is large in scale and the landform of the coast appears secondary at this range to the vast sea and sky.  Sensitivity: Medium-Low – taking account of the assessed medium value of the viewpoint and the medium susceptibility to the proposed change to it.	aligned WTG rows is apparent in the foreground of the Great Orme. Notably however as the ferry moves away from this point such a relationship between the Great Orme and the westerly turbines would not occur.  The AyM WTGS are the most prominent feature in the part of the view they are visible within, however, further west the notable skyline of SNP remains visible and an important feature within the view that is unaffected by the views of the AyM WTGs.	
67: Offshore - Liverpool to Dublin Ferry route north of Conwy Bay	NOTE: Baseline view and visualisation have been digitally created using computer software and aerial photography due to the constraints of winter photography from the ferry itself.  The viewpoint has been located on one of the closest routes take by the ferry to the coast with other routes passing further to the north.  Located out at sea within North-east of Anglesey SCA. The view encompasses a 360 degree panoramic view across a large scale seascape. The digital baseline view does not show the Douglas Oil Platform and other above sea oil and gas installations that are located to the north-east of the viewpoint, however these features are likely to be influential in views as the ferry passes to the south of them. The Isle of Man may also be visible on the skyline to the north-west as well as numerous large ships within the nearby shipping lane. Fishing boats and OWF maintenance vessels may also be visible from ferry in this area.  Viewpoint located at a height of 10m AOD to represent the views obtained by passengers on the Liverpool to Dublin ferries which are mostly available from the higher decks.  Viewpoint has been selected to illustrate the change in views towards SNP and the Isle of Anglesey as passengers pass to the north of Conwy Bay.  Receptors on ferry route to/from Liverpool are transient and pass to the west and north of a succession of operational OWFs at relatively close range between	Construction/ Decommissioning: Low to Medium  Activity within array area at 10 km and vessel movements intensified in the vicinity during construction/ decommissioning work which is largely below sea surface or of limited extent - Low.  Visibility of WTG structures as they are constructed/commissioned or dismantled, which will occur over a period of less than 18 months in each instance – Medium  Operation (MDS A): Medium  Movement and structures of 34 WTGs visible at a relatively close range of 10 km and met mast apparent just to the west. 2 OSPs visible amongst the WTGs.  AyM WTGs visible across approximately 35 degrees of the wide sea view to the fore of the Rhyl Flats, North Hoyle and GyM OWFs. The larger scale and closer range of the	Construction/ Decommissioning  Moderate-Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate (Non- significant), adverse, short- term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate (Non- significant), adverse, long term, reversible.



VIEWPOINT BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
approximately 45 km of the 225 km route. If the ferry travels at a speed of approximately 30 km/hr (16 knots) the operational OWFs will form a key part of views towards the coast for approximately 1.5 hours. The OWFs are shown on Figure 1 (Annex 10.5). The varied heights of the WTGs within these OWF sites is shown in Table 17. The tallest operational WTGs are 187m to blade tip.  Although the operational OWF will have been closer to the ferry as it passed them, and therefore apparently larger in scale, at the point on the route of the viewpoint the operational OWFs seem relatively small in scale and apparently slightly smaller than the landforms seen beyond which include the Clwydian Range and Dee Valley AONB and the hill areas (Mynydd Hiraethog) to the south of Conwy. Onshore wind farms are theoretically visible on the skyline but, in reality, they are at a considerable distance so would only be seen in very good to excellent visibility.  The part of the view that is land is a relatively narrow, horizontal strip at this range compared with the vast sea and sky that predominate.  The view south towards the coast includes the landform of the Great Orme. It appears less distinct when viewed from sea level and against a backdrop of land when compared with how prominent it is in some views out to sea from the coast. However, the marked geological 'stripes' of the different rocks that form the Great Orme are not distinct in the digital baseline as they are likely to be in reality. The features on the Great Orme of the lighthouse and other buildings are also not shown and would add to its identification as a coastal landmark.  The rising and more pronounced mountain skyline of SNP is visible to the south beyond Conwy Bay. The steeply sided forms of the front hills of SNP are visible against a backdrop of higher landform. Further to the south-west the view extends towards the Menai Straight with the relatively low landform of the lisle of Anglesey lying further round to the south-west. Penmon Point extends towards the	substantially more prominent at this point on the ferry route.  Views from the ferry are transient and whilst the operational WTGs are seen at a minimum distance of 21.9 km from this specific location and viewpoint the ferry route passes at much closer range (2-5 km) to the GyM, Burbo Bank Extension and Burbo Bank OWFs as shown on Figure 13.7: Passenger Vessels within the Study Area contained in Volume 4, Annex 9.1:  Navigation Risk Assessment (application ref: 6.4.9.1). Whilst the operational OWF WTGs are smaller where the ferry passes these OWFs they will appear much larger and more prominent than is shown in this viewpoint.  The operational GyM would be visible in the seascape in views from the ferry route towards the Great Orme, the more distant SNP and lower lying landscape of the Isle of Anglesey to the south-west and west as well as being backdropped by the skyline hills of the Clwydian Range in views to the south-east.  The addition of the AyM OWF will not be a new feature in views from the ferry but would introduce larger turbines to relatively closer range views, extend the length of the journey affected by WTGs being apparent in the seascape between the route and the North Wales coast.	Likelihood of effect Requires Good, Very Good or Excellent visibility. Visibility frequency at this range: 88% Occurs most frequently in Summer and Spring.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	wider settings of SNP, the Isle of Anglesey AONB and the Great Orme Heritage Coast. Views	the ferry moves away from this point such a relationship between turbines would	
The view towards the land generally includes only a narrow the uplands of SNP more readily distinguishable than other for the susceptibility to change: Low  Receptors are people using the ferry and are transient.  It is considered that unless conditions are very favourable potent to stay outdoors with the purpose of looking at the view for long periods. In good weather conditions passengers may looking at the changing views, which include the coastal features.		alter.  The AyM WTGS are the most prominent feature in the part of the view they are visible within, however, further west the notable skyline of SNP remains visible and an important feature within the view that is unaffected by the views of the AyM WTGs. The AyM OWF would also not impinge on the views of the Great Orme or Penmon Point/Puffin Island on the IoA AONB.	
	The baseline views are reduced from optimal since they contain numerous operational OWFs and more distant oil and gas installations as well as coastal development.		
	The seascape within this area is large in scale and the landform of the coast appears secondary at this range to the vast sea and sky.		
	<b>Sensitivity: Medium-Low –</b> taking account of the assessed medium value of the viewpoint and the medium susceptibility to the proposed change to it.		



# Effects on seascape character SCA F - North Wales Open Waters

### Baseline description and sensitivity

- This SCA covers the outer, inshore waters of North Wales, coinciding broadly with a line extending north from the Great Orme where the SCA changes to SCA 28 North-east of Anglesey. The outer SCA boundaries follow the Wales Inshore Waters (12 nautical mile) limit, and the eastern boundary ends at the boundary with English waters. The southern boundary runs to the north of Constable Bank. This marks the transition to the shallows and sand banks that forms the northern edges of the near coast SCAs A to D described below.
- The SCA is has an industrialised character and includes all of GyM OWF (160 WTGs 133mm to blade tip) and North Hoyle OWF (30 WTGs 107m to blade tip), which dominate the seascape character in the east. There is strong intervisibility between these OWFs within the SCA and the turbines of the adjacent Rhyl Flats wind farm in MCA 02 to the south and the Burbo Bank and Burbo Bank Extension OWFs to the east, which also have a peripheral influence on the character. Operation and maintenance vessels are also a characteristic in the vicinity of these installations.
- The SCA also includes the Douglas oil and gas platform complex to the north of GyM. Access is restricted around the Douglas Oil Field (marked by a series of lit buoys and shipping lanes depicted on marine charts). Associated pipelines are located in the north-eastern corner of the SCA, with further installations characterising the neighbouring waters in England. There is a dredging area for marine aggregates located in the east of the SCA as well as the former Mersey Docks and Harbour Board's spoil dumping ground in the north-east corner.

- The sea depth of the large-scale offshore SCA increases gradually from approximately 10m below chart datum near Constable Bank. The seabed is formed of a thin layer of mostly coarse quaternary sediments overlying Carboniferous and Triassic sedimentary bedrock. Finer sand is found in the south-east of the MCA around the mouth of the River Conwy. There is a maximum tidal range of five to six metres, with the higher range to the east. Moderately strong east-west tidal currents occur in this MCA. In the shallower parts of the MCA to the south, sea conditions can change rapidly.
- 152 A substantial proportion of the SCA lies within the Liverpool Bay SPA. There is a rich variety of life on the seabed and in the water providing important feeding grounds for sea birds, particularly in the south-east. Marine mammals including bottlenose dolphin and grey seal can be sighted.
- 153 The dominant maritime character is one of transit: recreational vessels entering or leaving the Menai Strait/ Conwy Bay, or commercial vessels passing east and west to and from the Mersey and Dee including large vessels waiting for Liverpool Pilots to guide them safely into port. Large fishing boats target demersal fish and scallops offshore with smaller potting boats seen closer to the coast. Small recreational vessels are infrequent and tend only to use the areas to the south in the warmer months.
- 154 A number of wrecks can be found in the MCA, including collisions owing to busy approaches to the Mersey, wartime losses, and losses from minelaying activity. Several wrecks are visited by recreational divers.
- The landward views south are of the highly settled, Welsh coastline between the Dee Estuary and the Great Orme with some rising land beyond Colwyn Bay and behind Prestatyn along the northern edge of the Clwydian Range. There are more distant views west to Anglesey, south-west to the mountains of SNP and east to the developed English coast between the estuaries of the Mersey and the Ribble. More distant views of the Isle of Man, the Cumbrian Fells, and the Pennines, all provide orientation when the visibility is good in clear weather.



- 156 From the more distant extents of the SCA from the coast and with the relatively low elevation provided by viewing from ships, low-lying land and coastal developments are not visible.
- 157 The red lights on the wind turbines, lighting on the Douglas platforms and lights on ships also contribute to the sense of a more developed seascape at night. In addition, the effect of night lighting reflecting from cloudy skies is notable from many coastal areas and especially greater Merseyside.
- 158 Value of the SCA: medium-low. No part of this SCA is covered by a landscape designation. It is located well beyond the immediate setting of any nationally designated landscapes and is separated from the Isle of Anglesey AONB by an expanse of SCA 28: North-east of Anglesey. Puffin Island is the closest point on the Isle of Anglesey AONB to SCA F at a range of 13.3 km The Great Orme Heritage Coast is located at a range of over 4.5 km from SCA F with its immediate setting formed by SCA A: Llandudno Bay.
- Susceptibility to change: Low-medium. The seascape character of this SCA is large scale and without important skyline or landmark features. It does not have any remoteness or wildness characteristics. It is predominantly industrialised through the existence of operational OWF, oil platforms and other industry such as spoil dumping/ dredging and large-scale transportation vessels. The location of part of the AyM array area within this SCA does mean that it has the potential to further alter its character by directly changing its open sea surface to one that has further large moving structures emerging from it.
- Sensitivity Medium-low This takes account of the assessed medium-low value of the SCA and the low-medium susceptibility to the proposed change to it.
- 161 It is noted that the NRW (2019) Seascape and visual sensitivity assessment has attributed much of the area that corresponds with SCA F as having a medium and medium/ low sensitivity to offshore wind farm development as indicated by Figure 2c.



- Not-with-standing this the sensitivity categories set out in the NRW (2019) evidence base largely relate to potential recommended buffers for National Parks and AONBs, which have no statutory status. The division of the seascape into fifteen zones does not consider the baseline character or sensitivity of defined seascape character areas using the same criteria as the SLVIA but instead is based on:
  - The extent of visual buffers relating to designated landscape areas these inform the distances of the zones away from the coast.
  - The presence or otherwise of existing wind farms, which affects seascape character.
  - The geometry of the Welsh coastline, taking account of major headlands, major bays and the character of the coast.
- 163 These factors lead to a divergence in the SLVIA in respect of the attribution of the level of sensitivity to SCA F.

### Magnitude of change

- Construction/ Decommissioning: Low increasing to Medium-low The majority of the array area is located within this SCA. Activity within array area and vessel movements will be intensified in the vicinity during the first 2.5 years (approximately) of the construction period, resulting in a low magnitude of change. Existence and visibility of the WTG and OSP structures as they are constructed on their foundations and commissioned over the latter 2.5 years (approximately) of the construction period, or dismantled over a lesser timescale, results in a medium-low magnitude of change.
- 165 Operation (MDS A): Medium-low. The AyM offshore elements will extend the predominant OWF character influence through the introduction of approximately 26 tall, widely spaced, moving WTGs and two OSPs across a further part of SCA F North Wales Open Waters to the west of GyM. The already partially industrialised character (through the presence of operational OWF and the Douglas Oil and Gas Platform Complex) will be reinforced as a result of OWF occurring across the SCA from west to east with areas of open water remaining to the north and south, partially also affected by North Hoyle OWF to the south-east and views if Rhyl Flats OWF to the south.



### Significance of effect

- 166 Construction/ Decommissioning: Minor effect (first 2.5 years) increasing to Moderate-Minor effect (2.5 years) (Non-significant) adverse, short-term temporary.
- 167 Operation (MDS A): Moderate-Minor effect (Non-significant), adverse, long term, reversible.

### SCA 28 - North-east of Anglesey

### Baseline description and sensitivity

- This large offshore SCA lies within the wider area of sea known as Liverpool Bay, adjoining Conwy Bay SCA 2, Traeth Lafan SCA 3 and Red Wharf Bay to Moelfre SCA 6, to the south, and Dulas Bay SCA 7, Amlwch SCA 8, and North of Anglesey SCA 29 to the west. Its eastern boundary abuts the large offshore SCA F North Wales Open Waters and closer to the shore SCA A Llandudno Bay. This west to east transition between the SCAs occurs to the north of the Great Orme where there is a change in wider character influence.
- Much of the SCA is open water approaching the shore near the Great Orme, Puffin Island and Point Lynas. The dominant maritime character is of transit with shipping lanes passing inside and outside the Skerries; commercial vessels passing east and west to and from the Mersey and Dee; and recreational vessels entering or leaving the Menai Strait or Conwy Bay. Offshore areas are widely populated by large cargo ships and tankers with trawlers, scallop dredgers, smaller fishing boats and potting boats more common close to the shore. Large vessels waiting within the SCA for pilot boats into Liverpool ports are a characteristic feature. Recreational boats are particularly notable inshore during the warmer months.



- Anglesey's shoreline of rocky headlands, cliffs and islets broken up by the large bays of Red Wharf Bay, Lligwy Bay and Dulas Bay influences views from the west. Looking south-east, the Great Orme and Puffin Island to the east and west, respectively, enclose the large shallow opening of Conwy Bay, with the mountains of Snowdonia beyond. The Isle of Man and Cumbrian Fells to the north and north-east, can be seen in clear conditions. Further out to sea the land is barely visible but commercial ships are a common sight.
- Offshore wind farms at GyM and Rhyl Flats are visible in a generally eastwards direction.
- 172 Value of the SCA: Medium increasing to Medium-High closer to the coast. No part of this seascape forms part of a locally or nationally designated landscape. It does, however, form part of the wider seascape setting of the SNP and IoA AONB, parts of which are at relatively close range to the southern extents of the SCA. The North Anglesey Coast Heritage Coast is also located close to the southwestern edge of the SCA at Point Lynas and the Great Orme Heritage Coast is located at its south-eastern extents covering very small parts of the SCA.
- Susceptibility to change: Medium. The SCA is large-scale, simple and expansive. The closest parts of the landform are not markedly developed and although there is some sense of relative remoteness, they do all have prominent lighthouses and are locations frequented by visitors.
- 174 There would be a direct change to the characterising components of this SCA as the western-most part of the AyM array area lies within it. It would be located in a part of the seascape affected by views of operational OWF including GyM at relatively close range.
- Susceptibility to the AyM Offshore Elements is moderated by the relatively small proportion of the SCA that would be directly altered, although its visual effect on the wider seascape character would be far reaching. The presence of OWF development has an existing influence and this characteristic would become more defined by the proposals.



- 176 **Sensitivity Medium increasing to Medium-High closer to the coast** This takes account of the assessed medium value of the SCA and the medium susceptibility to the proposed change to it.
- 177 It is noted that the NRW (2019) Seascape and visual sensitivity assessment has attributed much of the area that corresponds with SCA 28 as having a high sensitivity to offshore wind farm development. Parts of SCA 28 are however defined in the guidance as having a medium or medium/ low sensitivity and it is within this part of the SCA that the AyM array area is located.
- 178 Not-with-standing this, the sensitivity categories set out in the NRW (2019) evidence base largely relate to potential recommended buffers for National Parks and AONBs and have no statutory status. The division of the seascape into fifteen zones does not consider the baseline character or sensitivity of defined seascape character areas using the same criteria as the SLVIA but instead is based on:
  - The extent of visual buffers relating to designated landscape areas these inform the distances of the zones away from the coast.
  - The presence or otherwise of existing wind farms, which affects seascape character.
  - The geometry of the Welsh coastline, taking account of major headlands, major bays and the character of the coast.
- 179 These factors lead to a divergence in the SLVIA in respect of the attribution of the level of sensitivity to SCA 28.

# Magnitude of change

Construction/ Decommissioning: Low increasing to Medium. Under a quarter of the array area is located within this SCA. Activity within array area and vessel movements will be intensified in the vicinity during the first 2.5 years of the construction period as the cables and foundations are installed, largely below sea surface results in a Low magnitude of change. Existence and visibility of the WTG and OSP structures as they are constructed on the foundations and commissioned over the latter 2.5 years (approximately) of the construction period, or dismantled over a lesser timescale, results in a medium magnitude of change. This occurs due to direct changes within a small part of the SCA as well as visibility of the rest of the AyM array area further to the east.



181 Operation (MDS A): Medium reducing with distance from the array area.

The AyM offshore elements will extend the predominant OWF character influence through the introduction of 8 tall, widely spaced, moving WTGs and one met mast across a further part of the SCA to the west of GyM. The already partially industrialised character, as a result of operational OWF visibility, will be reinforced as a result of OWF occurring across part of the SCA where it has the most direct association with the Great Orme.

### Significance of effect

- Construction/ Decommissioning: Minor effect (first 2.5 years) (Non-significant) increasing to Moderate effect in latter 2.5 years of construction and first phase of decommissioning (Significant) adverse, short-term temporary in the eastern part of the SCA in and around the AyM array area and southwards towards the Great Orme.
- 183 Elsewhere within the SCA Minor (first 2.5 years) increasing to Moderateminor effect in latter 2.5 years of construction (**Non-significant**), shortterm, temporary effect.
- Operation (MDS A): Moderate effect (Significant) adverse, long term, reversible in the eastern part of the SCA in and around the AyM array area (within approximately 10 km radius and southwards towards the Great Orme and Puffin Island. Moderate-Minor (Non-significant), long term, reversible elsewhere within the SCA.



# 10.11 Environmental assessment – visual resource landscape character, seascape character and AONB/ SNP Special Qualities

### 10.11.1 Introduction

- The first section of this chapter considers the visibility of MDS A and MDS B generally across the study area and provides a comparison between the two.
- In the subsequent sections of this chapter the structure of the assessment of effects is broken down slightly differently to that found in other chapters and is receptor based. The baseline of those receptors that are to be assessed in detail, as identified in the simple assessment contained in Volume 4, Annex 10.3: Simple Assessment, is described and the level of sensitivity to the AyM offshore elements is defined. Thereafter, the impact on each of the receptors during construction/decommissioning and operation are described and the effects assessed.
- In this section of the assessment the effects on landscape character and seascape character, although different to those effects that are purely visual, only occur as a result of the AyM offshore elements being visible. Therefore, they are inextricably tied. This also applies to the effects on the identified special qualities of the AONBs and the National Parks. These can only occur if the AyM offshore elements are perceived (visible) from these nationally designated landscapes.
- In order to try and simplify the interrelated assessment of the effects on visual resource, landscape character, seascape character and special qualities of the AONBs and SNP, which are interrelated, these aspects are considered together in this section as they relate to areas of land and the outlying sea. The assessment is carried out in relation to receptors located in the following areas:
  - ▲ Isle of Anglesey
  - Gwynedd
  - Snowdonia National Park
  - Conwy



- Denbighshire
- Flintshire
- 189 Where receptors relate to more than one LPA they are generally addressed when they first arise within this chapter but sometimes in relation the LPA where they primarily occur.
- The effects on the landscape, seascape and visual resource during construction and decommissioning are considered to be very similar but occurring generally in reverse order with the decommissioning taking less time but still within the defined short-term threshold of 1-5 years. Therefore, as described previously, these effects are assessed together.
- In this SLVIA the representative viewpoints are assessed first as these assessments inform the following assessments of the effects on visual receptors, landscape character, seascape character and the effects on the relevant special qualities of the nationally designated AONBs and National Park.

### 10.11.2 Views generally (MDS A and MDS B)

### MDS A

- 192 Theoretical visibility out to sea within the study area is strongly dictated by the underlying landform (Figure 3, Annex 10.5). Blade tip theoretical visibility of MDS A is shown on Figure 12a and hub height theoretical visibility of MDS A is shown on Figure 12.b. These show that away from the coast, areas of higher land provide substantial screening from more distant locations, except from more substantial hills and ridges beyond. Areas of largely flat land with no or limited intervening areas of higher elevation are shown to have more widespread theoretical visibility.
- 193 Figure 12a shows that visibility of 29-34 WTGs is theoretically possible across much of the seascape, with the exception of areas where the landform of north Anglesey and the Great Orme screens views.
- Theoretical visibility of AyM MDS A is shown to be markedly limited across the landscape of Wales whilst theoretical visibility is more widespread across the study area in England.



- Theoretical visibility of 29-34 WTGs is shown to be markedly limited in Wales and is generally restricted to coastal areas and areas inland of this by approximately 5 km. There is more widespread theoretical visibility to a greater distance to the south-west of Bangor in Gwynedd, along the north facing slopes and high summits within SNP, higher ground within Conwy and Denbighshire and across the low-lying areas to the southeast of Abergele and Rhyl where there the land is relatively flat along the Vale of Clwyd. The west and north-west facing side slopes of the Clwydian Range also provide vantage points and locations where theoretical visibility is shown across inland areas.
- 196 The hub height ZTV in Figure 12b shows a similar pattern of theoretical visibility but with reduced geographical extents associated with WTG visibility.
- Although MDS A is shown to be theoretically visible across these areas actual visibility from many inland locations is substantially reduced where there is a high incidence of intervening vegetation and buildings, which are not accounted for in the ZTVs. This is predominantly the case in the farmed, low-lying areas of Anglesey, Gwynedd, Conwy and Denbighshire where actual visibility is restricted entirely or reduced by layers of intervening hedgerows and hedgerow trees as well as pockets of woodland.
- 198 Coastal and other settlements also often have restricted actual visibility of MDS A away from the coast due to the screening provided by intervening buildings and vegetation around the settlements. This is particularly the case in England where the coastal and inland areas within the study area are markedly developed ensuring that actual visibility is not widespread. In Wales some of the coastal settlements do rise up onto sloping land to the south and this provides the potential for actual visibility over intervening areas of settlement.



- Areas where actual visibility more closely reflects theoretical visibility occur where there is little in the way of vegetation/settlement cover to provide intermediate screening. This is the case along the immediate coastline where views are across flat beaches, mudflats and seascape. Open moorland and areas of farmed land where there is a low incidence of subdivision of fields by vegetation also provide the potential for clear visibility. Examples of this are on the Great Orme, across the slopes of SNP, the farmed and moorland slopes along the eastern coast of Anglesey.
- Areas of elevated land such as the numerous, isolated small hills that are set back from the coast as well as the pockets of high ground to the south of Llandudno and Colwyn Bay and the west facing ridge of the Clwydian Range also provide locations where actual visibility of MDS A is similar to theoretical visibility.
- 201 Figure 25 illustrates the theoretical visibility of MDS A with the theoretical extent of theoretical visibility of the operational OWFs. This does not provide any information about the magnitude of the relative influence of this theoretical visibility with distance. However, it does helpfully illustrate some of the interactions between the visibility of AyM and the visibility of the operational OWFs.
- In views from England AyM MDS A is seen at a greater distance and across a similar part of the views as the operational OWFs including the relatively close-range Burbo Bank and Burbo Bank Extension OWFs. The majority the English part of the study area is shown to have theoretical visibility of three or more OWFs with extensive areas not having any views of AyM MDS A. There are shown to be very few locations where theoretical visibility of MDS A (only very small areas shown in blue at the furthest reaches of the study area) would be possible when other OWFs are not theoretically visible. These factors reduce the likely magnitude of change in views from across the English part of the study area.



- In views from locations in Wales much of the coastline and upland areas are shown to have theoretical visibility of the AyM MDS A in the context of theoretical visibility of all of the operational OWFs (indicated in brown). This is likely to reduce the magnitude of change across some areas and in some cases where the AyM MDS A would be seen in the context of the operational OWFs. However, there are some occasions where a further increase in OWF development in views will have cumulative effects of higher magnitude.
- There is shown in Figure 25 (Annex 10.5) to be less or in some cases no potential for theoretical visibility of the operational OWFs in areas to the south and west of the Great Orme and this is likely to lead to higher relative magnitudes of change as a result of the visibility of AyM MDS A when compared with views from some locations that already have a high degree of OWF influence. The distance of the operational OWFs from the east coast of Anglesey and at locations on the Gwynedd coast around Traeth Laffan means that even though some of the operational OWFs are theoretically visible their baseline influence, due to their scale and distance is less material then is the case where they are seen at closer range such as occurs in views from the eastern parts of the study area.

# MDS B compared to MDS A

The tip height and hub height ZTVs for MDS B are shown in Figures 13a and 13b respectively. The pattern of theoretical visibility is shown to be similar to that of MDS A. Whilst there are differences in the numbers of WTGs visible (due to the greater number of WTGs in the MDS B layout) and there would be differences in the vertical extent of the WTGs visible (due to the smaller height of WTGs in the MDS B layout) Figure 23 illustrates the difference in the overall extent of theoretical visibility. This shows that there is very little difference in the geographical extent of the theoretical visibility of MDS A compared with MDS B. The majority of the areas from where it is shown to be theoretically possible to see MDS A and not MDS B are shown to occur at ranges of over 35 km where the magnitude of change as a result of any visibility is likely to be low or negligible.



### 10.11.3 Isle of Anglesey

#### Effects on visual resource

- 206 Effects on the IoA visual resource are considered primarily in relation to representative viewpoints. Thereafter, where visual receptors require further assessment the effects on the views of people in settlements and using the Wales Coast Path and NCR 5 are also assessed. There is very limited theoretical visibility from the A55, North Wales Expressway (Figure 10.1, Annex 10.5 and no potential for a significant effect.
- The assessments of the representative viewpoints, with reference to viewpoint visualisations contained in Annex 10.6, then informs the assessments of the effects on landscape character, seascape character and the effects on the Special Qualities of the IoA AONB.
- Design refinements following stakeholder feedback have increased the distance of the AyM array area from the eastern coast of the IoA and reduced the extent of the horizontal and vertical fields of view affected by the AyM OWF by removing the westerly area of the AyM array area and the WTGs therein. The number of WTGs visible within the remaining AyM array area has also been reduced in all views from seascape, landscape and visual receptors.
- The main focus of the assessment is on MDS A, however, an agreed selection of viewpoints also include assessment of MDS B.
- 210 Effects on the representative viewpoints are assessed in Table 6 and thereafter are used to inform the assessments of the effects on visual, seascape and landscape receptors.



Table 6: Effect on IoA Representative Viewpoints During Construction/ Decommissioning and Operation.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Receptors are people using the coastal paths and people within the small settlement of Bull Bay. Walkers are generally transient whilst people living in Bull Bay may have static, long-term views.  Walkers moving east along WCP have AyM array area directly ahead.  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint which is at a considerable distance and is not out in the open sea but instead associated more with the coastline where the current outlook contains some development features.  This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Sensitivity: High – taking account of the assessed high value of the viewpoint and the medium-high susceptibility to the proposed change to it.	array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
2: Point Lynas - PRoW to north of lighthouse	Located within Amlwch and Environs LCA.  Point Lynas is at the transition between a number of different SCAs namely: 8 - Amlwch and Cemaes; 29 – North of Anglesey; 7 – Dulas Bay; and 28- North-east of Anglesey to the west, north-west, south-east and north-east respectively.  The viewpoint is located on the PRoW on the headland to the north of the lighthouse and coastal watch station.  Short distance from parking at settlement of Llaneilian. The PRoW is a small loop from the Wales Coast Path, which passes to the north of the lighthouse.  Expansive, large-scale sea views across more than 180 degrees of the field of view. Ships are notable on the horizon. Operational Offshore wind farms likely to be noticeable on sea skyline during Very Good to Excellent visibility conditions to east at a minimum range of 39.8 km. May be missed due to their relatively small-scale.  The view inland to the south is constrained by local landform and the lighthouse complex.  Views west along the coast include the settlements of Amlwch and Bull Bay and include the large industrial buildings near Amlwch Port and onshore wind farms beyond.	Construction/ Decommissioning: Negligible to Low  Activity within array area at 28.7 km and vessel movements intensified in the vicinity during construction/ decommissioning work, which is largely below sea surface or of limited extent – Negligible. Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance - Low.  Operation (MDS A): Low  Movement and structures of 34 WTGs visible as more prominent elements on the horizon at a distance of 28.8 km when compared with the operational OWF visible. 2 OSPs just visible amongst these.  WTGs visible across approximately 14 degrees of the wide sea view.	Construction/ Decommissioning  Minor to Moderate-Minor effect (Non-significant), adverse, short-term temporary.  Operation (MDS A)  Moderate-Minor effect (Non-significant), adverse, long term, reversible.  Operation (MDS B)  Moderate-Minor effect (Non-significant), adverse, long term, reversible. Likelihood of effect  Requires Very Good or Excellent visibility.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	The coast extends south-wards from the east side of the promontory taking in the remnants of a jetty but otherwise rugged and frequently indented with several, small, flat islets close to the coast.	View of WTG MDS arrangement changes across the array area although not markedly so.	Visibility frequency at this range: 54%.  Occurs most frequently in
	Beyond this and extending outwards is the promontory that culminates at Penmon Point with Puffin Island at its tip. These are backclothed by the mountainous edge and profile of SNP.	WTGs appear larger in height than the closest visible headland of the Great Orme, however, this is understandable due	Summer.
	The visible coastal edge extends further with the Great Orme forming the most distant coastal feature visible in the view at a range of over 28 km.	to the distance to the Great Orme. WTGs appear in a location separate from the	
	Inland to south the farmland and settled slopes around the hill of Mynydd Eilian are apparent along with several pole mounted transmission lines.	key views of the coast and mountainous skyline. This, along with the large scale and expansiveness of the sea views	
	Value of view: High	increases the capacity of the baseline	
	Located within the IoA AONB.	view to accommodate AyM.	
	Located within the North Anglesey Coast Heritage Coast.	Operation (MDS B): Low	
	LANDMAP visual and sensory evaluation - high	Movement and structures of 50 WTGs	
	Susceptibility to change: Medium-high  Receptors are people using the coastal paths. Walkers are generally transient.  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint which is at a considerable distance and is not out in the wide open sea part of the view. Instead, it is associated more with the distant coastline, although it is sufficiently distant from this not to interfere with the views of the coastal landform. This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Sensitivity: High - taking account of the assessed high value of the viewpoint and the medium-high susceptibility to the proposed change to it.	visible as more prominent elements on the horizon at a distance of 28.9 km when compared with the operational OWF visible. 2 OSPs just visible amongst these.  Similar horizontal field of view compared to MDS A as part of very wide sea views from this location.  View of WTG ADS arrangement changes across the array area although not markedly so.  WTGs appear of similar scale to the closest headland of the Great Orme. WTGs appear in a location separate from the key views of the coast and mountainous skyline. This, along with the large scale and expansiveness of the sea views increases the capacity of the baseline view to accommodate AyM.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		Mitigation measures  As a result of stakeholder feedback, the AyM array area has been reduced. This has increased the distance to the AyM array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
3: Mynydd Eilian - near trig point	Located within Amlwch and Environs LCA.  Close to inner boundary of SCA 7 – Dulas Bay with outlook extending beyond this over SCA 28 - North-east of Anglesey.  Expansive, large-scale sea views across more than 180 degrees of the field of view. Ships are notable on the horizon. Operational Offshore wind farms likely to be noticeable on sea skyline during Excellent visibility conditions to east at a minimum range of 40.7 km. May be missed due to their relatively small-scale.  Viewpoint is close to the summit of small hill (177 m AOD) reached by a PRoW from a network of minor roads and scattered settlement.  It provides an expansive outlook over the surrounding area, which includes diverse land uses. These include the settled coastline of rough, shrubby grassland with small fields and scattered properties behind to the more intense development around Amlwch beyond to the north-west and extending westwards along the distant coastline.  Further inland is rolling agricultural farmland with some notable upland areas including the extensive copper mine at Parys Mountain to the west-south-west. Onshore wind farms are also prevalent across several clusters in a westerly direction and there are large telecommunications masts on the hill to the south. The views south are along the coast to the headland at Moelfre then further indented with the relatively low promontory that extends out to the point at Penmon seen beyond and below the uplands of the edge of SNP. Puffin Island is	Construction/ Decommissioning: Negligible to Low Activity within array area at 29.6 km and vessel movements intensified in the vicinity during construction/ decommissioning work which is largely below sea surface or of limited extent – Negligible.  Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance - Low.  Operation (MDS A): Low  Movement and structures of 34 WTGs visible as more prominent elements on the horizon at a distance of 29.8 km when compared with the operational OWF visible. 2 OSPs just visible amongst these.  WTGs visible across approximately 14 degrees of the wide sea view and may be seen to increase and extend the existing OWF influence in excellent visibility	Construction/ Decommissioning  Minor to Moderate-Minor effect (Non-significant), adverse, short-term temporary. Operation (MDS A)  Moderate-Minor effect (Non-significant), adverse, long term, reversible.  Likelihood of effect Requires Very Good or Excellent visibility.  Visibility frequency at this range: 51%.  Occurs most frequently in Summer.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	The Great Orme can be seen extending out further into the seascape. It forms the limit of visibility although it may be possible to see upland areas beyond in clearer conditions.  Value of view: Medium-high  Located within the IoA AONB.LANDMAP visual and sensory evaluation – moderate.  Susceptibility to change: Medium-high  Receptors are people walking with a focus on the expansive and varied views available from this location. Walkers are generally transient.  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint which is at a considerable distance. The current outlook contains some development features although they are less prevalent in the direction towards the AyM array area.  This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Sensitivity: Medium-high - taking account of the assessed medium-high value of the viewpoint and the medium-high susceptibility to the proposed change to it.	more likely to be visible due to their larger scale.  View of WTG MDS arrangement appears fairly consistent changes across the array area.  WTGs appear in a location separate from the key views of the coast and mountainous skyline but not in the most open sector of the wide expanse of sea which extends round to the north. WTGs appear similar in scale to the closest headland of the Great Orme.  The AyM WTGs will add to the wind farm development that is already present and visible on the landward parts of the view in succession with the AyM array area views. However, the AyM array area appears very separate from these onshore wind farms and located in a very different context so that any cumulative effect is limited.  These factors, along with the large scale and expansiveness of the sea views increases the capacity of the baseline.	
		increases the capacity of the baseline view to accommodate AyM.  Mitigation measures	
		As a result of stakeholder feedback, the AyM array area has been reduced. This has increased the distance to the AyM array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
4: Moelfre Headland at sculpture	Located within Red Wharf Bay LCA Moelfre Headland is at the transition between SCAs 7 – Dulas Bay to the northwest and 6 - Red Wharf Bay to Moelfre to the south-east with outlook extending beyond this over SCA 28 - North-east of Anglesey.  The viewpoint is taken at the Bryn Wylfa (Look-out) sculpture which is located at a local high point on a PRoW set back slightly from the coastline route of the WCP. There are several paths linking around the headland with ready access from the nearby village of Moelfre.  Open sea views extend across approximately 150 degrees of the field of view. Ships are notable on the horizon. Operational Offshore wind farms likely to be noticeable on sea skyline during Very Good to Excellent visibility conditions to east at a minimum range of 36.2 km. May be missed due to their relatively small-scale.  The headland that extends out to Point Lynas and its lighthouse (just visible) lie to the north-north-west with Dulas Bay and other minor, rocky headlands intervening between this and the viewpoint. The defining edge is relatively low-lying with subdivided, farmed grassland and some woodland. There are telecommunications masts on one of the higher points with the small hill of Mynydd Eilian seen beyond.  The views south include the village of Moelfre, which screens the views of the closer sections of the coast to the south. South-east the views extend beyond Red Wharf Bay to the relatively low promontory out to the point at Penmon seen beyond and below the uplands of the edge of SNP. Puffin Island is seen to the fore of the lower hill forms east of Conwy Mountain.  The Great Orme can be seen extending out further into the seascape. It forms the limit of visibility.  An intermediate focal point within this view is formed by the low islet of Ynys Moelfre, which sits close to the coast.  Inland views do not extend far due to intervening landform and settlement. The landscape is otherwise farmed and characterised by rough pasture and small fields with patches of rocky, shrub covered undulation	Construction/ Decommissioning: Negligible to Medium-low Activity within array area at 26.7 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or of limited extent – Negligible. Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium-Low. or dismantled.  Operation Day Time (MDS A): Medium-low Movement and structures of 34 WTGs visible as more prominent elements on the horizon at a distance of 26.9 km when compared with the operational OWF visible. 2 OSPs just visible amongst these. WTGs visible across approximately 17 degrees of the sea view and may be seen to increase and extend the existing OWF influence in excellent visibility conditions. The AyM WTGs are, however, more likely to be visible due to their larger scale. View of WTG MDS arrangement relatively consistent across the array area although there is a limited degree of WTG alignment near the centre of the AyM array area. WTGs appear in a part of the view where there is some focus on the islet of Ynys Moelfre. They are part of the background	Construction/ Decommissioning  Minor effect (Non- significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate (Significant) adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate effect (Significant), adverse, long term, reversible.  Likelihood of effect  Requires Very Good or Excellent visibility.  Visibility frequency at this range: 57%.  Occurs most frequently in Summer.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	The views out to sea include vessels using the shipping lane. Although the specific ships will change and move shipping in this seascape is likely to be a	and do not dwarf the scale of the islet but are subservient to it as a feature.	
	regular occurrence.  Value of view: Medium-high	WTGs appear similar in height to the closest headland of the Great Orme.	
	Located within the IoA AONB  LANDMAP visual and sensory evaluation - moderate  Susceptibility to change (Daytime): High	The AyM array area is distinct from the views towards the coastal features of the Great Orme and the mountainous skyline. This, along with the large scale and expansiveness of the sea views increases the capacity of the baseline view to accommodate AyM.	
	Receptors are people walking with a focus on the expansive and varied views available from this location as well as wildlife watching. Walkers are generally transient although the sculpture and other features along the routes through this area are likely to encourage people to pause at certain points.		
	Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance, however, the AyM array area does form part of the backdrop of the view towards the low islet, which is part of the focus of the view. The current outlook contains some development features although they are less prevalent in the direction towards the AyM array area. This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).	Operation (MDS B): Medium-Low  Movement and structures of 50 WTGs  visible as elements on the horizon at a  distance of 26.9 km. 2 OSPs just visible  among these.  Similar horizontal field of view and relationship to coastal features compared to MDS A as part of wide sea views from	
	<b>Sensitivity: High -</b> taking account of the assessed medium-high value of the viewpoint and the medium-high susceptibility to the proposed change to it.	this location.  View of WTG arrangement changes across the array area so that there is a degree of WTG alignment near the centre of the AyM array area.  Mitigation measures	
		As a result of stakeholder feedback, the AyM array area has been reduced. This has increased the distance to the AyM array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
5: Red Wharf Bay	Located within Red Wharf Bay LCA	Construction/ Decommissioning:	Construction/ Decommissioning
	On the coast of 6 - Red Wharf Bay to Moelfre SCA with outlook extending beyond this to SCA 28 - North-east of Anglesey.	Activity within array area at 27.9 km and vessel movements intensified in the vicinity during early stage construction work which  Minor effect (significant), as short-term terms	Minor effect (Non-
	The viewpoint is located at the edge of the public car park in the small settlement at Red Wharf Bay. It is located close to the Wales Coast Path.		significant), adverse, short-term temporary
	I Views out to sea are across the rocky and sandy heach, which when the tide is I	is largely below sea surface or of limited extent – Negligible.	during early stages of construction phase and
	horizon. The sea horizon extends across approximately 50 degrees of the wider field of view and is contained between the near coastal landform to the north	Visibility of WTG structures as they are constructed/ commissioned or dismantled	latter stages of decommissioning phase.
	formed by Castell-mawr and the land on the other side of the bay at the coast north of Bwrdd Arthur.	which will occur over a period of less than 18 months in each instance – Medium-Low.	(Significant), adverse,
	Operational Offshore wind fairths likely to be noticeable off sea skyline doffing	Operation (MDS A): Medium-low	short-term temporary during latter stages of
	Very Good to Excellent visibility conditions to north-east at a minimum range of 35.4 km to Rhyl Flats. May be missed due to their relatively small-scale.	Movement and structures of 34 WTGs visible as more prominent elements on the	construction phase and early stages of
	The bay itself extends further inland backclothed by the rising coastal landform which is characterised by scattered settlement, minor roads and Pentraeth Forest as well as two telecommunications masts.	horizon at a distance of 28.1 km when compared with the operational OWFs visible. 2 OSPs just visible amongst these.	decommissioning.  Operation (MDS A)
	Wider views are restricted by the rising landform around the bay and built development.	WTGs visible across approximately 18 degrees of the contained sea view and	Moderate effect (Significant), adverse, long term, reversible.
	Value of view: High	may be seen to increase and extend the existing OWF influence when they are visible in excellent visibility conditions. The AyM WTGs are, however, more likely to be visible/influential due to their larger scale.	Operation (MDS B)
	Located within the IoA AONB		Moderate effect
	LANDMAP visual and sensory evaluation – outstanding		(Significant), adverse,
	Susceptibility to change: High		long term, reversible.
	The view is representative of receptors on the WCP as well as people in the small	View of WTG MDS arrangement relatively consistent across the array area, although	Likelihood of effect
	settlement or using the beach for recreation.  Views from this location are likely to be part of intended experience, with the	there is some limited 'stacking' of WTGs in alignment.	Requires Very Good or Excellent visibility.
	facilities offered also being part of the attraction.	WTGs appear in a part of the view where	Visibility frequency at this
	Views over the bay and out to sea are a focus of views directed by the coastal landform that encloses the view.	there is some focus created by the headlands on either side of the bay.	range: 56%. Occurs most frequently in
	Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance. However, views over the bay and	WTGs appear substantially smaller in height compared to the closest headlands.	Summer.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	out to sea are a focus of views directed by the coastal landform that encloses the view. The current outlook contains some development features.  This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Sensitivity: High - taking account of the assessed high value of the viewpoint and the medium-high susceptibility to the proposed change to it.	As a result of stakeholder feedback, the AyM array area has been reduced. This has increased the distance to the AyM array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Importantly, in this view, this means that AyM would take up just under one third of the sea horizon thus reducing its characterising influence compared with the other key features of the bay and open seascape.  Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
6: Bwrdd Arthur - north of trig point	Located within Penmon and Puffin Island LCA.  Inland on the edge of SCA 5- Penmon with sea views across SCA 6 - Red Wharf Bay to Moelfre with outlook extending beyond this to SCA 28 - North-east of Anglesey.  The viewpoint is located at the summit of this small hill, which is also a SSSI and a location of heritage interest as the site of a fort. It is in open access land with the summit reached via some worn routes from a pedestrian access in the southeast.  Large-scale, sea views (across approximately 140-degree field of view) to the north-east are gained across the shrubby hill crest from just north of the trig point.  Operational offshore wind farms likely to be noticeable on sea skyline during Very Good to Excellent visibility conditions to north-east at a minimum range of 29.9m to Rhyl Flats.  The easterly extent of the sea horizon is punctuated by the Great Orme, however, shrubby vegetation screens and filters some of the coastal views and part of the mountainous SNP skyline further round to the south-east.	Construction/ Decommissioning: Negligible to Medium  Activity within array area at 23.2 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or of limited extent – Negligible.  Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium.  Operation (MDS A): Medium  Movement and structures of 34 WTGs visible as more prominent elements on the horizon at a minimum distance of 23.4 km when compared with the operational OWF visible. 2 OSPs just visible amongst these.	Construction/ Decommissioning  Minor effect (Non- significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate effect (Significant), adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	To the south the views are more open across the settled farmland of Anglesey to the high peaks beyond. The intervening Conwy Bay and Menai Strait are not visible.  Close range and mid-distance views to the south west include telecommunications masts with Pentraeth Forest visible across an upland area and northern Anglesey extending beyond Red Wharf Bay to the west round to the north-west. Moelfre headland is just visible at the north-westerly extent of the sea horizon.  Value of view: High  Located within the IoA AONB  LANDMAP visual and sensory evaluation - high	WTGs visible across approximately 23 degrees of the sea view in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs.  View of WTG MDS arrangement relatively consistent across the array area, although there is some 'stacking' of WTGs in alignment.  WTGs appear similar in height compared to the closest headland of the Great Orme. Other sectors of the baseline view	Moderate effect (Significant), adverse, long term, reversible. Likelihood of effect Requires Very Good or Excellent visibility. Visibility frequency at this range: 64%. Occurs most frequently in Summer.
	Susceptibility to change: Medium-high  Receptors are people walking and visiting this ecological and heritage rich area with a focus on the expansive and varied views visible from the summit.	offer diversity of landscape character as well as views across to SNP, which are a prominent feature in a part of the view that is unaffected by AyM.	
	Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance. The current outlook contains some development features, including an OWF although they are less prevalent in the direction towards the AyM array area. There is some focus of views towards the mountainous skyline of SNP.	This, along with the large scale and expansiveness of the sea views and the existing OWF influence in the view increases the capacity of the baseline view to accommodate AyM.	
	This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Sensitivity: High- taking account of the assessed high value of the viewpoint and the medium-high susceptibility to the proposed change to it.	As a result of stakeholder feedback, the AyM array area has been reduced. This has increased the distance to the AyM array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
7: Penmon Point - north-east of parking	Located within Penmon and Puffin Island LCA.  Penmon Point is in the narrow SCA 5 – Penmon, which has its wider outlook across SCA 6 - Red Wharf Bay to Moelfre and 3 – Traeth Lafan with the more distant sea views encompassing SCA 28 – North-east of Anglesey.	Construction/ Decommissioning: Low to Medium  Activity within array area at 19.3 km and vessel movements intensified in the vicinity	Construction/ Decommissioning  Moderate-Minor effect (Non-significant),



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	This viewpoint is located on a rough grassland area north-east of the parking so that the lighthouse and Puffin Island are seen in the same view as the AyM array area.	during early stage construction work which is largely below sea surface or of limited extent – Low.	adverse, short-term temporary during early stages of construction
	The car park, small number of houses and visitor facilities at Penmon Point are accessible along a minor road where there is a toll paid at the Priory remains. The WCP also provides access to the Point.	Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than	phase and latter stages of decommissioning phase.
	The sea views extend to the horizon across approximately 110 degrees of the	18 months in each instance – Medium.	Major-Moderate effect
	field of view between Point Lynas in the north-west and the Great Orme to the east. However, the sea skyline is punctuated by the Trwyn Du Lighthouse (or Penmon Lighthouse) and Puffin Island. Large vessels are also visible on the skyline.	Operation (MDS A): Medium  Movement and structures of 13 WTGs  visible as more prominent elements on the horizon at a minimum distance of 19.5 km	(Significant), adverse, short-term temporary during latter stages of construction phase and early stages of
	Operational offshore wind farms likely to be noticeable on sea skyline during Very Good to Excellent visibility conditions to north-east at a minimum range of 24.6 km to Rhyl Flats.	when compared with the operational OWFs visible. 2 OSPs just visible amongst these.	early stages of decommissioning.
	Further coastal and sea views extend across the east side of Conwy Bay with the rising ground and small glimpses of the mountains of SNP visible between the former lighthouse keeper's houses and other buildings as well as rising landform to the west.	WTGs visible across approximately 12 degrees of the sea view in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs.	Operation (MDS A)  Major-Moderate effect (Significant), adverse, long term, reversible.
	Value of view: High	WTGs appear in a part of the view where	Operation (MDS B)
	Located within the IoA AONB	there is some focus created by Puffin	Major-Moderate effect
	LANDMAP visual and sensory evaluation - high	Island and the lighthouse, although it does not extend fully between these features	(Significant), adverse, long term, reversible.
	Susceptibility to change: High	due to the mitigation that has been	Likelihood of effect
	The view is representative of receptors on the WCP as well as people visiting this location or using the shingle beaches and grassy areas for recreation.	included in the layout. Different locations around the Point would result in differing	Requires Very Good or Excellent visibility.
	Views from this exposed location are likely to be part of intended experience, with the facilities offered also being part of the attraction.	relationships between these features and the WTGs. AyM is not seen in the immediate context of the Great Orme or	Visibility frequency at this range: 75%.  Occurs most frequently in
	This viewpoint is located in an area identified as Undisturbed in the Tranquillity Classification (2009).	the part of the view that is characterised by the mountainous coastline of SNP but is	
	Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance. However, views towards the lighthouse, Puffin Island and towards the Great Orme are a focus of views.	instead seen in the immediate context of OWFs.  View of WTG MDS A arrangement	
	The current outlook contains some development features.	relatively consistent across the array area.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	<b>Sensitivity: High -</b> taking account of the assessed high value of the viewpoint and the medium-high susceptibility to the proposed change to it.	WTGs appear much smaller than the closer range features of Puffin Island and the lighthouse and similar in height compared to the more distant headland of the Great Orme.	
		Operation (MDS B):	
		Movement and structures of 16 WTGs visible as prominent elements on the horizon. 2 OSPs just visible amongst these.	
		WTGs visible across a similar extent of the horizontal field of view when compared to MDS A.	
		View of WTG MDS B arrangement is fairly consistent across the array area.	
		WTGs appear in a part of the view where there is some focus created by Puffin Island and the lighthouse, although it does not extend fully between these features. Different locations around the Point would result in differing relationships between these features and the WTGs.	
		AyM is not seen in the immediate context of the Great Orme or the part of the view that is characterised by the mountainous coastline of SNP but is instead seen in the immediate context of OWFs.	
		WTGs appear much smaller than the closer range features of Puffin Island and the lighthouse and slightly smaller in height compared to the more distant headland of the Great Orme.	
		Mitigation measures	
		As a result of stakeholder feedback, the AyM array area has been reduced. This	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		has increased the distance to the AyM array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
8: Beaumaris - Wales Coast Path	Located within Eastern Menai Strait LCA.  Beaumaris is in SCA 3 – Traeth Lafan with the more distant sea views between the Great Orme and Penmon Point/ Puffin Island being within SCA 2 – Conwy Bay and encompassing SCA 28 – North-east of Anglesey beyond.  The viewpoint is located on the promenade that runs alongside the car parking and public open space to the east of the town of Beaumaris, which is popular with visitors particularly for its pier, boat trips, shops and castle. Views from Beaumaris Castle are assessed at Viewpoint 44.  The viewpoint is also on the WCP.  The sea horizon spans across Conwy Bay between the landforms of Puffin Island and Penmon Point to the north-north-east and the Great Orme to the north-east (approximately 24 degrees of the field of view).  Operational offshore wind farms likely to be noticeable on sea skyline during Very Good to Excellent visibility conditions to north-east at a minimum range of 29.5 km to Rhyl Flats.  Sea and coastal views do however extend across the wider views to the south across Conwy Bay from the Great Orme towards the entrance to the Menai Strait. This section of seascape is backclothed by the isthmus at Llandudno, which links the Great Orme and Little Orme, the uplands around Conwy Mountain and Foel Lus. Further to the south-east the uplands increase in stature to include the edge and mountainous forms of SNP, which provide containment to the views and the bay. The settlement of Bangor can be seen on the skyline at the entrance to the Menai Strait, immediately behind the Beaumaris pier. Views further south and east are constrained by woodland and settlement, which includes Beaumaris Castle and other visitor attractions, as well as rising landform.	Construction/ Decommissioning: Negligible to Medium  Activity within array area at 25.3 km and vessel movements intensified in the vicinity during early-stage construction work which is largely below sea surface or of limited extent – Negligible.  Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium.  Operation (MDS A): Medium  Movement and structures of 34 WTGs visible as prominent elements on the horizon at a minimum distance of 25.3 km and extending above Puffin Island/ Penmon Point.  2 OSPs just visible amongst these.  WTGs visible across approximately 21 degrees of the sea view in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs of GyM.  WTGs appear in a part of the view where there is some focus created along the bay between Puffin Island and the Great Orme although it does not extend fully to the	Construction/ Decommissioning  Minor effect (Non- significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Major-Moderate effect (Significant), adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Major- Moderate effect (Significant), adverse, long term, reversible.  Operation (MDS B)  Major- Moderate effect Significant, adverse, long term, reversible.  Likelihood of effect



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Value of view: High	Great Orme it is seen extending between Puffin Island and Penmon Point with WTG	Requires Very Good or
	Located within the IoA AONB	blades just apparent above Puffin Island.	Excellent visibility.
	LANDMAP visual and sensory evaluation - high	The AyM visibility occurs within a different	Visibility frequency at this range: 62%.
	Susceptibility to change: Medium-high	part of the view from the Great Orme	Occurs most frequently in
	Although on the edge of the settlement it is not representative of the views of residential receptors as these views tend to be focused across the Menai Straight towards the upland area and edge of SNP, screened by intervening landform or buildings or otherwise contain a foreground which includes some form of development.	across the Menai Straight to the	Summer.
	The view is representative of receptors on the WCP as well as people using the foreshore facilities or using the beach/ pier for recreation.	View of WTG MDS A arrangement relatively consistent across the array area,	
	Views from this location are likely to be part of intended experience, with the facilities offered also being part of the attraction.	however there are two WTGs in this WTG layout appear as outliers.	
	Views across the bay towards the SNP uplands and out to sea are a focus of views.	WTGs appear slightly taller than Puffin Island but similar in height compared to	
	This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).	he more distant headland of the Great  Drme and considerably smaller than the andform of SNP to the south-east	
	Susceptibility is moderated by the relationship of the AyM array area to the	Operation (MDS B): Medium  Movement and structures of 50 WTGs visible as prominent elements on the horizon at a minimum distance of 25.3 km. 2 OSPs just visible amongst these.	
	viewpoint, which is at a considerable distance. The current outlook contains some development features.		
	<b>Sensitivity: High -</b> taking account of the assessed high value of the viewpoint and the medium-high susceptibility to the proposed change to it.		
		WTGs visible across a similar extent of the horizontal field of view to MDS A.	
		View of WTG MDS B arrangement changes across the array area with some of the rows notably aligned.	
		WTGs appear in a part of the view where there is some focus created by Puffin Island and the Great Orme although it does not extend fully to the Great Orme it is seen extending between Puffin Island	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		and Penmon Point. Blade tips are visible above Puffin Island but may be missed.	
		WTGs appear similar in scale to Puffin Island but smaller in height compared to the more distant headland of the Great Orme. The AyM visibility occurs within a different part of the view from the Great Orme across the Menai Straight to the mountainous skyline of SNP, which is a considerable and characterising part of the views from this location that would be unaffected by AyM.	
		Mitigation measures	
		As a result of stakeholder feedback, the AyM array area has been reduced. This has increased the distance to the AyM array area to this viewpoint and reduced its vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
14: Wales Coast	Located within Dulas Bay Hinterland LCA.	Construction/ Decommissioning:	Construction/
Path near Penrhyn (Traeth yr Ora)	This section of the WCP is SCA 7 – Dulas Bay with outlook extending beyond this over SCA 28 - North-east of Anglesey.  The viewpoint is taken on the WCP close to a gated field access to the east of the property Penrhyn and south of the bay at Traeth yr Ora. This section of the WCP runs along grassy slopes above the rugged foreshore.  The open sea horizon extends across approximately 100 degrees of the field of view. Ships are notable on the horizon. Operational Offshore wind farms may to be noticeable on sea skyline during Very Good to Excellent visibility conditions to east at a minimum range of 38.5 km to Rhyl Flats. May be missed due to their relatively small-scale.	Negligible to Medium-low  Activity within array area at 28.5 km and vessel movements intensified in the vicinity during early-stage construction work which is largely below sea surface or of limited extent – Negligible.  Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium-Low.  Operation (MDS A): Medium-low	Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate effect (Significant), adverse, short-term temporary



VIEWPOINT BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
The sea horizon is constrained to the north by the coastal landform at Penrhyn Glas and to the east by the Great Orme. The small islet of Ynys Dulas lies off the relatively shallow Dulas Bay, with its small tower providing a minor focal point within the seascape. Sea views extend along the indented coastlines into Dulas Bay in the north of the view and Lligwy Bay to the south. The more distant coastal skyline is formed by the rising land of SNP and the hills around Conwy Mountain and Foel Lus nearer to the Great Orme.  Views of the inland landscape are largely constrained by intervening high ground, however, where visible the land is agricultural lowland with scattered settlement and some woodland. Tourism facilities at Lligwy Bay are obscured by landform. Telecommunications masts are visible on one of the small hills above Nebo.  Value of view: High  Located within the loA AONB  LANDMAP visual and sensory evaluation - high  Susceptibility to change: High  Receptors are people walking with a focus on the expansive and varied views available from this location as well as opportunities for wildlife watching.  This stretch of the WCP is relatively undeveloped with some sense of remoteness This viewpoint is located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance.  Sensitivity: High- taking account of the assessed high value of the viewpoint and the high susceptibility to the proposed change to it.	wide sea horizon. There are few scale features apart from distant turbines or vessels. Other sectors of the baseline view offer diversity of landscape character as	during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate effect (Significant), adverse, long term, reversible.  Likelihood of effect Requires Very Good or Excellent visibility.  Visibility frequency at this range: 54%.  Occurs most frequently in Summer.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		has increased the distance to the AyM array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
16: Benllech Bay View Road	Located within Red Wharf Bay LCA On the coast of SCA 6 - Red Wharf Bay to Moelfre SCA with outlook extending beyond this to SCA 28 - North-east of Anglesey. Viewpoint located on the WCP close to public information display, seating and parking near to Benllech beach. The open sea horizon extends across a field of view of approximately 100 degrees between the relatively close upland area at Huslan just to the north of Benllech, which is characterised by a caravan park and to the east as far as the Great Orme. Ships are notable on the horizon. Operational OWFs may to be noticeable on sea skyline during Very Good to Excellent visibility conditions to east at a minimum range of 35.8 km to Rhyl Flats. May be missed due to their relatively small-scale.  Coastal views extend further to the south-east along the eastern shores of Red Wharf Bay where the land rises as settled farmland with a transmission mast on the ridgeline.  Views inland are constrained by the wooded slopes and buildings. The settlement of Benllech rises around and above the bay and some properties would have similar if more elevated views when compared to the viewpoint.  Value of view: Medium-high  Not in a nationally or locally designated landscape although the Anglesey AONB to the north and south forms part of its setting.  Locally valued as setting for recreational and tourist activities.  LANDMAP visual and sensory evaluation - outstanding  Susceptibility to change: High	Construction/ Decommissioning: Negligible to Medium-low Activity within array area at 27.8 km and vessel movements intensified in the vicinity during early-stage construction work which is largely below sea surface or of limited extent – Negligible. Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium-Low. Operation (MDS A): Medium-low Movement and structures of 34 WTGs visible as prominent elements on the horizon at a minimum distance of 27.8 km. 2 OSPs just visible amongst these. WTGs visible across approximately 17 degrees of the open sea view in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs. View of WTG MDS A arrangement relatively consistent across the array area, although there is a slightly higher density of WTGs across the centre of the array. WTGs appear in part of the open sea view	Construction/ Decommissioning  Minor effect (Non- significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate effect (Significant), adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning. Operation (MDS A)  Moderate effect (Significant), adverse, long term, reversible. Likelihood of effect Requires Very Good or Excellent visibility.  Visibility frequency at this range: 56%.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Representative of open views of residential receptors within the settlement where these are not screened by intervening landform or buildings or otherwise contain a foreground of development.	general orientation of the WCP in this location. There are few scale features apart from distant turbines or vessels.	Occurs most frequently in Summer.
	The view is representative of receptors on the WCP as well as people using the foreshore facilities or using the beach for recreation.  Views from this location are likely to be part of intended experience, with the	The height of the WTGs appears similar to the more distant Great Orme but substantially smaller than the closer range,	
	facilities offered also being part of the attraction.	coastal landforms.	
	Views across the end of Red Wharf Bay towards the Great Orme and views out to sea are a focus of views.	AyM would not be seen immediately adjacent to the Great Orme or other	
	This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).	coastal features and this, along with the large scale and expansiveness of the sea views increases the capacity of the	
	Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance. However, views across the end of	baseline view to accommodate AyM.	
	Red Wharf Bay towards the Great Orme and views out to sea are a focus of views. The current outlook/ context contains development features.	As a result of stakeholder feedback, the	
	Sensitivity: High- taking account of the assessed medium-high value of the viewpoint and the high susceptibility to the proposed change to it.	AyM array area has been reduced. This has increased the distance to the AyM array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
28: Trwyn y Penrhyn parking	Located within Eastern Menai Strait LCA  Viewpoint is in SCA 3 – Traeth Lafan with the more distant sea views between the	Construction/ Decommissioning: Negligible to Medium	Construction/ Decommissioning
layby	Great Orme and Penmon Point/ Puffin Island being within SCA 2 – Conwy Bay and encompassing SCA 28 – North-east of Anglesey beyond.  The viewpoint is located at a small parking bay on the minor coastal road that	Activity within array area at 21.1 km and vessel movements intensified in the vicinity during early-stage construction work which	Minor effect (Non- significant), adverse, short-term temporary
	leads to Penmon Point and the priory. It is the route of the WCP.  The open sea horizon between Puffin Island and the Great Orme spans a field of view of approximately 25 degrees. Operational OWFs likely to be noticeable on sea skyline during Very Good to Excellent visibility conditions to north-east at a minimum range of 26.1 km to Rhyl Flats.	is largely below sea surface or of limited extent – Negligible.  Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium.	during early stages of construction phase and latter stages of decommissioning phase.  Moderate effect (Significant), adverse,



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
VIEWPOINT	Further coastal and sea views extend across the east side of Conwy Bay with the rising ground and views of the mountains of SNP visible beyond. Settlement is visible along the lower slopes of this coastline.  The coastal view to the north of the viewpoint includes the buildings and remains of the Augustinian, Penmon Priory and its Dovecot.  There are also rocky outcrops and cliffs visible some of which are natural and others are associated with the Flagstaff limestone quarry on the coast bellow. There are also ruined historic structures such as the lime kilns and sea walls/ stone pier.  Puffin Island is not notable as an island from this location but instead appears as part of the headland.  Value of view: Medium-high  Located within the IoA AONB  LANDMAP visual and sensory evaluation - moderate  Susceptibility to change: Medium-high  Receptors are people walking or driving with a focus on the expansive and varied views available from this section of the coast when travelling north.  This viewpoint is located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance. The current outlook has a partially developed context.  Sensitivity: Medium-high — taking account of the assessed medium-high value of the viewpoint and the medium-high susceptibility to the proposed change to it.	Operation (MDS A): Medium  Movement and structures of 23 WTGs visible as prominent elements on the horizon at a distance of 21.3 km and extending to the coast beyond and screened by Puffin Island/ Penmon Point.  2 OSPs just visible amongst these.  WTGs visible across approximately 10 degrees of the narrow sea horizon in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs of GyM.  WTGs appear in a part of the view where there is some focus created along the bay between Puffin Island and the Great Orme although it does not extend fully between these features.  View of WTG MDS A arrangement relatively consistent across most of the array area although there is some 'stacking' of WTGs where they align at the eastern end and two WTGs that appear as outliers in this MDS layout arrangement.  WTGs appear smaller than Puffin Island but similar in height compared to the more distant headland of the Great Orme. The	short-term temporary during latter stages of construction phase and early stages of decommissioning. Operation (MDS A)  Moderate effect (Significant), adverse, long term, reversible. Likelihood of effect Requires Very Good or Excellent visibility. Visibility frequency at this range: 68%. Occurs most frequently in Summer.
	viewpoint, which is at a considerable distance. The current outlook has a partially developed context.  Sensitivity: Medium-high – taking account of the assessed medium-high value of	eastern end and two WTGs that appear a outliers in this MDS layout arrangement.  WTGs appear smaller than Puffin Island but similar in height compared to the more	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		the capacity of this view to accommodate AyM.	
		Mitigation measures	
		As a result of stakeholder feedback, the AyM array area has been reduced. This has increased the distance to the AyM array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
42: Mynydd Bodafon - Trig Point	Located within Dulas Bay Hinterland LCA	Construction/ Decommissioning:	Construction/
BOGGIOTT - TING T OILTI	This is a small inland group of hills within open access land that can be reached via PRoW or from a minor road with some parking available. The viewpoint is taken from the trig point on the tallest, north-easterly, rocky summit of Yr Arwydd. There is some information on the views in each direction provided on the trig point.  Views out to the sea horizon extend across approximately 90 degrees of the field of view. This is contained to the east by the Great Orme and to the north by the upland area of Mynydd Eilian. Operational OWFs likely to be noticeable on sea skyline, only during Excellent visibility conditions, to north-east at a minimum range of 40.5 km Rhyl Flats.	Activity within array area at 31.2 km and vessel movements intensified in the vicinity during early-stage construction work which is largely below sea surface or of limited extent – Negligible.  Visibility of WTG and OSP structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance –	Minor to Moderate-Minor effect (Non-significant), adverse, short-term temporary.  Non-significant, adverse, short-term temporary.  Operation (MDS A)  Moderate-Minor effect
	Views are expansive taking in predominantly lowland agricultural land uses.  There is some settlement and operational onshore WTGs and wind farms visible on the low-lying areas to the north and north-west. Large-scale development is visible in the distance to the north-west with the Wylfa Nuclear Power Station visible on the skyline and to the west around Holyhead.	Low. Operation (MDS A): Low	(Non-significant), adverse, long term, reversible.
		Movement and structures of 34 WTGs visible as prominent elements on the horizon.	Likelihood of effect Requires Very Good or
	Views to the south and east are characterised by frequent woodland interspersed with regular fields, bounded by hedgerows and trees.  Beyond this and Red Wharf Bay is the low-lying peninsula that extends northwards to Penmon Point and Puffin Island.	2 OSPs just visible amongst these. WTGs visible across approximately 14 degrees of the sea horizon in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs of	Excellent visibility.  Visibility frequency at this range: 49%.  Occurs most frequently in Summer.



Rising above this are the mountains and uplands of SNP. Only the outer reaches of Conwy Bay are visible beyond Puffin Island and to the fore of the lower lying	GyM. WTGs appear similar in height	
upland edge of SNP around Foel Lus and Conwy Mountain.	compared to the distant headland of the Great Orme.WTGs appear separate from	
Value of view: High	the most scenic parts of the view, which is across the wooded landscape backdropped by the mountainous high ground of SNP and out to the Great Orme, across Conwy Bay.	
Located within the IoA AONB		
LANDMAP visual and sensory evaluation - high		
Susceptibility to change: Medium-high		
Receptors are people walking and visiting this heritage rich area with a focus on the expansive views visible from the summit.	This, along with the large scale and expansiveness of the sea views and the settled coastal, landscape context increases the capacity of the baseline view to accommodate AyM.  View of WTG MDS A arrangement relatively consistent across the array area.  Mitigation measures  As a result of stakeholder feedback, the AyM array area has been reduced. This has increased the distance to the AyM array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
This viewpoint is located in an area identified as Undisturbed in the Tranquillity Classification (2009).		
Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance. The current outlook contains		
the medium-high susceptibility to the proposed change to it.		
Located within Eastern Menai Strait LCA	Construction/ Decommissioning: Negligible	Construction/
Beaumaris is in SCA 3 – Traeth Lafan with the more distant sea views between the Great Orme and the rising ground being within SCA 2 – Conwy Bay and encompassing SCA 28 – North-east of Anglesey beyond.  This viewpoint is located on a part of the castle walls that is not open to the public and is currently accessed by a somewhat precarious route around the top of the castle walls. GLVIA3 advises that accessibility to the public should be taken into account when selecting viewpoints for LVIA purposes.	to Medium-Low  Activity within array area at 25.3 km and vessel movements intensified in the vicinity during early-stage construction work which is largely below sea surface or of limited extent – Negligible.  Visibility of WTG structures as they are	Minor (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning
	LANDMAP visual and sensory evaluation - high  Susceptibility to change: Medium-high  Receptors are people walking and visiting this heritage rich area with a focus on the expansive views visible from the summit.  This viewpoint is located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance. The current outlook contains numerous development features.  Sensitivity: High- taking account of the assessed high value of the viewpoint and the medium-high susceptibility to the proposed change to it.  Located within Eastern Menai Strait LCA  Beaumaris is in SCA 3 – Traeth Lafan with the more distant sea views between the Great Orme and the rising ground being within SCA 2 – Conwy Bay and encompassing SCA 28 – North-east of Anglesey beyond.  This viewpoint is located on a part of the castle walls that is not open to the public and is currently accessed by a somewhat precarious route around the	LANDMAP visual and sensory evaluation - high  Susceptibility to change: Medium-high  Receptors are people walking and visiting this heritage rich area with a focus on the expansive views visible from the summit.  This viewpoint is located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance. The current outlook contains numerous development features.  Sensitivity: High- taking account of the assessed high value of the viewpoint and the medium-high susceptibility to the proposed change to it.  Sensitivity: High- taking account of the proposed change to it.  Mitigation measures  As a result of stakeholder feedback, the AyM array area to this viewpoint and area distance. The current outlook contains numerous development features.  Sensitivity: High- taking account of the proposed change to it.  Mitigation measures  As a result of stakeholder feedback, the AyM array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to after the level of magnitude of change assessed in the PEIR.  Located within Eastern Menai Strait LCA  Beaumaris is in SCA 3 – Traeth Lafan with the more distant sea views between the Great Orme and the rising ground being within SCA 2 – Conwy Bay and encompassing SCA 28 – North-east of Anglesey beyond.  This viewpoint is located on a part of the castle walls that is not open to the public and is currently accessed by a somewhat precarious route around the top of the castle walls. GLVIA3 advises that accessibility to the public should be



VIEWPOINT BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
The specific purpose of this particular view from the most exposed part of the Castle is therefore as a cultural heritage viewpoint. However, it is particully representative of views from other, more distant, parts of the castle walls that are more commonly open to the public and where there are sofety railings. Views from these publicly accessible locations are however partially obscured by the intervening castle walls. From the majority of the castle and its surroundings it is not possible to see out in the direction of the AyM site.  The sea horizon spans across Conwy Bay between the rising landform to the north of the Castle and the Great Orme to the north-east (approximately 27 degrees of the field of view).  Operational OWFs likely to be noticeable on sea skyline during Very Good to Excellent visibility conditions to north-east at a minimum range of 29.5 km to Rhyl Flats.  Sea and coastal views do however extend across the wider views to the south across Conwy Bay from the Great Orme towards the entrance to the Menai Strait. This section of seascape is backclothed by the isthmus at Llandudno, which links the Great Orme and Little Orme, the SNP edge uplands around Conwy Mountain and Foel Lus. Further to the south-east the uplands increase in stature to include the edge and mountainous forms of SNP, which provide containment to the views and the bay.  Views to the south and west from the castle are characterised by the castle itself and the buildings of the town, set within wooded and farmed slopes, which rise above.  Close range views to the north and east from the Castle walls include visitor parking, allotments, a bowling green and picnic area as well as houses and the buildings of the disused outdoor swimming pool.  Value of view: High  Located within the loA AONB  LANDMAP visual and sensory evaluation – outstanding  Specific view of importance in relation to World Heritage Site (WHS) identified views.	Movement and structures of 26 WTGs visible as elements on the horizon beyond the intervening rising, coastal landform.  2 OSPs just visible amongst these.  WTGs visible across approximately 12 degrees of the view which is partly on the sea horizon in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs of GyM. The AyM array area would extend the OWF influence across the width of the sea horizon between the landforms but would be seen in different part of the view from the Great Orme.  AyM WTGs are partially screened from view by intervening landform and appear in a part of the view that is highly	Moderate effect (Non-Significant), adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate (Non-significant), adverse, long term, reversible.  Likelihood of effect Requires Very Good or Excellent visibility.  Visibility frequency at this range: 62%.  Occurs most frequently in Summer.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Receptors are people walking around the upper levels of the castle walls with a focus on the castle itself and its heritage interest, although its varied setting may also be of interest from this elevated vantage point. Visitors are transient as they move around the castle walls and there is no information/ interpretative material or seating that might otherwise encourage views in the direction of the Development. Whilst the view in the direction of the AyM array area is within the arc of view identified in the WHS map relating to the Conservation of the Setting the view in that direction is not a particular draw. The setting of the Castle is strongly influenced by the proximity of the town, recreational facilities, Conwy Bay/ the Menai Straight, the SNP mountainous skyline and the Great Orme which draw views more strongly.  This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance. The current outlook contains numerous development features at close range and from a landscape and visual perspective the visual amenity in the direction of the Development is scenically degraded from its optimum.  Sensitivity: Medium-high- taking account of the assessed high value of the viewpoint and the medium susceptibility to the proposed change to it.	WTGs appear similar in height compared to the headland of the Great Orme.  Mitigation measures  As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced the WTG numbers seen within this view. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	



#### Amlwch

- The town of Amlwch lies on the north east coast of Anglesey, between Cemaes and Moelfre. It is approximately 15 miles from Holyhead and Llangefni. The A5025, the longest A-road on Anglesey, runs through the town connecting it to Valley and Llanfairpwllgwyngyll on the south coast. The Wales Coast Path passes to the north of Amlwch.
- 212 Amlwch is a small town with historical interest. Visitors can explore the industrial workings of Parys Mountain, visit the local railway museum or walk along the coast from Point Lynas to Amlwch Port from where copper was exported all over the world. Historically one of the busiest ports in Wales, Amlwch was once home to nearly 10,000 people. Its industrial heritage is further evident in the town's three windmills and Amlwch Copper Kingdom visitor centre at the old harbour, Port Amlwch.
- Amlwch has a range of amenities and a weekly market. Within the area, visitors can play golf at the Bull Bay golf club or fish at various locations.
- 214 Value of views: Medium-high. The settlement is not located within a landscape planning designation. Parts of its setting are located within the Anglesey AONB and the Parys Mountain and Slopes SLA. The section of the coast to the north is part of the North Anglesey Coast.
- Susceptibility to change: Low-medium. People in settlements tend to be susceptible to changes in views from their homes and frequently visited locations. This is moderated the distance of 32 km from the AyM array area and the generally low-lying location of Amlwch to the south of the harbour and north-west of higher ground.
- 216 **Sensitivity to change: Medium-** taking account of the assessed medium-high value of the views and the low-medium susceptibility to the proposed change to them.



- The closest viewpoint to Amlwch is Viewpoint 1 (Annex 10.6). However, it shows open views towards the AyM array area in its open seascape from the Wales Coast Path north of Bull Bay. This is not similar to the views that would be obtained from Amlwch which would be more limited as shown on Figures 17.1 and 17.2 (Annex 10.5) which are the blade tip and hub height ZTVs respectively. Actual visibility from within the settlement would be less than the theoretical visibility shown due to the screening effect of intervening buildings, which also provide a development context to any views toward the AyM array area.
- 218 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to Low

### Significance of effect

- 219 Construction/ Decommissioning: Minor effect (**Not significan**t), adverse, short-term temporary.
- 220 Operation (MDS A): Minor effect (**Non-significant**), adverse, long term, reversible.

#### Moelfre

## Baseline condition and sensitivity

221 Located on Anglesey's east coast between Amlwch and Benllech, Moelfre is a former fishing village with a long maritime history. Sheltered by a substantial headland and the island of Ynys Moelfre to the north, the village encloses a small harbour. The A5108 connects the village to the A5025, connecting the village to Amlwch, Valley and Llanfairpwllgwyngyll. Bus services connect with the nearest mainline railway stations at Bangor and Llanfairpwllgwyngyll. The Anglesey Coastal Path and Wales Coast Path pass through Benllech. Much of Moelfre's appeal is due to the combination its picturesque quality, its maritime history, beaches, coastline and countryside. The village's attractions include the active Moelfre Lifeboat Station and popular Moelfre Seawatch Centre.



- The assessment of the effects on Viewpoint 4: Moelfre headland at sculpture and the assessment of the Wales Coast Path provide information about the levels of effect from these places, which may have more open views in the direction of the AyM array area than are available from the majority of the residential properties within the settlement.
- The residential areas of Moelfre are laid out around a series of relatively narrow roads with a diverse range of properties located on land that rises up from the coast. The older properties tend to be found around the port and extending north and south from this along the coastal road. More modern houses have been added to these properties and more urban areas of housing development are set further back from the coast on rising ground.
- 224 **Value of views: High**. The settlement is located within the Anglesey AONB.
- Susceptibility to change: Medium-high. People in settlements tend to be susceptible to changes in views from their homes and frequently visited locations. This is moderated the distance of 27 km from the AyM array area and the fact that the settlement tends to set back slightly from the coast with its orientation around the small beach/landing area on the south-east facing side of the Meolfre headland. There are however a small number of properties that have open views out to the open sea.
- **Sensitivity to change: High-** taking account of the assessed high value of the views and the medium-high susceptibility to the proposed change to them.



- Figures 17.1 and 17.2 (Annex 10.5) illustrate the blade tip and hub height ZTV at Moelfre. This shows theoretical visibility of parts of 29-34 turbines across the settlement. The closest viewpoint to Moelfre is Viewpoint 4 (Annex 10.6). However, it shows open views towards the AyM array area in its open seascape from the open area on the headland to the northwest. This is not similar to the majority of views that would be obtained from Moelfre. These would generally be considerably more limited due to the orientation and intervening screening provided by buildings. In addition, the magnitude of change is moderated in views from the settlement which would have a wider context that contains some form of development.
- 228 There are a small number of properties where there are open, undeveloped views towards the AyM array area.
- 229 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to Medium-low effect during construction on views from a small number of properties along the coastal edge where they have open, undeveloped views towards the AyM array area. Negligible to Low during operation from majority of settlement.

# Significance of effect

- 230 Construction/ Decommissioning: Minor to Moderate-Minor effect (Non-significant), adverse, short-term temporary from the majority of properties. Moderate effect (Significant) adverse, short-term temporary on views from a small number of properties along the coastal edge where they have open, undeveloped views towards the AyM array area.
- Operation (MDS A): Moderate-Minor effect (Non-significant), adverse, long term, reversible from the majority of properties. Moderate effect (Significant) adverse, long-term, reversible on views from a small number of properties along the coastal edge where they have open, undeveloped views towards the AyM array area.



#### Benllech

### Baseline condition and sensitivity

- 232 Benllech is a large village between Moelfre and Llanddona on the east coast of Anglesey just north of Red Wharf Bay, separated from it by a small headland area. It lies on the A5025, connecting the village to much of the coastal areas of Anglesey. The Wales Coast Path passes through Benllech. The assessments of the effects on Viewpoint 16: Benllech Bay View Road and on the Wales Coast Path consider the effects on people using the open coastal areas of the beach and promenade.
- 233 Benllech is a popular holiday destination due to its sandy beach that looks out towards Penmon Point and the Great Orme. Benllech's beach has won a European Blue Flag award and the village has previously won the 'tidiest village on Anglesey'. Resulting from its size the village has a broad range of local amenities and businesses, primarily catering to holidaymakers.
- The residential part of the settlement itself is set back from the coast slightly and lies between areas of landform that rise steeply from the coast. The housing areas tend to be on sloping ground on either side of the A5025.
- 235 **Value of views: Medium-high**. The settlement is excluded from the Anglesey AONB which lies to its north and south and forms part of its setting.
- Susceptibility to change: Medium-high. People in settlements tend to be susceptible to changes in views from their homes and frequently visited locations. The orientation of the settlement and the containment provided by the surrounding landform are such that views from the settlement are often towards the AyM array area to the north-west. Susceptibility is moderated by the distance of over 2 km from the AyM array area and the developed context of any views from the housing areas towards it, which alter the existing visual amenity.
- 237 There are a very small number of properties that have open views out to sea, such as those along the coastal section of Bay View Road and Beach Road.



238 **Sensitivity to change: Medium-high -** taking account of the assessed medium-high value of the views and the medium-high susceptibility to the proposed change to them.

- Figures 17.1a and 17.2a (Annex 10.5) illustrate the blade tip and hub height ZTV at Benllech. This shows theoretical visibility of parts of 29-34 turbines across the settlement. Open views from Benllech are illustrated by Viewpoint 16 (Annex 10.). Whilst the viewpoint shows open views towards the AyM array area in its open seascape from the promenade this is not similar to the majority of the actual views that would be obtained from the residential areas of Benllech. These would generally be more limited due to the orientation and intervening screening provided by buildings. The seascape tends to be seen as the backdrop above other houses, vegetation or development or across more confined extents than shown in Viewpoint 16. In addition, the magnitude of change is moderated in views from the settlement which would have a wider context and foreground that contains some form of development.
- 240 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to Medium-low effect during construction on views from a small number of properties along the coastal edge where they have open, undeveloped views towards the AyM array area. Negligible to Low during operation from majority of settlement.
- 241 Significance of effect Construction/ Decommissioning: Minor to Moderate-Minor effect (*Non-significant*), adverse, short-term temporary from the majority of properties. Moderate effect (*Significant*) adverse, short-term temporary on views from a small number of properties along the coastal edge where they have open, undeveloped views towards the AyM array area.
- Operation (MDS A): Moderate-Minor effect (Non-significant), adverse, long term, reversible from the majority of properties. Moderate effect (Significant) adverse, long-term, reversible on views from a small number of properties along the coastal edge where they have open, undeveloped views towards the AyM array area.



#### Llanddona

### Baseline condition and sensitivity

- 243 Llanddona is a village between Benllech and Beaumaris on the east coast of Anglesey, on high ground to the south of Red Wharf Bay. Connected via minor roads to the rest of Anglesey, its closest large settlement is Beaumaris. Llandona is popular as a holiday destination and notable for the nearby sandy beach. A small village, it has a public house but no shops.
- 244 **Value of views: Medium-high.** The settlement is excluded from the Anglesey AONB which lies on three sides of it and forms part of its setting. In addition, the area to the south-west of the settlement lies within the Beaumaris Wooded Slopes and Llandoeg Vale SLA.
- Susceptibility to change: Medium. People in settlements tend to be susceptible to changes in views from their homes and frequently visited locations. The orientation of the settlement and the containment provided by the surrounding landform and trees/ woodland are such that views from the settlement are often limited. Susceptibility is moderated by the distance of 25 km from the AyM array area, the separation from it by a wide swathe of intervening landscape and the developed context of any views towards it.
- 246 **Sensitivity to change: Medium-high -** taking account of the assessed medium-high value of the views and the medium susceptibility to the proposed change to them.

## Magnitude of change

Figures 17.1a and 17.2a (Annex 10.5) illustrate the blade tip and hub height ZTV at Llanddona. This shows theoretical visibility of parts of 29-3429-34 turbines across the north of the settlement. However, actual visibility of the AyM OWF from the settlement does not generally reflect theoretical visibility from the properties due to their orientation and intervening vegetation.



- The closest viewpoint to Llanddona is Viewpoint 6: Bwrdd Arthur (Annex 10.6). However, whilst it provides an idea of what open views would be like from a few km closer to the AyM array area the context of the views are dissimilar. In addition, the magnitude of change is moderated in views from the settlement which would have a wider context and a deep landscape foreground with layers of landscape features that contains some form of development.
- 249 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to Medium-low.

- 250 Construction/ Decommissioning: *Minor to Moderate effect* (**Non-significant**), adverse, short-term temporary.
- Operation (MDS A): Moderate effect (**Non-significant**), adverse, long term, reversible.

#### **Beaumaris**

## Baseline condition and sensitivity

- 252 Beaumaris is a town on the south coast of Anglesey, at the eastern entrance to the Menai Strait, the tidal waterway that separates Anglesey from the North Wales coast. Beaumaris is connected by the B5109 which crosses Anglesey, to Llangefni to Llangoed; and the A545 which runs along the south coast to Menai Bridge.
- Beaumaris is a prosperous town with a castle, pastel painted houses, Victorian pier, historic public houses and award-winning restaurants. Tourist accommodation includes luxury hotels and the town boasts a calendar (during normal years) which includes regular live music and local produce markets, an arts festival, Victorian Christmas celebrations and historic events within the castle walls. Beaumaris's main attraction is its medieval castle. Built by English monarch Edward I as one of the 'iron ring' of North Wales castles, the castle was unfinished due to lack of money and supplies. This fortress is a World Heritage inscribed site.



- The settlement fronts onto open water where Conwy Bay narrows at Traeth Lafan before entering the Menai Strait. Its orientation is to the south-east (as can be seen with reference to the viewpoint location plan shown in Figure 35a (Annex 10.6). Some large properties front a broad sea frontage containing car parking, visitor facilities, a promenade (Wales Coast Path) and a historic pier.
- Views out to sea to the north-east are possible from this frontage area and the pier and effects on receptors from these locations are assessed in relation to Viewpoint 8: Beaumaris Wales Coast Path and in the Wales Coast Path assessment.
- 256 However, views in that direction from the settlement's residential properties are largely obscured by the intervening buildings and landform that rises to the north of the Castle. The main focus for the properties it to the south-east to the panoramic views containing a foreground of water and the mountainous backdrop of the mountains of SNP. Views to the north-east in the direction of the AyM array area are only available from a very small number of frontage properties or are otherwise at a very oblique angle due to their predominant orientation being perpendicular to the views towards the AyM array area. The majority of the traditional properties nestle behind these and the large form of the Castle which is located on the edge of the settlement to the north-east.
- 257 More modern areas of housing extend onto the rising ground to the south-west and west however views in the direction of the AyM array area from these residential properties tend to be either partially or fully obscured by intervening built form or vegetation. Views out to sea tend do to be more available across Conwy Bay or for some up to the Great Orme.
- 258 **Value of views: High.** The settlement is located within the Anglesey AONB as well as being a focus as a World Heritage Site.



- Susceptibility to change: Medium. People in settlements tend to be susceptible to changes in views from their homes and frequently visited locations. The orientation of the settlement and the containment provided by the surrounding landform and trees/ woodland are such that views towards the sea to the north-east from the settlement are very limited. Susceptibility is moderated by the distance of 25 km from the AyM array area and the developed context of any views towards it from elevated parts of the settlement such as near the school.
- 260 **Sensitivity to change: Medium-high** taking account of the assessed high value of the views and the medium susceptibility to the proposed change to them.

- Figures 17.1a and 17.2a (Annex 10.5)) illustrate the blade tip and hub height ZTV at Beaumaris. This shows theoretical visibility of parts of 29-34 turbines across much of the residential parts of the settlement although from the hub height ZTV it can be ascertained that theoretical visibility of the WTGs is more pronounced to the west of the settlement. However, actual visibility of the AyM OWF from the settlement does not reflect theoretical visibility from the properties due to their orientation and intervening built form/ vegetation as described previously.
- There are two viewpoints in Beaumaris (Annex 10.6) Viewpoint 8 is on the Wales Coast Path/ Promenade and is the most open view obtainable towards the AyM array area from the settlement. The other is Viewpoint 44 taken from the top of Beaumaris Castle walls. It illustrates views from a more elevated location on the edge of the settlement but it is not similar to the views generally obtained from residential properties. Whilst useful to illustrate the context of the views and the visibility of the AyM WTGs from those locations the viewpoints are not representative of the general type of views towards the AyM array area from the town, which are much more limited or have a development context.
- 263 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to Medium-Low during construction Medium-low or lower during operation



- 264 Construction/ Decommissioning: Minor to Moderate effect (Non-significant), adverse, short-term temporary.
- Operation (MDS A): Moderate or lower level of effect (**Non-significant**), adverse, long term, reversible.

### Wales Coast Path Section A - Llanlleiana Head

### Baseline condition and sensitivity

- The 5 km section is along the northern coast of Anglesey from Llanlleiana Head to Ogof Goch follows the top of the rocky, incised coastline around Porth Wen and through a relatively wild and uncultivated landscape towards Bull Bay, approaching the town from the north (refer to Figure 19, Annex 10.5).
- Rugged, wild and exposed, this section of the path is rural and largely devoid of settlement. It hugs Anglesey's largely unspoilt rocky northern shoreline and passes through predominantly undeveloped countryside. This section of the WCP is classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b (Annex 10.5)).
- The path descends from Llanlleiana Head, falling gently with the characteristic, rocky coastline to Bull Bay. Expansive views over open sea to the north and north-east predominate, and in clear conditions the Isle of Man and Cumbrian Fells may be seen to the north and north-east respectively.
- 269 **Value of views: High.** The section is located within the Anglesey AONB as well as being within the North Anglesey Coast Heritage Coast.



- Susceptibility to change: Medium. People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods. The path is winding and diverse with view directions continuously altering, even when the main direction of travel may be towards the east. Views out to sea are simple and expansive. Susceptibility is moderated by the distance of 34-37 km from the AyM array area and the developed context of the closest views, which also contain the coast at Amlwch. The more distant section of the route to the west has a strong sense of remoteness and relative wildness.
- 271 **Sensitivity to change: Medium-high -** taking account of the assessed high value of the views and the medium susceptibility to the proposed change to them.

- Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the coast. This shows theoretical visibility of parts of 29-34 turbines across limited parts of the route. Actual visibility is likely to be similar to theoretical visibility due to the open, rough grass landcover, although in this type of landscape small rocky formations and gorse are likely to provide incidental screening.
- There is one viewpoint on this section of the WCP. Viewpoint 1 (Annex 10.6) is located immediately to the north of Bull Bay at the eastern end of this section and represents some of the closest section to the AyM array area, when travelling east along the route.
- Views out to sea are expansive and the AyM WTGs would not alter the character of this section of the route materially. Long range views toward the Isle of Man and the Cumbrian Fells would not be affected.
- 275 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to Low

# Significance of effect

276 Construction/ Decommissioning: Minor to Moderate-Minor effect (**Non-significant**), adverse, short-term temporary.



277 Operation (MDS A): Moderate-Minor effect (**Non-significant**), adverse, long term, reversible.

#### Wales Coast Path Section B – Amlwch

### Baseline condition and sensitivity

- 278 From Ogof Goch to Point Lynas this 7.5 km section continues along the north coast of Anglesey through Bull Bay on the coastal Bull Bay Road, leaving along the A5025 (Refer to Figure 19, Annex 10.5). The path follows the coastline to Amlwch where it turns south, away from the coast, avoiding a large industrial area and along a track and turns east to skirt the north of the town before dropping to the harbourside. Leaving the harbour, the path passes Amlwch Copper Kingdom, rising to follow the top of the rocky coastline. After briefly following a road along the coast, the path extends to the headland at Point Lynas.
- 279 Predominantly rural and backed by rough grassland, this section passes through Bull Bay and Amlwch.
- From the seafront of Bull Bay, the path gradually ascends around the bay before falling again at Amlwch. The path gradually rises again to follow the relatively wild coast to Point Lynas. Only a very small part of this section is classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b (Annex 10.5). The elevation of the path above the coastline provides expansive views north to the open Irish Sea. The views out become more contained as the path moves into the bay at Port Eilan where it is along a minor road leading to the southern end of the Point Lynas peninsula then back onto a path to the east coast.
- Value of views: High. The section is largely located within the Anglesey AONB and the North Anglesey Coast Heritage Coast. The exception is the stretch near Amlwch Port.
- 282 **Susceptibility to change: Medium.** People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods.



- 283 The path is winding and diverse with view directions continuously altering, even when the main direction of travel may be towards the east. Views out to sea are simple and expansive. Susceptibility is moderated by the distance of 29-34 km from the AyM array area and the developed context of the views around Bull Bay and the coastline near Amlwch.
- **Sensitivity to change: Medium-high -** taking account of the assessed high value of the views and the medium susceptibility to the proposed change to them.

- Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the coast. This shows theoretical visibility of parts of 29-3429-34 turbines across limited parts of the route. The main sections showing theoretical visibility are along the coast at Bull Bay as well as intermittent sections along the wilder sections between Amlwch and Lllanellian. Actual visibility is likely to be similar to theoretical visibility due to the open, rough grass landcover although in this type of landscape small rocky formations and gorse are likely to provide incidental screening.
- There are viewpoints located near to locations on either end of this route (Annex 10.5). Viewpoint 1 is located immediately to the north of Bull Bay at the western end of this section and represents the most distant section and Viewpoint 2 is located near to the eastern end, although the WCP does not actually go to Point Lynas Lighthouse, although many walkers are likely to make this extra journey.
- Views out to sea are expansive. They AyM OWF would be seen largely ahead of east bound walkers from the section of the route to the east of Amlwch Port and in the backdrop of views towards Point Lynas.
- 288 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to Low

# Significance of effect

289 Construction/ Decommissioning: *Minor to Moderate-Minor effect* (**Non-significant**), adverse, short-term temporary.



290 Operation (MDS A): Moderate-Minor effect (**Non-significant**), adverse, long term, reversible.

### Wales Coast Path Section C - Dulas Bay

### Baseline condition and sensitivity

- This 15 km section runs from south-east of Point Lynas to Moelfre (refer to Figure 19, Annex 10.5). The path follows the rocky coast south. Initially set back only slightly from the coast, at Porth yr Aber, it leaves the coast entirely striking out for Dulas where it follows a series of minor roads. Slightly undulating for most of its length, the path rises either side of Dulas Bay where it turns inland. It goes around Dulas Bay, returns to the coast, hugging the coast past Lligwy Bay to the headland between Porth Helaeth and Moelfre.
- This section is rural with widely dispersed and isolated settlements inland. Initially rugged and wild, the coastline becomes less rocky with expanses of sand at the two bays Dulas and Lligwy. This northerly section of the route is classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b (Annex 10.5).
- 293 The path hugs Anglesey's largely undeveloped rocky north-eastern shoreline and passes through rural countryside. Expansive views over open sea to the north and north-east predominate. The flat islet of Ynys Dulas with its small tower can be seen close to the coast from where the path moves to being perpendicular to the coast north of the Dulas estate. In clear conditions the Isle of Man and Cumbrian Fells may be seen.
- 294 **Value of views: High**. The section is located within the Anglesey AONB and the North Anglesey Coast Heritage Coast covers the northerly part of this section.
- 295 **Susceptibility to change: High.** People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods although they may be slow moving.



- 296 The path is winding and diverse with view directions continuously altering. The northerly coastal section of the route to the west has a strong sense of remoteness and relative wildness. Views out to sea are simple and expansive.
- 297 Susceptibility is moderated by the relationship of the receptors to the AyM array area which is located at a distance of 27-29 km.
- 298 **Sensitivity to change: High –** taking account of the assessed high value of the views and the medium-high susceptibility to the proposed change to them.

- Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the coast. This shows theoretical visibility of parts of 29-34 turbines across the majority of the route. Woodland inland creates some screening of sea views around Dulas. The main sections that are likely to have actual visibility are where the route runs close to the coast. Actual visibility is likely to be similar to theoretical visibility due to the open, rough grass landcover although in this type of landscape small rocky formations and gorse provide incidental screening.
- 300 There are four viewpoints located on or near to this section of the route (Annex 10.5). Viewpoint 2 is located near to the northern end, although the WCP does not actually go to Point Lynas Lighthouse many walkers are likely to make this extra journey. Viewpoint 41 is located along one of the more remote stretches to the north and would have less expansive sea views drawn in an easterly direction than is the case for Viewpoint 1. Viewpoint 14 is located to the south of Dulas Bay. Viewpoint 4 at Moelfre represents views from the closest part of this section to the AyM array area at approximately 27 km.
- 301 The AyM OWF would not be seen in the same part of views towards the flat islet of Ynys Dulas when travelling either in a northerly or southerly direction along the WCP, although it would be seen as part of the wider views when approaching the coast from the west (moving generally northwards).



- 302 Views out to sea are expansive. They AyM OWF would be seen ahead mostly frequently by north bound walkers. Views out to sea are drawn to the east-north-east in the direction of the AyM array area.
- 303 Long range views toward the Isle of Man and the Cumbrian Fells would not be affected.
- 304 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise Medium-low.

- 305 Construction/ Decommissioning: Minor effect (Non-significant) during early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant), adverse, short-term temporary.
- 306 Operation (MDS A): Moderate effect (**Significant**), adverse, long term, reversible.



#### Wales Coast Path Section D - Moelfre

- 307 From Moelfre headland, this 8 km section runs to Red Wharf Bay (refer to Figure 19, Annex 10.5). The path hugs the coast to Moelfre, briefly follows the A5108 along the coast through the town and continues along the top of the rocky coast after the A5108 turns inland. The path continues through open countryside set back at Nant Bychan, returning to the coast at the northern end of Traeth Bychan. Here, the route splits presumably to provide an option due to tidal variation. One route runs along the beach and one sweeps briefly inland behind a caravan park. Merging to the south the route follows the edge of a rocky cove and through the edge of the small settlement at Penrhyn where it returns to the coast. The path follows the rocky coastline to Benllech, where it is backed by various caravan parks, and joins Bay View Road at the junction with FFord Cynias. Following this road behind Benllech Sand and along the edge of the town this section then continues around the edge of the headland behind woodland before descending to approach Red Wharf Bay through woods. Turning inland of a caravan park on the coast, the path returns to the coast south of Castell Mawr before following Harry's Way along the Red Wharf Bay seafront past the sea front amenities and buildings.
- This section of the route is evenly divided between the urban settlements of Red Wharf Bay and Benllech, and the intervening countryside. Due to this settlement influence no part of the route is classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b (Annex 10.5).
- 309 Largely elevated above the more rugged and incised coast, the path is generally level with slight rises where it leads inland. Expansive views north to north-east encompass the open Irish Sea with Puffin Island and Great Orme to the east.
- 310 **Value of views: High**. The section is located largely within the Anglesey AONB. This is with the exception of the section through Benllech which is excluded.



- 311 **Susceptibility to change: Medium-high.** People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods although they may be slow moving.
- 312 The path is winding and diverse with view directions continuously altering and the character changing from rural to urbanised/ settled. Views out to sea are simple and expansive, drawn towards the north-east, particularly if moving northwards.
- 313 Susceptibility is moderated by the relationship of the receptors to the AyM array area which is located at a distance of 27-29 km.
- **Sensitivity to change: High-** taking account of the assessed high value of the views and the medium susceptibility to the proposed change to them.

- 315 Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the coast. This shows theoretical visibility of parts of 29-34 turbines across the majority of the route. Woodland, settlement and caravan parks create some screening of sea views around Penrhyn and south of Benllech.
- Otherwise, the main sections that are likely to have actual visibility are where the route runs close to the coast. Actual visibility is likely to be similar to theoretical visibility in these locations due to the open, rough grass landcover although in this type of landscape small rocky formations and gorse provide incidental screening.
- There are three viewpoints located on or near to this section of the route (Annex 10.5). Viewpoint 4 at Moelfre represents views from the north at the closest part of this section to the AyM array area at approximately 27 km. Viewpoint 16 is at Benllech and Viewpoint 5 is at Red Wharf Bay.
- 318 Views out to sea are expansive. They AyM OWF would be seen ahead mostly frequently by north bound walkers. Views out to sea are drawn to the east-north-east in the direction of the AyM array area.



- 319 The AyM OWF would be seen in the open seascape set back from the coastal features of Puffin Island and the Great Orme where they are visible in views from this section of the route.
- 320 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise Medium-low.

- 321 Construction/ Decommissioning: Minor effect (Non-significant) during early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant), adverse, short-term temporary.
- 322 Operation (MDS A): Moderate effect (**Significant**), adverse, long term, reversible.

### Wales Coast Path Section E - Red Wharf Bay/ Penmon

- 323 This 20 km section runs from the village of Red Wharf Bay to Trwyn Du (refer to Figure 19, Annex 10.5). The path leaves the town via a car park on the town's southern boundary, behind a line of trees set back from the beach, to run along the bay's shoreline intermittently following a minor road/ track along the shore.
- At the junction with Lon Y Traeth, the path diverges with one route continuing along the shoreline to the east end of the bay and one route following the foot of Mynydd Llydiarth, the two routes re-joining at Afon Nodwydd, presumably to offer an alternative during high tide. The path continues along the bay along a minor road with some settlement/ amenities rising up to Pentrellywn where it runs slightly inland alongside woodland and disused quarries to ascend onto clifftop. It continues along the high coastline of cliffs, leaving at Fedw Fawr to run inland to Mariandyrys. From the village the route follows the ridgeline of the peninsula, predominantly on minor roads/ tracks, passing inland of a disused limestone quarry and through settled farmland with some woodland, until it approaches the point of Trwyn Du along a section of rough path and some visibility of large-scale industrial/ quarrying development to the north.



- 325 Beyond the town of Red Wharf Bay and the settled landscape around the bay, this section is generally low and level as it hugs the coastline, this section is more elevated east of Red Wharf Bay, where it climbs above cliffs and follows the ridgeline of the peninsula and is relatively unsettled and relatively wild along the coast. The majority of the coastal sections of the route are classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b (Annex 10.5).
- 326 This north-facing coastline has expansive views of the Irish Sea to the north with north-easterly views more prominent when travelling south/east and views east partially enclosed by Puffin Island and Great Orme from some sections.
- 327 Value of views: High. The section is located within the Anglesey AONB.
- 328 **Susceptibility to change: High.** People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods although they may be slow moving.
- 329 Views out to sea are simple and expansive, drawn mainly towards the north but also towards the north-east if moving south/ eastwards along this section. The coastal sections of the route have a strong sense of remoteness and relative wildness.
- 330 Susceptibility is moderated by the relationship of the receptors to the AyM array area which is located at a distance of 20-28 km, although the array area may also be directly ahead of east-bound walkers for much of this section.
- **Sensitivity to change: High** taking account of the assessed high value of the views and the medium-high susceptibility to the proposed change to them.

Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the coast. This shows theoretical visibility of parts of 29-34 turbines across the majority of the route, with the exception of the eastern edge of Red Wharfe Bay. Woodland and settlement create some screening of sea views from the route between Fedw Fawr and Pentyr.



- 333 The main sections that are likely to have actual visibility are where the route runs close to the coast and from where there are open views from the ridgeline east of Pentir. Actual visibility is likely to be similar to theoretical visibility in these locations due to the open, rough grass landcover although in this type of landscape near the coast small rocky formations and gorse provide incidental screening.
- 334 There are three viewpoints located on or near to this section of the route (Annex 10.6). Viewpoint 5 is at Red Wharf Bay close to the most distant section and Viewpoint 7 at Penmon Point representing the closest section. Viewpoint 6 is to the south of the path on the summit of Bwrydd Arthur. Whilst it is a more elevated view with some foreground landscape compared with the WCP views it provides an idea of distance and context for locations along the WCP to the north.
- Views out to sea are expansive and generally to the north. AyM would be seen ahead mostly frequently by south/ east bound walkers.
- 336 AyM would be seen in the open seascape set back from the coastal features of Puffin Island and the Great Orme where they are visible in views from this section of the route. This is with the exception of the 1.5 km section of path to the east of Pentir from where it may be possible to gain open views towards AyM in the backdrop of views to Puffin Island.
- 337 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise Medium-low west of Bwrydd Arthur and Medium to the east of Bwrydd Arthur.

- 338 Construction/ Decommissioning: Minor effect (Non-significant) during early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant), adverse, short-term temporary west of Bwrydd Arthur and Major-Moderate effect (Significant) adverse, short-term, temporary to the east of Bwrydd Arthur.
- Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible west of Bwrydd Arthur and Major-Moderate effect (Significant) adverse, long term, reversible to the east of Bwrydd Arthur.



### Wales Coast Path Section F - Penmon Point

- 340 Between Trywn Du and Beaumaris this 7 km section runs along Anglesey's south-eastern coast (refer to Figure 19, Annex 10.5). Initially following a 'B' road offset from the coastline from Trwyn Du to Penmon the path runs along the back of the shoreline to Lleiniog. After a short stretch on The Avenue, the path runs between the B5109 and the shoreline to Beaumaris.
- Largely running along settled coastline, this section is generally level with a slight rise from Penmon to Glan yr afon, where the path runs inland and for a short, raised section to the north of Beaumaris. Views are southerly to easterly, taking in the Great Orme, the mouth of Menai Strait, the North Wales coast and the Snowdonia hills beyond.
- Although much of this section of the route runs along public roads parts of it are classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10b (Annex 10.5). The areas around Beaumaris and a most to the west of the route are excluded.
- 343 Value of views: High. The section is located within the Anglesey AONB.
- 344 **Susceptibility to change: High.** People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods although they may be slow moving.
- 345 Views out to sea are simple and expansive, drawn towards the open sea in the north, channelled between the Great Orme and Puffin Island but also towards the south-east over Traeth Lafan to the mountainous profile of SNP beyond. The coastal sections of the route have a sense of exposure and relative wildness in parts where they are isolated from the minor roads.
- 346 Susceptibility is moderated by the relationship of the receptors to the AyM array area which is located at a distance of 20-25 km although the array area may also be directly ahead of west-bound walkers for much of this section.



347 **Sensitivity to change: High -** taking account of the assessed high value of the views and the medium-high susceptibility to the proposed change to them.

### Magnitude of change

- Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the coast. This shows theoretical visibility of parts of 29-34 turbines across short sections of the route. Elsewhere along the route the AyM OWF is fully or partially screened from the views of people using the path by the landform of the coast and headland of Penmon. Where the AyM WTGs are visible, they will be seen in the immediate context of Penmon Point and Puffin Island. Views of the OWF are most likely to be seen by south/south-east bound walkers.
- There are three viewpoints located on or near to this section of the route (Annex 10.6). Viewpoint 7 at Penmon Point represents the closest section. Viewpoint 28 is along the route slightly to the south-west and Viewpoint 8 is at Beaumaris.
- 350 Views out to sea are expansive and generally to the north/ north-east. The AyM OWF would be seen ahead mostly frequently by north bound walkers.
- 351 The AyM OWF would be seen in the context of Puffin Island/ Penmon Point as part of their backdrop. It would be separated by a band of seascape from the Great Orme although in excellent visibility it is possible to see the GyM OWF in that part of views.
- 352 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise Medium.

# Significance of effect

- 353 Construction/ Decommissioning: Minor effect (Non-significant) during early stages of construction and latter stages of decommissioning otherwise Major-Moderate effect (Significant).
- Operation (MDS A): *Major-Moderate effect* (**Significant**), adverse, long term, reversible.



#### Wales Coast Path Section G Menai Strait

- This 14 km section along the Menai Strait takes in the south-east Anglesey coast from Beaumaris to Menai and the north Wales coast of Gwynedd from Menai Bridge to Bangor (refer to Figure 19, Annex 10.5). It follows Beaumaris's seafront along the promenade before joining the A545 via Alma Street and Castle Street. Leaving the A545 the route follows the minor road Allt Golt Bach and runs offset from the coast and through settled countryside containing a golf course. Thereafter it runs through woodland alongside a reservoir before reaching the more developed route of Lon Ganol where it passes alongside ribbon settlement and the urban area of Llandegfan before turning towards the coast at Cichie Hill.
- From here the path is more urban and follows the A545 and several coastal roads, along Menai Bridge's promenade, and under the Menai Bridge, before ascending to it along Lon Cei Bont. Crossing Menai Bridge, which has a strong sense of exposure and offers elevated views along the Menai Strait, this section then passes through Bangor. From the bridge it joins the busy A5 and is offset from the coast, separated from it by a developed edge. After passing the stadium, the WCP turns north to follow the wooded North Wales coastline before turning onto Gorad Road and Siliwen Road, set back from the coast, around the western edge of Bangor past the end of Bangor Pier; Fford Garth and Glandwyr Road along the northern coastline and proceeding along a short stretch of the A5, to Port Penrhyn.
- 357 This section is settled and urban, including the towns of Beaumaris and Menai Bridge, the village of Llandegfan and the city of Bangor. No part of this section of the WCP are classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10b.
- 358 Menai Strait encloses views from both shorelines, with southerly views from Anglesey taking in the hills of Snowdonia beyond. Trees and woodland along the strait interrupt views north and south. Towards the mouth of the strait, views across Menai Strait are increasingly open and expansive.



- 359 **Value of views: High**. The northern section is located within the Anglesey AONB. The southern section runs through the Vaynol Estate and Surrounds SLA.
- 360 **Susceptibility to change: Medium-high.** People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods although they may be slow moving.
- Views out to sea are channelled to the north-east by the valley sides of the Menai Strait out between Puffin Island, the Great Orme and Conwy Way beyond. Views are also notable from the Anglesey side towards the south-east over Bangor and Traeth Lafan to the mountainous profile of SNP beyond.
- 362 Susceptibility is moderated by the distance of 25-32 km from the AyM array area and the settled/ urban nature of the path's context.
- **Sensitivity to change: High -** taking account of the assessed high value of the views and the medium-high susceptibility to the proposed change to them.

- 364 Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the coast. This shows theoretical visibility of parts of 29-34 turbines across short sections of the route. Elsewhere along the route the AyM array area is fully or partially screened from the views of people using the path by the landform of the coast and headlands.
- Where the AyM WTGs are visible they will however be seen as part of the backdrop of Penmon Point and Puffin Island. AyM OWF would be separated by a band of seascape from the Great Orme although in excellent visibility it is possible to see the GyM OWF in that part of views. Views of the AyM OWF are most likely to be seen by north/ north-east bound walkers on Anglesey and north-east bound walkers in Gwynedd although visibility on the Gwynedd side is markedly limited by screening woodland, built form and intermediate elements.



- There are three viewpoints located on or near to this section of the route. Viewpoint 8 is at Beaumaris and represents the closest section. Viewpoint 49 is on the Menai Bridge and along the route slightly to the south-west and Viewpoint 9 is on the Pier at Bangor. The pier is not on the WCP and has more open views towards the AyM array area than are available from the WCP.
- 367 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise Low

- 368 Construction/ Decommissioning: *Minor to Moderate-Minor effect* (**Non-significant**), adverse, short-term temporary.
- 369 Operation (MDS A): Moderate-Minor effect (*Non-significant*), adverse, long term, reversible.

#### NCR 5

- 370 A section of NCR 5 passes through the IoA between the Menai Bridge and the north-west of the island where it connects with NCR 566 and traverses round to the south-west where it links with NCR 8 near Valley (Figure 11, Annex 10.5).
- 371 Value of views: Medium. The route does not coincide with areas within the Anglesey AONB except for short sections along the south-east coast of the IoA and around Valley in western Anglesey. A short section in the south-west of the IoA passes through an area that is designated as the Malltraeth Marsh & Surrounds SLA (Figure 18a, Annex 10.5).



- 372 **Susceptibility to change: Medium-low.** People using NCRs tend to do so with the purpose of travelling between places for a particular purpose, which may include recreation or for exercise and appreciation of the views/ environment through which they pass to some degree. However, NCR users generally also require more concentration on the route and other road users than walkers on LDRs. They are transient, usually moving at a moderate speed, so do not tend to have the same view for long periods.
- 373 NCR is an inland, low-lying route rather than a coastal route or one that traverses across elevated landscapes so that, except for along limited higher points, views are generally of the immediate landscape context rather than out to sea.
- 374 Susceptibility is moderated by the distance of 28-50 km from the AyM array area and the incidence of intervening screening and closer range influences in the form of landscape/ built features.
- 375 **Sensitivity to change: Medium** taking account of the assessed medium value of the views and the medium-low susceptibility to the proposed change to them.

- 376 Figure 17.1a illustrates the blade tip ZTV and Figure 17.2a illustrates the hub height ZTV along this section of the route (Annex 10.5). This shows theoretical visibility of parts of 29-34 turbines across short sections of the route along the Menai Bridge (Viewpoint 49, Annex 10.6), to the north of the settlement of Menai Bridge, to the south-west of Red Wharfe Bay and relatively high section to the west of Llanerchemedd.
- 377 Elsewhere along the route the AyM OWF actual visibility is fully or partially screened from the views of people using the NCR by landform or layers of intervening landscape features.
- 378 Actual visibility to the north of Menai Bridge and to the south-west of Red Wharfe Bay around Talwrn is likely to be largely screened due to intervening vegetation so that views from NCR 5 towards AyM may be glimpses only.



- 379 There are short sections of the route to the west of Llanerchymedd where there may be glimpsed views available to east bound cyclists of AyM OWF at a range of over 35 km.
- 380 Magnitude of change during construction, operation and decommissioning (MDS A): Low to negligible.

- 381 Construction/ Decommissioning: *Minor effect (Non-significant)*, adverse, short-term temporary.
- 382 Operation (MDS A): Minor effect (**Non-significant**), adverse, long term, reversible.

### Effects on landscape character

#### LCA 6 – Amlwch and Environs

### Baseline character and sensitivity

- 383 This is a relatively small LCA on the north-east corner of Anglesey, centred around the historic town of Amlwch. It includes the north-east coastline between Bull Bay and Point Lynas. It essentially lies within a broad, shallow valley extending down to the coastline. The town is one of several parts. The main historic town is inland, astride the A5025 road. Closer to the coast is an extensive area of disused chemical works, whilst the port fronts onto the coast. The port owes its development to the extensive mineral extraction in the 18th and 19th centuries at Parys Mountain inland.
- 384 Bull Bay is characterised by tourist developments, hotels and bed and breakfasts, as well as other tourism facilities such as the golf course. In both instances the settlement can be said to be utilitarian rather than picturesque, particularly Amlwch reflecting its industrial past. An important consideration is the inclusion of part of the LCA on the CCW/Cadw/ICOMOS Register of Landscape of Outstanding Historic Interest in Wales.



- 385 Modern wind farm development has been an increasing feature and like LCA 5, the juxtaposition of disused windmills to modern wind farms clearly reflects the importance of wind energy in this part of the island.
- 386 Amlwch contains a number of historic landscape elements associated with the copper industry and development of the town, reflected in its historic landscape designation. The port is also designated as a Conservation Area.
- 387 The area includes a variety of coastal landscape features. Cross reference to SCA 8 Amlwch and Cemaes and SCA 7 Dulas Bay.
- Walue of the landscape character: High. The coastal areas, except for the settlements, are within the Anglesey AONB and the central upland area is within the Parys Mountain and Slopes SLA. The North Anglesey Coast Heritage Coast takes in much of the coastline.
- Susceptibility to change: Medium-low. The LCA is diverse with numerous characteristics indicating human intervention over a long duration, including onshore wind farm development. The scale of the landform features is moderate and provides some containment to the LCA. The landcover provides some low-level complexity and visual screening. The coastal parts of the LCA are exposed to the large-scale seascape with the coastal areas to the north having vast panoramic views over the Irish Sea whilst with the eastern coast has a greater association north-east where the AyM array area is located. This section of the coast, to the south of Point Lynas is classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b indicating its greater wildness and remoteness characteristics.
- 390 Susceptibility is moderated by the distance to the AyM array area of over 30 km and the strength of the characteristics that define this LCA.
- 391 **Sensitivity to change Medium -** taking account of the assessed high value of the landscape and the medium-low susceptibility to the proposed change to it.



- 392 Figure 16a (Annex 10.5) illustrates the blade tip ZTV within this LCA This shows theoretical visibility of parts of 29-34 turbines across the eastern and north-western areas of the LCA but no/ very limited visibility from areas to the south and areas closer to the coast south and east of Amlwch.
- 393 Viewpoints 1, 2, 3 and 41 (Annex 10.6) have been selected to illustrate open, clear views towards the AyM OWF and illustrate maximum visibility of the WTGs. The assessments for viewpoints 1, 2 and 3 have assessed the magnitude of change as low. The lower levels of development characteristics and higher relative wildness/ tranquillity along the coastal area to the south of Point Lynas, where Viewpoint 41 is located, are likely to result in slightly higher levels of magnitude of change in this area.
- 394 The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCA is generally likely to be lower than is identified for a viewpoint.
- 395 Magnitude of change during construction, operation and decommissioning (MDS A): Medium-low to No change.

# Significance of effect

- 396 Construction/ Decommissioning: *Minor-Moderate effect to no change* (*Non-significant*), adverse, short-term temporary.
- 397 Operation (MDS A): Minor-Moderate effect to no change (Non-significant), adverse, long term, reversible.



## LCA 8 - Dulas Bay Hinterland

- 398 The LCA is focused upon the sandy, shelving coastal landscape of Dulas Bay, where low tide exposes the extensive sandy beach of Traeth Dulas (Figure 16a, Annex 10.5). As with much of this part of Anglesey, the landscape is gently undulating. The most prominent outcrop is Mynydd Bodafon. Formed by schists and quartzite pushing through the adjacent rocks, it rises to 178 metres AOD and forms the visual backdrop to the coastal landscape.
- 399 The landscape is predominantly arable/ pastoral farmland with mostly scattered settlement and a range of field sizes depending on the terrain and farming practice. There are a number of woodland blocks and tree belts in the area that are closely associated with parkland developments such as Plas Lligwy, Llys Dulas and Parciau. Further inland are areas of relict landscape archaeology associated with the 19th century encroachment on common land, with a resultant clustered settlement pattern.
- A range of habitats can be found, with the coastal zone providing an important inter tidal habitat around Traeth Dulas and Traeth Lligwy. Inland the landscape is one of improved grassland and in places, arable land. Within this, hedgerows and hedge banks are common however other semi-natural vegetation, including woodlands, scrub and marshy grasslands, are mostly scattered and isolated.
- The coastline of the LCA is relatively undeveloped. Cross reference to SCA 7 Dulas Bay.
- Value of the landscape character: Ranges from High to Medium-high. The coastal areas and inland to the upland of Mynydd Bodafon are within the Anglesey AONB (Figure 18a, Annex 10.5). The southern part of the LCA is partly within the Parciau Estatelands (Figure 18a, Annex 10.5).



- Susceptibility to change: Medium to Medium-low. The LCA is diverse with numerous characteristics indicating human intervention over a long duration, including onshore wind farm development in the north. The scale of the landform features is moderate and provides some containment to the LCA. The landcover provides some low-level complexity and visual screening.
- The coastal parts of the LCA are exposed to the large-scale seascape with the coast having an association with the seascape to the north-east where the AyM array area is located. This section of the coast, around Dulas Bay along with other inland parts of the LCA are classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b (Annex 10.5) indicating their greater tranquillity characteristics.
- Susceptibility is moderated by the relationship of the AyM array area located at a distance of over 27 km and the strength of the characteristics that define this LCA.
- Sensitivity to change Medium-high along the coastal edge to a maximum distance of 1 km where there may be a direct association with the seascape to the north-east and Medium elsewhere based on the combination of the assessed respective value and susceptibility within these areas.

Figure 16a (Annex 10.5) illustrates the blade tip ZTV within this LCA This shows theoretical visibility of parts of 29-34 turbines across the coastal area and extending inland along three 'fingers' with theoretical visibility determined by the screening effects of the upland landforms. Western and southern areas of the LCA are should not have no/ very limited visibility. Actual visibility from lower lying areas of the landscape where it is set back from the coast is likely to be markedly limited by intervening vegetation and, in some areas, built form. Viewpoint 14 illustrates this influential landcover within the area of ZTV lying between the viewpoint and the coastline.



- Inland the character of the landscape is largely experienced by people on roads, which are in this area often lined or influenced by some localised vegetation which screens and influences views from these areas. This is in addition to the characterising influence of any landscape features that are part of the immediate context. Together with landform and scattered settlement, as well as other components of the landscape, these features are the main characterising elements of the landscape with the seascape forming part of the backdrop and wider context in the landscape character experienced from some parts of these areas thus reducing the levels of magnitude arising as a result of the offshore elements of AyM.
- Viewpoints 14 and 42 (Annex 10.6) have been selected to illustrate open, clear views towards the AyM array area and illustrate maximum visibility of the WTGs. The assessments for Viewpoints 14 and 42 have assessed the magnitude of change as Medium-low and Low respectively at these locations. This indicates the lower levels of development characteristics and higher relative wildness/ tranquillity of the baseline within this part of the LCA where Viewpoint 14 is located as well as the very direct and closer-range visibility of the AyM array area from that location. The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCA is generally likely to be lower than is identified for a viewpoint.
- 410 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise Medium-low to No change.

411 Construction/ Decommissioning: Minor effect (Non-significant) adverse, short-term temporary during early stages of construction and latter stages of decommissioning, otherwise Moderate effect (Significant) adverse, short-term temporary along the coastal edge extending to a maximum of 1 km inland where there may be direct association with the seascape to the north-east from areas of higher sensitivity. Moderate-Minor effect (Non-significant), adverse, short-term temporary elsewhere within this LCA.



412 Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible along the coastal edge extending to a maximum of approximately 1 km where there may be a direct association with the seascape to the north-east. Moderate-Minor effect (Non-significant), adverse, long term, reversible elsewhere.

#### LCA 9 – Red Wharf Bay

### Baseline description and sensitivity

- The LCA (Figure 16a, Annex 10.5) has been established around the broad, open sweeping Red Wharf Bay, with the inland boundaries based upon breaks of slope and edge of vista. It includes the historic settlement of Moelfre and the more modern, tourist-based settlement at Benllech, with extensive ribbon development along minor roads to the west. In addition, there are a number of caravan and camping sites, which contribute to the area's character but are also visual detractors. As such they have a detrimental effect upon the character and quality of the area.
- The southern edge of the LCA is demarcated by Mynydd Llwydiarth. Formerly an unenclosed rocky outcrop, it has been subject to extensive conifer planting in the 20th Century and forms an important woodland block on the island. Other woodlands, primarily broadleaved, exist inland from Benllech and Pentraeth, and these form distinctive landscape elements. Elsewhere areas of limestone pavement and associated habitats are found, as are areas of quarrying.
- 415 Further inland the LCA abuts the rural, agricultural heartland of Anglesey, which is typified by mixed patterns of field sizes and settlement, and has a gently rolling land form. Within this, areas of wetland and mire exist.
- 416 Benllech forms a substantial settlement in its own right and is locally influential, along with the main A5025 that runs through the LCA. However, a key characterising influence on the LCA is the coastline and seascape whereby landscape character is influenced by the consciousness of the sea and open sweeping vistas that subsume the development pattern around the bay, particularly at low tide when the vast beach areas are visible.

417 Cross reference to SCA 6 – Red Wharfe Bay to Moelfre.



- Value of the landscape character: Ranges from High to Medium. The coastal areas (except Benllech) and inland to the south of Red Wharfe Bay are within the Anglesey AONB.
- 419 **Susceptibility to change: Medium-low to medium.** The LCA is diverse with numerous characteristics indicating human intervention over a long duration, including settlement and extensive caravan parks. The scale of the landform features is moderate and provides some containment to the LCA. The landcover provides some low-level complexity and visual screening.
- The coastal parts of the LCA and areas around the bays are exposed to the large-scale seascape, which provides a key component of their character. The coastal areas have a strong association with the seascape to the north-east where the AyM array area is located as a result of the embayment and orientation of the coastlines. The section of the coast and inland from Red Wharf Bay along with other inland parts of the LCA are classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b indicating their higher tranquillity characteristics.
- Susceptibility is moderated by the distance to the AyM array area of over 23 km and the strength of the characteristics that define this LCA.
- 422 **Sensitivity to change Medium** inland **Medium-high** along coastal areas with a strong association with the seascape to the north-east based on the combination of the assessed respective value and susceptibility within these areas.



- Figure 16a (Annex 10.5) illustrates the blade tip ZTV within this LCA. This shows theoretical visibility of parts of 29-34 turbines across much of the coastal area and extending inland to the north and south-west back from Red Wharfe Bay. Theoretical visibility inland is shown to be sporadic within the central part of the LCA with theoretical visibility determined by the screening effects of the rolling landforms. Extreme western and southern areas of the LCA are shown to have no/ very limited visibility. Actual visibility from lower lying areas of the landscape where it is set back from the coast is likely to be markedly limited by intervening vegetation and by built form in the north-west in particular.
- Viewpoints 4, 5 and 16 (Annex 10.6) have been selected to illustrate open, clear views towards the AyM OWF and illustrate maximum visibility of the WTGs. The assessments for these viewpoints have assessed the magnitude of change as Medium-low at these locations. The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCA is generally likely to be lower than is identified for a viewpoint.
- Inland the character of the landscape is largely experienced by people on roads, which are in this area often lined or influenced by some localised vegetation, which screens and influences views from these areas. This is in addition to the characterising influence of any landscape features that are part of the immediate context. Together with landform and scattered settlement, as well as other components of the landscape, these features are the main characterising elements of the landscape with the seascape forming part of the backdrop and wider context in the landscape character experienced from some parts of these areas thus reducing the levels of magnitude arising as a result of the offshore elements of AyM.
- 426 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise Medium-low to No change.



- 427 Construction/ Decommissioning: Minor effect (Non-significant) adverse, short-term temporary during early stages of construction and latter stages of decommissioning, otherwise Moderate effect (Significant) adverse, short-term temporary along the coastal edge extending to a maximum of 1 km inland where there may be a direct association with the seascape to the north-east from areas of higher sensitivity. Moderate-Minor effect (Non-significant), adverse, short-term temporary elsewhere within this LCA.
- Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible along the coastal edge extending to a maximum of approximately 1 km between Moelfre headland and Benllech and south of Benllech and round Red Wharfe Bay to a point level with Ty-mawr north of Pentraeth Forest where there may be a direct association with the seascape to the north-east. Moderate-Minor effect (Non-significant), adverse, long term, reversible elsewhere.

#### LCA 10 – Penmon and Puffin Island

## Baseline description and sensitivity

This is a small LCA (Figure 16a, Annex 10.5) and includes an open, exposed plateau and promontory on the south-eastern edge of the island. The land generally falls to the north. The highest point is Bwrdd Arthur (a hillfort), rising to 164 metres AOD, which is on a steeper scarp that falls gently to west and east. The area is essentially that part of the loA underlain by carboniferous limestone. In the past this has been an important area for quarrying, and this has carried on, with Dinmor Quarry supplying stone for the building of the A55. The site has now been restored, retaining the water filled excavated areas and there are two very large buildings housing fish farming businesses.



- Inland the boundary is marked by the wooded, minor scarp overlooking Llangoed Vale. There are pockets of woodland and across this LCA and occurring more often to the east where they combine with overgrown hedges and hedgerow trees to create quite a compartmentalised landscape. The western area is more open with woodland mainly restricted to steeper land that steps down to the coast from Bwrdd Arthur and showing evidence of previous quarrying.
- 431 The landscape is generally farmed with a variety of field sizes subdivided by hedgerows and some stone walls. There are areas of rough, unimproved grassland and gorse across areas extending in from the rocky coastline. Tracks leading to farms and other properties connect to the west east running minor road to the south.
- Historically and culturally the area includes some of the most important ecclesiastical sites on Anglesey and exhibits continuity of land use from pre-historic times through to today. The LCA includes the CCW/ Cadw/ ICOMOS Penmon Landscapes of Outstanding Historic Interest in Wales. Puffin Island (Ynys Seiriol) is included with the LCA due to the geological, historic and cultural links. Puffin Island, together with the coastal zone exhibit a number of important habitats (designated an SSSI) as well as cultural heritage sites. Just west of Puffin Island is an islolated lighthouse set within the seascape, close to the shore and together these features form a key landmark and provide a strong sense of place.
- 433 Most of this LCA is classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b indicating their higher tranquillity characteristics.
- 434 Cross reference to SCA 5 Penmon.
- Value of the landscape character: High The majority of the LCA is within the Anglesey AONB (Figure 18a, Annex 10.5). A wooded pocket on the southern edge is included within Beaumaris Wooded Slopes and Llandoeg Vale SLA (Figure 18a, Annex 10.5).



- Susceptibility to change: Medium. The LCA is relatively simple with the north sloping landform providing an association with the seascape to the north although woodland and tall hedgerows provide low-level compartmentalisation and screening of wider views, from areas in the east. The coastal parts are exposed to the large-scale seascape with the coast having a strong association with the seascape to the north that extends to the north-east where the AyM array area is located. The scale of the landform features is relatively small compared to the majority of the land within the LCA although it provides some containment to the LCA partially separating it from areas to the south.
- 437 The former quarry areas and limestone works, large-scale fish farm buildings and other built development including ecclesiastical buildings and the lighthouse indicate a human influence over this land over a long duration.
- 438 Most of this land is classified as 'Undisturbed' in the Tranquillity Classification (2009) (Figure 10b, Annex 10.5).
- Susceptibility is moderated by the distance to the AyM array area of over 16.5 km and the strength of the settled characteristics that define much of this LCA.
- **Sensitivity to change Medium-high -** based on the combination of the assessed high value and medium susceptibility of the landscape to the proposed development within these areas.



- Figure 16a (Annex 10.5) illustrates the blade tip ZTV within this LCA. This shows theoretical visibility of parts of 29-34 turbines across much of the coastal area and extending inland. This is with the exception of the area to the west of Bwrdd Arthur, which has no theoretical visibility of the AyM Offshore Elements. Theoretical visibility inland is shown to be less widespread within the southern and eastern parts of the LCA. Actual visibility of the AyM OWF within this LCA will be reduced, particularly in the eastern, inland areas, by intervening tall hedges and tree cover which screen and filter views, particularly from roadside locations and routes from where the character of the landscape is generally perceived. This vegetation cover and pattern is visible in Viewpoint 6. This is with the exception of the coastal areas which generally remain exposed to the north and north-easterly seascape and which provides one of its predominant characteristics.
- Viewpoints 6 and 7 have been selected to illustrate open, clear views towards the AyM OWF and illustrate maximum visibility of the WTGs. The assessments for these viewpoints have assessed the magnitude of change as Medium at these locations where there is particularly high exposure and relationship with the seascape as occurs within the coastal and elevated parts of this LCA.
- The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCA is generally likely to be lower than is identified for a viewpoint and this is particularly the case where other characteristics are more prominent features of character such as in the inland eastern and eastern parts of this LCA.
- 444 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to no change during early stages of construction and latter stages of decommissioning, otherwise Medium to No change.
- 445 The Medium magnitude of change relates to the coastal, northerly exposed areas of the LCA, extending inland to a maximum of 0.5 to 0.75 km and excluding the settled inland and former quarry area to the east.



- 446 Construction/ Decommissioning: Minor effect (Non-significant) adverse, short-term temporary during early stages of construction and latter stages of decommissioning, otherwise Moderate effect (Significant), adverse, short-term temporary in the coastal, northerly exposed areas of the LCA, extending inland to a maximum distance of 0.5 to 0.75 km. Moderate-Minor (Non-significant), adverse, short-term temporary to the west of Bwrdd Arthur and in the settled inland and former quarry area to the east.
- Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible in the coastal, northerly exposed areas of the LCA, extending inland to a maximum of 0.5 to 0.75 km. Moderate-Minor (Non-significant), adverse, long term, reversible to the west of Bwrdd Arthur and in the settled inland and former quarry area to the east.

#### LCA 11 – Eastern Menai Strait

- This is a relatively long, narrow LCA (Figure 16a, Annex 10.5) covering much of the south-east Anglesey coast along the eastern section of the Menai Strait. It extends from Menai Bridge to Beaumaris. Its inland boundary is formed by the break of slope, separating it from the main plateau area of Anglesey. The area is typified by wooded flanks along the Menai Strait, which form a substantial landscape and nature conservation resource. Further inland, the area is more characterised by areas of improved agricultural land interspersed with areas of scattered semi-natural vegetation. The inter-tidal zone is also a significant nature conservation resource and has been included within the proposed Marine Nature Reserve.
- The settlements along the coast exhibit varying qualities and character although traffic and more modern development have affected these. The settlement of Menai Bridge is closely related to the construction of Telford's Bridge and the A5 road that crosses Anglesey as well as being bounded by two further A class routes. Llanfair Pwllgwyngyll was tied in with the Chester Holyhead railway in the mid-19th century.



- Beaumaris is one of the primary historic sites on IoA, being one of King Edward's castle sites built in the 14th century with the resultant forced movement of local inhabitants to Newborough. It is now part of a World Heritage Site. The town is also designated as a Conservation Area. The eastern part of the LCA lies within the CCW/ Cadw/ ICOMOS Penmon Landscape of Outstanding Historic Interest in Wales. It includes the deer park (one of three on the IoA) built in the early 18th century. It is associated with the Bulkeley family, one of the most important families on the IoA.
- Beyond the main settlement boundaries there is a prominent pattern of small villages and ribbon development along the major and minor roads. This is particularly the case in the vicinity of Llandegfan and also to the north of the Baron Hill Deer Park at Beaumaris.
- An important consideration of the LCA is its close visual interrelationship with the mainland and the borrowed views towards Snowdonia from the A545 and higher slopes. In many ways the Menai Strait forms a distinct landscape unit which seems separate and divorced from the rest of the island. However, it does establish the initial visual appreciation of Anglesey for many visitors and travellers.
- Part of the LCA to the north of Beaumaris is classified as 'Undisturbed' in the Tranquillity Classification (2009) (Figure 10b, Annex 10.5).
- 454 Cross reference to SCA 3 Traeth Lafan and SCA 4 Menai Strait.
- 455 Value of the landscape character: High. Much of the LCA is within the Anglesey AONB. This is with the exception of the areas around and to north and north-east of Menai Bridge and in the vicinity of Llanfair Pwllgwyngyll.
- 456 Susceptibility to change: Medium around and to the south of Beaumaris, Medium-high to the north of Beaumaris. The LCA is relatively complex with a varied landcover of settlement, farmland, numerous routes and wooded areas. The overarching characteristics emanate, however, from slopes that run east-south-east to the coast and the interrelationship with the seascape and landscapes beyond.



- These vary along the length of the LCA. To the south-west of Beaumaris, the association with the landscape around Bangor and beyond to the mountains of SNP to the south-east across the Menai Strait and Traeth Lafan is a strong characteristic. However, to the north-east of Beaumaris the association with the sea is more defined by Conwy Bay and the enclosing landforms around Conwy Mountain, and the Great Orme and framed on the west side by Penmon Point and Puffin Island. This results in this section of the LCA having a greater association with the seascape containing the AyM Offshore Elements.
- 458 Much of the land to the north of Beaumaris is classified as 'Undisturbed' in the Tranquillity Classification (2009) (Figure 10b, Annex 10.5).
- Susceptibility is moderated by the distance to the AyM array area of between around 20-34 km and the strength of the settled characteristics that define much of this LCA.
- 460 **Sensitivity to change Medium-high** (Beaumaris and south-west) to **high** (north-east of Beaumaris) based on the combination of the assessed respective value and susceptibility within these areas.

- 461 Figure 16a (Annex 10.5) illustrates the blade tip ZTV within this LCA. This shows theoretical visibility of parts of 29-34 turbines across parts of the LCA. Theoretical visibility is restricted to the north by intervening landform located to the north in LCA 10. Theoretical visibility increases to the north and south of Beaumaris and is shown to occur along the higher slopes to the south-west around Llandegfan. Elsewhere the visibility is limited or there is no theoretical visibility.
- Away from the coast actual visibility of AyM is likely to be limited due to tree cover and screening by intervening built development.
- Coastal areas along the stretch of the LCA that runs to the north of Beaumaris will have a varied range of visibility of the AyM OWF in close association with the views of Penmon Point and Puffin Island.



- Viewpoints 8, 28 and 48 (Annex 10.6) have been selected to illustrate open, clear views towards the AyM OWF and show a range of AyM WTG visibility. The assessments for viewpoints 8 and 28 identify the magnitude of change as Medium at these locations where there is particularly high exposure and relationship with the contained views of the seascape as occurs within the coastal and elevated parts of this LCA.
- The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCA is generally likely to be lower than is identified for a viewpoint and this is particularly the case where other characteristics are more prominent features of character such as in the inland and southern parts of this LCA.
- 466 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to no change during early stages of construction and latter stages of decommissioning, otherwise Medium to No change
- The Medium magnitude of change relates to the coastal, north-easterly exposed areas to the north of Beaumaris and south of Viewpoint 28 Trwyn y Penrhyn parking layby, extending inland by 0.3-0.5 km. Elsewhere in this LCA the magnitude of change in character will be lower or there will be no change.

- 468 Construction/ Decommissioning: Minor effect (Non-significant) during early stages of construction and latter stages of decommissioning, otherwise Moderate-Major effect (Significant), adverse, short-term temporary in the coastal, north-easterly exposed areas to the north of Beaumaris and south of Viewpoint 28 Trwyn y Penrhyn parking layby, extending inland by 0.3-0.5 km.
- 469 **Minor effect (Non-significant)**, adverse, short-term temporary elsewhere within the LCA.
- 470 **Operation (MDS A):** *Moderate-Major effect (Significant)*, adverse, long term, reversible in the coastal, north-easterly exposed areas to the north of Beaumaris, and south of Viewpoint 28 Trwyn y Penrhyn parking layby, extending inland by 0.3-0.5 km.



471 **Minor effect (Non-significant)**, adverse, long term, reversible elsewhere within the LCA.

## Effects on seascape character

#### SCA 3 – Traeth Lafan

- This SCA comprises part of the east coast of Anglesey, the western part of Conwy Bay, and the northern coast of the Mainland between Llanfairfechan and Penrhyn (Figure 5, Annex 10.5). It includes the extensive intertidal sand and mud flats of Traeth Lafan. Conwy Bay SCA 2 lies to the east, Menai Strait SCA 4 to the south-west, Penmon SCA 5 including Puffin Island to the north-west. North-east of Anglesey SCA 28 lies to seaward. The SCA is partially within the Anglesey Coast AONB (Figure 8, Annex 10.5).
- 473 The SCA is characterised by relatively low-lying coastal landform, extensive intertidal sand and mudflats, and a shoreline of cobbles, boulders and muddy gravels. The shallow Conwy Bay has extensive intertidal habitats while Traeth Lafan comprises a wide expanse of sediment, becoming increasingly sandy towards the low-tide mark. The north-east contains more gravel and sand with finer sediment occurring to the south, away from the main channel. Where the channel is narrowest, in the south-western reaches, the tidal currents are strongest. Land uses are very varied, including several settlements, harbours, farmland, woodland and parkland. Sea uses include recreation and commercial mussel fishing.
- A long history of settlement is evident at the town of Beaumaris, with its harbour, pier, old customs house and Beaumaris Castle; the town of Llanfairfechan; and scattered farms and hamlets. Historic importance for defence, religion, settlement and transport are evident at sites including Penmon Priory and the site of the former causeway across Traeth Lafan, between Abergwyngregyn and the Beaumaris ferry. Noise, movement and lighting associated with the activity of people, boats and traffic is widespread. Their influence reduces perceptions of remoteness and tranquillity, balanced by the wilder element of the large-scale mountain backdrop.



- Views are dominated by the ever-changing open expanse of Conwy Bay, as it responds to weather, light and tide. The expanse of Traeth Lafan dominates the foreground of seaward views that are framed by Puffin Island and the more distant headland of Great Orme to the west and east, respectively. The OWF at GyM is visible beyond and extends across two thirds of the open sea horizon from Beaumaris at a range of 33.5 km. However, the relative scale and distance of the WTGs means that they have a low characterising influence when they are visible in very good to excellent weather conditions.
- The surrounding landform encloses views across the bay with those to the south being more distinct. The Snowdonia mountains provide a dramatic backdrop to views from Anglesey and Conwy Bay. The profiles and seaward slopes of Snowdonia's mountains are integral to the setting of this SCA, contributing to its sense of scale and grandeur.
- 477 **Value of the SCA: Medium-high**. The seascape itself is not covered by any local or national landscape designations. The Anglesey coast is within the Anglesey AONB (Figure 8, Annex 10.5).
- The SCA forms part of the setting of the SNP which lies to the south (Figure 8, Annex 10.5).
- 479 **Susceptibility to change: Medium-high.** The SCA is moderately expansive within the bay with its scale increasing to the north-east where it has a greater association with the wider sea. It is highly characterised by the containing small-scale landscape features to the north (Puffin Island and Great Orme) and more distant mountainous landforms to the south along with built development along parts of the coastal slopes.
- There would be no change to the characterising components of this SCA and the AyM array area seems to occur beyond this SCA and the Great Orme, located within the open seascape of SCA 28 and SCA F at a range of approximately 17 km from the northern edge of the SCA at its closest point.



- Susceptibility to the AyM offshore elements is moderated by distance and the fact that the seascape is influenced by some coastal development including infrastructure and settlement. This is with the exception of much of the coastal strip to the north-east of Beaumaris. The mountains of Snowdonia are also strongly influential to the south. Visibility of OWF development has some existing influence from parts of the SCA and this characteristic would become more defined by the proposals.
- 482 **Sensitivity Medium-high -** based on the combination of the assessed medium-high value and medium-high susceptibility of the seascape to the proposed development

- There will be no physical change to the character of this SCA, which has innate, strongly defined elements. The only changes are as a result of visibility of the AyM Offshore Elements in views from the SCA as part of its wider setting. The AyM offshore elements will extend and intensify the existing OWF character influence through the introduction of views of up to 34 tall, widely spaced, moving WTGs and two OSPs from parts of this SCA during their construction, operation and decommissioning along with additional vessels during construction/ decommissioning and during operational maintenance.
- Theoretical visibility of the AyM WTGs (MDS A) from within the SCA is illustrated on Figure 15 (Annex 10.5). It is shown to be widespread across the SCA, with the exception of some small areas to the north-west and east of the SCA where intervening coastal landform provides screening. Actual visibility within the coastal areas is likely to be limited to a degree by woodland and built development. This is with the exception of locations close to the shore.



- The range of this theoretical visibility is between 17 km and 30 km. This will add to the existing OWF influence on the seascape character by extending the influence of the GyM OWF further west. The scale of the AyM WTGs when compared with the WTGs of the operational OWF is relatively large. The horizontal and vertical fields of view that they occupy, within views from the coast that are sometimes contained by landform, will mean that they are substantially more prominent in views from the coastal parts of the SCA as is demonstrated by Viewpoints 8, 11 and 28 (Annex 10.6). This in turn will increase their characterising influence, particularly when viewed in combination with the other OWFs.
- The views from the southern coastal edge to the south-west of Viewpoint 11 Llanfairfechan (Annex 10.6), tend to be focussed across the mud flats of Traeth Lafan towards the Anglesey coast and becoming progressively more focussed on the views north out to sea from the more easterly sections. Seascape character around Llanfairfechan itself is more markedly characterised by the development context of the settlement and infrastructure close to the coast.
- 487 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise Medium to Medium-Low
- 488 The Medium magnitude of change relates to the coastal, north-easterly exposed areas to the north of Beaumaris and south of Viewpoint 28 Trwyn y Penrhyn parking layby, extending inland by 0.3-0.5 km and the section of the immediate coast between a point north of Aber Farm to west of Llanfairfachan. Elsewhere in this SCA the magnitude of change in character will be lower or there will be no change.

489 **Construction/ Decommissioning:** *Moderate effect (Significant)*, adverse, short-term temporary in the coastal, north-easterly exposed areas to the north of Beaumaris and south of Viewpoint 28 – Trwyn y Penrhyn parking layby, extending inland by 0.3-0.5 km and the immediate coastal area between a point north of Aber Farm to the west of Llanfairfachan.



- 490 **Minor to Moderate effect (Non-significant)**, adverse, short-term temporary during early stages of construction and latter stages of decommissioning and elsewhere within the SCA.
- Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible in the coastal, north-easterly exposed areas to the north of Beaumaris, and south of Viewpoint 28 Trwyn y Penrhyn parking layby, extending inland by 0.3-0.5 km and the immediate coastal area between a point north of Aber Farm to the west of Llanfairfachan.
- 492 **Moderate effect (Non-significant)**, adverse, long term, reversible elsewhere within the SCA.

#### SCA 5 – Penmon

- This SCA (Figure 5, Annex 10.5) includes Puffin Island and the north-facing coast between it and Red Wharf Bay in the east of Anglesey. Traeth Lafan SCA3 bounds the SCA to the south, and Red Wharf to Moelfre SCA 6 adjoins to the west. North-east of Anglesey SCA 28, is to the north-east. The SCA lies within Anglesey Coast AONB (Figure 8, Annex 10.5).
- This SCA is characterised by its predominantly north-facing coastline and its relatively unsettled, rough coastal landform. The coast comprises low cliffs at sea level and a succession of bays containing pebbly beaches. The landform has a relatively straight profile sloping gently upwards inland, becoming more of a plateau in the west. Grassland with rocky outcrops; coastal heath, some managed by the National Trust; and rhos pasture covers the land. Land uses include rough pasture and fish farming, with extensive former limestone quarries, and the remains of jetties strongly influencing the eastern end of the SCA. Potting and recreational angling occur along the shoreline.



- This is one of the most rural sections of the north-facing Welsh coastline due to a general lack of roads and settlement. Relative lack of human influence creates a strong sense of wildness along the coast, inaccessibility and remoteness, enhanced by abandoned quarries. Along the coast it is further emphasised by the presence of Trwyn Du lighthouse and the isolated keepers' cottages. Development within the setting of the SCA reduces the sense of remoteness and tranquillity, particularly when lighting around Conwy Bay is visible.
- 496 Settlement and development is limited to scattered farms, coastguard cottages at Penmon Point, quarry buildings and Bwrdd Arthur Iron Age hillfort. Offshore, Penmon lighthouse, monastic remains on Puffin Island and former quarry quays are historic elements.
- Looking southwards over Conwy Bay, the landscape setting of inland farmland allows glimpses of Snowdonia's mountains, especially from higher land. The seascape setting is dominated by the low, rounded form of Puffin Island and Great Orme. Vessels waiting for the Liverpool pilot are visible in the seascape as is the offshore wind farm at GyM. Panoramic, open views over the sea contrast with the more enclosed character of the landscape derived from landform, vegetation and field boundaries. Inland, the relatively simple landscape has little movement or traffic.
- This SCA is very similar in extent to LCA 10. As a result, the assessment of the effects on what is predominantly a landscape derived SCA are not repeated as they are the same.
- 499 **Sensitivity to change: Medium-high** based on the combination of the assessed high value and medium susceptibility of the seascape to the proposed development within these areas.

- 500 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise Medium to No change.
- 501 The Medium magnitude of change relates to the coastal, northerly exposed areas of the LCA, extending inland by a maximum of 0.5 to 0.75 km and excluding the settled inland and former quarry area to the east.



- 502 Construction/ Decommissioning: Minor effect (Non-significant) adverse, short-term temporary during early stages of construction and latter stages of decommissioning, otherwise Moderate effect (Significant), Significant, adverse, short-term temporary in the coastal, northerly exposed areas of the LCA, extending inland by a maximum of 0.5 to 0.75 km.
- Moderate-Minor (Non-significant), adverse, short-term temporary to the west of Bwrdd Arthur and in the settled inland and former quarry area to the east.
- Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible in the coastal, northerly exposed areas of the LCA, extending inland to a maximum of 0.5 to 0.75 km.
- 505 **Moderate-Minor effect (Non-significant)**, adverse, long term, reversible to the west of Bwrdd Arthur and in the settled inland and former quarry area to the east.

## SCA 6 - Red Wharf Bay to Moelfre

# Baseline description and sensitivity

This SCA on the east coast of Anglesey is orientated north-east and centres on Red Wharf Bay (Figure 5, Annex 10.5). The A5108 road to Moelfre forms its northern boundary with SCA 7 Dulas Bay. SCA 5 Penmon lies to the east, and SCA 28: North-east of Anglesey lies to seaward. It includes the villages of Benllech, Red Wharf Bay and Moelfre. The landward parts of the SCA lie largely within Anglesey Coast AONB (Figure 8, Annex 10.5).



- Landform comprises wide, sandy bays backed by low cliffs and steep hills, separated by sloping headlands orientated north-east. The River Nodwydd flows into the sea at Red Wharf Bay, which dominates this area due to its substantial scale. Its extensive sandy beach and intertidal area has limited dune formation behind and is separated from smaller beaches at Benllech and Traeth Bychan by sloping headlands. Steep pine woodland and farmland provide the landward setting beyond the sand dunes. Predominantly farmland and rhos pasture, with forestry, settlement and tourism also notable land uses. The small islet of Ynys Moelfre is separated from the coast at Moelfre headland by Y Swnt.
- The inland landscape setting comprises gently undulating farmland, with woodland, farmland and steep hills framing views of the bay. Caravan parks are numerous and prominent in landward views with their colour and pattern contrasting with those of farmland and woodland. Small-scale fields contrast with expansive sandy beaches.
- The SCA is relatively well-settled, with villages including Llandonna, and the historic fishing settlements of Red Wharf Bay and Moelfre, at the northern headland. The area is popular with holidaymakers, with numerous caravan parks, campsites and slipways providing access to the sea for recreational and fishing boats.
- 510 Larger beaches in the SCA feel exposed and expansive with smaller ones feeling more enclosed. The diverse SCA is a busy and colourful tourist area in summer and quieter, more muted to nearly desolate in the winter. Settlement, roads and people significantly reduce senses of remoteness and tranquillity.
- The offshore environment is relatively low-energy with intertidal sands and stretches of intertidal rocks, sandy sediments and saltmarsh. During tidal ebb and north-west winds, the sea breaks heavily on banks/ shoals at Dinmoor Bank and Ten Feet Bank. The western part of Red Wharf Bay has an extensive intertidal area, with quick changes in tides. Coastal and sea uses include bait digging, potting and trawling.



- Seaward views are framed by headlands, increasing the sense of enclosure, particularly on smaller beaches. This embayment provides the seascape setting, with large vessels out at sea waiting for the Liverpool Pilot. Strong seasonal variation derives from recreational uses. Distant offshore wind farms can be seen in views to the east from high land. The north-east aspect is unusual for Wales, with Great Orme prominent in many land-to-sea views and sheltering the coast from prevailing southwesterly winds.
- 513 Cross reference to LCA 9 Red Wharfe Bay (from Paragraph 413).
- Value of the seascape character: Ranges from High to Medium. The coastal areas (except Benllech) and inland to the south of Red Wharfe Bay are within the Anglesey AONB. This includes the tidal, beach areas. Otherwise, the sea areas of this SCA are not covered by a landscape planning designation.
- Susceptibility to change: Medium-low to medium. The SCA is diverse with numerous characteristics indicating human intervention over a long duration, including settlement and extensive caravan parks. The scale of the landform features is moderate and provides some containment to the SCA. The landcover provides some low-level complexity and visual screening.
- The coastal parts of the SCA and areas around the bays are exposed to the large-scale seascape, which provides a key component of their character. The coastal areas have a strong association with the seascape to the north-east where the AyM array area is located as a result of the embayment and orientation of the coastlines. The section of the coast and inland from Red Wharf Bay along with other inland parts of the LCA are classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b (Annex 10.5) indicating their higher tranquillity characteristics.
- The areas of sea are locally contained within the bays and take their characteristics from the enclosing landform/ coastal edge land uses and are less influenced by the characteristics of the wider seascape due to embayment. Beyond the bays the wider seascape is more apparent, large in scale and more influenced by operational OWF and large vessels, reducing susceptibility to change within these areas.



- Susceptibility is moderated by the distance to the AyM array area of between 16 and 29 km and the strength of the characteristics that define this SCA.
- Sensitivity to change Medium inland and in areas of open seascape.

  Medium-high along the immediate coastal areas and within the contained areas of sea located between Moelfre headland and level with Bwrdd Arthur to the east where there is a strong association with the wider seascape to the north-east. This is based on the combination of the assessed value and susceptibility of the seascape to the proposed development within these areas.

- 520 Figure 15 (Annex 10.5) illustrates the blade tip ZTV within this SCA. This shows theoretical visibility of parts of 29-34 turbines across parts of the coastal land area and the majority of the sea area. The extreme southern area of the SCA is shown to have no/limited visibility. Actual visibility from lower lying areas of the landscape where it is set back from the coast is likely to be markedly limited by intervening vegetation and by built form in the north-west in particular.
- Viewpoints 4, 5 and 16 (Annex 10.6) have been selected to illustrate open, clear views towards the AyM OWF and illustrate maximum visibility of the WTGs. The assessments for these viewpoints have assessed the magnitude of change as Medium-low at these locations. The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the SCA is generally likely to be lower than is identified for a viewpoint.
- Seascape character changes in areas of sea within the area confined by the bay landforms are likely to have similar levels of magnitude of change to areas that have focussed, clear views from the coast. Seascape character changes within the more open seascape are likely to be less extreme due to the wider seascape influences.
- Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise Medium-low to No change within some limited areas in the south of the SCA.



- Construction/ Decommissioning: Minor effect (Non-significant) during early stages of construction and latter stages of decommissioning, otherwise Moderate effect (Significant), adverse, short-term, temporary overall within the SCA.
- Operation (MDS A): Moderate effect (**Significant**), adverse, long term, overall within the SCA.

#### SCA 7 - Dulas Bay

- 526 Located on the eastern coast of Anglesey the SCA comprises Dulas Bay and the surrounding area (Figure 5, Annex 10.5). It extends south from Freshwater Bay to Moelfre and includes Dulas village and estate, and the Traeth Dulas estuary. Red Wharf Bay to Moelfre SCA 6 adjoins to the south-east with Amlwch and Cemaes SCA 8 to the north and north-west. North-east of Anglesey SCA 28 lies to seaward. The landward parts of the SCA lie mostly within the Anglesey Coast AONB (Figure 8, Annex 10.5).
- The rocky coast of this SCA, with beaches at Dulas Bay and Lligwy Bay, is bounded by prominent headlands to the north and south. The small, low islet of Ynys Dulas lies midway between these, off the relatively shallow Dulas Bay, with its daymark tower providing a focal point within the seascape where it is seen at close range. Rocky headlands with wave-cut platforms, cliff erosion, caves and small sandy beaches characterise the coastline. Estuarine processes occur at Treath Dulas where the River Goch flows into sea. The marine environment is relatively low energy in some areas, leading to beach and dune formation at Traeth Lligwy, Dulas Bay and Morfa Dulas.
- 528 The landform is relatively simple, smooth and rolling, with ridges separating deeper valleys including the Traeth Dulas Estuary. The northern part of the SCA has a strong designed quality deriving from the Dulas estate. The southern part contains historic landscape features from prehistoric times onwards, and several modern caravan parks. The central Traeth Dulas estuary, is tranquil and relatively remote with a variety of habitats, constantly changing according to the tide.



- Sea uses include potting and trawling fishing methods. The seascape is populated by large vessels waiting out at sea for the Liverpool Pilot. Visible to the east at a distance greater than the Great Orme the OWF of GyM and Rhyl Flats are visible as part of the wider seascape setting.
- Improved farmland is predominant, with woodland and caravan parks in the south of the SCA. Deciduous woodland and rocky shores are complemented by intertidal areas of reed beds, saltmarshes, mud and sand at Traeth Dulas. The Dulas Estate's patchwork of improved fields and estate buildings dominate the landscape. Settlement and development is largely limited to it and Dulas village. The medium-scale landscape has a strong sense of openness due to the open farmland, wide estuary landform and long views framed by bays of the relatively simple landscape. The northward landscape setting comprises hills to the east of Penysarn, with a backdrop of interior farmland. Caravan parks are prominent against the green backdrop in the south, while TV transmitter masts are prominent on the northern horizon. The circular spire of Dulas Church is also a distinctive landmark.
- 531 Estate management and tourist development reduce the general sense of remoteness and wildness.
- 532 Cross reference to LCA 8 Dulas Bay Hinterland (from paragraph 398).
- Value of the seascape character: Ranges from High to Medium-high. The majority of the landward part of the SCA is within the Anglesey AONB. The sea areas of this SCA are not covered by a landscape planning designation.
- Susceptibility to change: Medium to Medium-low. The SCA is diverse with numerous characteristics indicating human intervention over a long duration, including scattered settlement, designed landscapes at Dulas and transmission masts in the north. The scale of the landform features is moderate and provides some containment to the LCA. The landcover provides some low-level complexity and visual screening.



- 535 The coastal parts of the LCA are exposed to the large-scale seascape with the coast having an association with the seascape to the north-east where the AyM array area is located. This section of the coast, around Dulas Bay along with other inland parts of the LCA are classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b (Annex 10.5) indicating their greater tranquillity characteristics.
- 536 The areas of sea that are locally contained within the bays and the local influence of the Islet of Ynas Dulas take some of their characteristics from the enclosing landform/ coastal edge land uses and are less influenced by the characteristics of the wider seascape due to embayment. Beyond these bays the wider seascape is more apparent, large in scale and more influenced by operational OWF and large vessels, reducing susceptibility to change within these areas.
- Susceptibility is moderated by the distance to the AyM array area ranging between 24-31 km and the strength of the characteristics that define this SCA.
- Sensitivity to change Medium-high along the immediate coastal edge and within the sea area to the west of and lying between the Islet of Ynas Dulas and Moelfre headland where there is a direct association with the seascape to the north and north-east and Medium elsewhere. This is based on the combination of the assessed value and susceptibility of the seascape to the proposed development within these areas.



- 539 Figure 16a (Annex 10.5) illustrates the blade tip ZTV within this LCA This shows theoretical visibility of parts of 29-34 turbines across the coastal area and extending inland along three 'fingers' with theoretical visibility determined by the screening effects of the upland landforms. Western and southern areas of the LCA are should not have no/very limited visibility. Actual visibility from lower lying areas of the landscape where it is set back from the coast is likely to be markedly limited by intervening vegetation and Viewpoints 14 and 42 (Annex 10.6) have been selected to illustrate open, clear views towards the AyM OWF and illustrate maximum visibility of the WTGs. The assessments for viewpoints 14 and 42 have assessed the magnitude of change as Medium-low and Low respectively at these locations. This indicates the lower levels of development characteristics and higher relative wildness/tranquillity within this part of the LCA where Viewpoint 14 is located. The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCA is generally likely to be lower than is identified for a viewpoint.
- Seascape character changes in areas of sea within the area confined by the bay landforms/islands are likely to have similar levels of magnitude of change to areas that have focussed, clear views from the coast. Seascape character changes within the more open seascape are likely to be less extreme due to the wider seascape influences.
- 541 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise No change to Mediumlow.

# Significance of effect

Construction, Decommissioning: Minor effect (Non-significant) during early stages of construction and latter stages of decommissioning, otherwise Moderate (Significant) adverse, short-term temporary along the immediate coastal edge and within the sea area to the west of and lying between the Islet of Ynas Dulas and Moelfre headland where there is a direct association with the seascape to the north and north-east.



- 543 **Minor effect (Non-significant)**, adverse, short-term temporary elsewhere within this SCA.
- Operation (MDS A): Moderate (Significant), adverse, long term, reversible along the immediate coastal edge and within the sea area to the west of and lying between the Islet of Ynas Dulas and Moelfre headland where there is a direct association with the seascape to the north and north-east.
- 545 Minor effect (Non-significant), adverse, long term, reversible elsewhere.

# Effects on the landscape/ seascape character, views and Special Qualities of Isle of Anglesey AONB

- The landscape character assessment has identified the areas within the IoA AONB where significant effects on landscape character may arise as a result of visibility of AyM in the seascape at a range of between 17 km and approximately 29 km as follows:
  - ▲ IoA LCA 8: Dulas Bay Hinterland Moderate effect (Significant), adverse, long term, reversible along the coastal edge extending to a maximum of approximately 1 km where there may be a direct association with the seascape to the north-east.
  - loa LCA 9: Red Wharf Bay Moderate effect (Significant), adverse, long term, reversible along the coastal edge extending to a maximum of approximately 1 km between Moelfre headland and Benllech and south of Benllech and round Red Wharfe Bay to a point level with Ty-mawr north of Pentraeth Forest where there may be a direct association with the seascape to the north-east. IoA LCA 10: Penmon and Puffin Island Moderate effect (Significant), adverse, long term, reversible in the coastal, northerly exposed areas of the LCA, extending inland to a maximum of 0.5 to 0.75 km.
  - ▲ IoA LCA 11: Eastern Menai Strait Moderate-Major effect (Significant), adverse, long term, reversible in the coastal, northeasterly exposed areas to the north of Beaumaris, and south of Viewpoint 28 Trwyn y Penrhyn parking layby, extending inland by 0.3-0.5 km.
- 547 The LCAs are shown on Figure 16 (Annex 10.5).

SCA 3 – Traeth Lafan

548 Parts of these LCAs coincide with landward parts of the following SCAs:



- ▲ SCA 5 Penmon
- ▲ SCA 6 Red Wharfe Bay to Moelfre
- ▲ SCA 7 Dulas Bay
- However, the identified significant effects cover the same geographical areas of the IoA AONB and should not be double counted.
- Within the IoA AONB significant visual effects have been identified in relation to the following representative viewpoints:
  - Viewpoint 4: Moelfre Headland at sculpture Moderate effect (Significant)
  - Viewpoint 5: Red Wharf Bay Moderate effect (Significant)
  - Viewpoint 6: Bwrdd Arthur north of trig point Moderate effect (Significant)
  - Viewpoint 7: Penmon Point north-east of parking Major-Moderate effect (Significant)
  - Viewpoint 8: Beaumaris Wales Coast Path Major-Moderate effect (Significant)
  - Viewpoint 14: Wales Coast Path near Penrhyn (Traeth yr Ora) -Moderate effect (Significant)
  - Viewpoint 28: Trwyn y Penrhyn parking layby Moderate effect (Significant)
- Within the IoA AONB significant visual effects have been identified in relation to the following visual receptors:
  - Residential areas of Moelfre Moderate effect (**Significant**) adverse, short-term temporary on views from a small number of properties along the coastal edge where they have open, undeveloped views towards the AyM array area.
  - WCP Section C Dulas Bay Moderate effect (Significant)
  - WCP Section D Moelfre Moderate effect (Significant)
  - WCP Section E Red Wharf Bay/ Penmon Moderate (**Significant**), west of Bwrydd Arthur and Major-Moderate effect (**Significant**) to the east of Bwrydd Arthur
  - WCP Section F Penmon Point Major-Moderate effect (Significant)
- The Special Qualities of the Isle of Anglesey AONB (Figure 18, Annex 10.5) that have been assessed in the simple assessment in Annex 10.3 as having the potential to be significantly affected and therefore requiring detailed assessment are as listed below and assessed in Table 7:



- Expansive views;
- Peace and tranquillity; and
- Islands around Anglesey.



Table 7: Effects on IoA AONB Special Qualities During Construction/ Decommissioning and Operation.

SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
Expansive views  Key reference - The Isle of Anglesey Area of Outstanding Natural Beauty Management Plan Review 2015 – 2020	P18 of AONB Management Plan - Seascapes are a highly valued part of the Welsh scenery, they can also be some of our last 'wild' landscape areas and support a wealth of natural heritage. Seascapes can loosely be defined as "An area of sea, coastline and land as perceived by people, whose character results from the actions and interactions of land and sea, by natural and/ or human factors" (CCW 2010).  Appendix 1, Table 1: Landscape/ Seascape Resource - Special Qualities of the AONB (p5)  Expansive views are to be found throughout the AONB; are in good condition; and such views provide a significant contrast and backdrop to the landscape of Anglesey.	Construction, operation and decommissioning: Negligible during early stages of construction and latter stages of decommissioning, otherwise Medium-low from south of Point Lynas to west of Bwrydd Arthur and Medium east of Bwrydd Arthur to Penmon Point and north of Beaumaris in views from immediate coastal areas and vantage points set back from the coast.  Elsewhere low or negligible/ no change.  The AyM OWF is a development for energy production, which is one of the factors identified as affecting the condition of the special quality.	Construction, Decommissioning: Minor effect (Nonsignificant) during the early stages of the construction and latter stages of decommissioning. Otherwise, as a result of the introduction of further energy production development in the form of the AyM OWF there would be some Moderate or Major Moderate effects (significant), adverse, short-term, temporary effects on



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	<ul> <li>P4, 1.1.3 - The influence on the character of the AONB by 'expansive views' is significant. By virtue of their height, scale and sheer size, the mountains of Snowdonia dominate the majority of the AONB's landscape.</li> <li>Add to this the ever-changing appearance of the sea then the perception of the landscape of the AONB is one of exposure, openness, wilderness and a feeling of isolation.</li> <li>The nature of the expansive views can be summarised as follows:</li> <li>Views across the Irish Sea;</li> <li>Views across those areas of Anglesey not included in the AONB designation;</li> <li>Local views, for example across the Menai Strait;</li> <li>Distant views, such as to the Great Orme, Snowdonia, Llyn Peninsula</li> </ul>	The AyM OWF would be seen across parts of expansive views across the seascape of the Irish Sea from locations within the IoC AONB.  Figure 16.1a (Annex 10.5) illustrates the theoretical visibility of AyM WTG (MDS A) blade tips from within the IoA AONB.  Although the ZTV shows some theoretical visibility from westerly parts of the AONB this is over extensive areas of landscape and at a considerable distance. Figure 16.2a (Annex 10.5) illustrates the theoretical visibility of AyM WTG (MDS A) hubs and this indicates that very few areas beyond the eastern coast and some limited areas of higher ground inland would have visibility of anything	the 'Expansive views' special quality from some limited coastal areas and higher vantage points within the AONB between Point Lynas in the north and Beaumaris in the south.  These effects are represented by views from Viewpoint (VP) 7: Penmon Point towards Puffin Island and Great Orme; VP 4: Moelfre Headland, VP 6: Bwrdd Arthur, VP 14: Wales Coast Path near Penrhyn (Traeth yr Ora) from VP 16: Benllech Bay,



BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
and the Isle of Man, often described as "borrowed landscapes".  The factors noted that are affecting the condition of this special quality are:  Changes in land management practices;  Inappropriate development; and  Energy production and transmission.  Value of the Special Quality: High  The Special Qualities are an identified and important feature of the IoA AONB.  Susceptibility to change: High  Whilst the AONB Management Plan documentation uses definitive terminology such as 'wild' and 'wilderness' the Applicant does not	more than WTG blades and these are likely to be screened by intervening vegetation from the majority of inland areas.  In reality it is only the eastern areas of the AONB that could have material visibility of the AyM WTGs (MDS A) as part of expansive views and not 'those areas of Anglesey not included in the AONB designation'.  The magnitude of change to expansive views has been considered in relation to representative viewpoints, the Wales Coast Path and settlements along the coast as well as from numerous high points created by underlying geology.	VP 5 Red Wharfe Bay, VP 28: Trwyn y Penrhyn parking to Penmon Point and Great Orme, VP 8: Beaumaris to Puffin Island and the Great Orme; and views from sections C: Dulas Bay, D: Moelfre, E: Red Wharfe Bay/ Penmon, and F: Penmon Point of the Wales Coast Path. These would specifically relate to views over the Irish Sea and in some instances will affect local views to other landscape features



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	consider that areas within the IoA should be considered to be perceived as wild or as wilderness in their purest sense. It is, however, agreed that there is a sense of relative wildness and relative wilderness. This is due to exposure and lack of intrusion by development in some areas, however the relative ease of accessibility and evidence of some human intervention through land use practices are evident across Anglesey.  Preliminary work to map wildness in Wales undertaken by the University of Leeds Wildland Research Institute (2014) entitled Wildness Study In Wales, uses GIS and modelling of wildness based on perception studies carried out in Scotland. Whilst it was advocated that further, more specific Welsh research should be undertaken	This has found that some local and distant viewpoints and visual receptors would have magnitudes of change in their views of Medium-low or Medium. These are views from vantage points at Penmon Point towards Puffin Island and Great Orme; Moelfre Headland, Bwrdd Arthur, from Benlech Bay, across Red Wharfe Bay, Penmon Point to Puffin Island, Trwyn y Penrhyn parking to Penmon Point and Great Orme, Beaumaris to Puffin Island and the Great Orme; and sections C: Dulas, D: Moelfre, E: Red Wharfe Bay/ Penmon, and F: Penmon Point of the Wales Coast Path.	such as the Great Orme and Puffin Island.  From some of these locations there may in turn be effects on the perceptions of the sense of openness as a result of the introduction of the AyM OWF to views over the seascape.  Moderate to Major- Moderate (Significant) effects on relative wilderness and the feeling of isolation (from human intervention) would apply in views from the sections of



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	to inform wildness mapping for Wales it does provide some basis for an understanding of the relative wildness of Anglesey compared with other parts of Wales (and Scotland) based on a number of factors that are generally agreed to contribute to the presence (or otherwise) of wildness.  This shows that in general Anglesey has average or lower than average values of relative wildness except for along the extreme outer coastal edges of limited sections of the coast and on the mudflats at Red Wharfe Bay.  Parts of the AONB are indicated in the LANDMAP dataset as being high or outstanding in terms of their visual and sensory evaluation (Figure 9, Annex 10.5). These areas coincide with the north coast of loA, Dulas Bay, Red	Expansive local views across the Menai Strait would not be affected by the AyM OWF.  Views (in exceptionally excellent weather) towards the high peaks of the Lake District (e.g. Scafell Pike/ Helvellyn at a range of 137 km+) would generally not be affected. This is with the exception of locations around Penmon Point from where there is some potential for the edge of the AyM array area to be seen to the fore of the distant mountain range. Further north on the coast of Anglesey such interaction would not arise.  There would be no change in distant expansive views from the loA AONB to the mountains of Snowdonia, which are said to	the coast between Moelfre and Point Llynas and along the coast between Penmon Point and Bwrdd Arthur. There would be no change to the perception of exposure as a result of the introduction of AyM OWF to views. Elsewhere the effects would be non- significant, adverse, short-term, temporary. Views across the Menai Strait or towards more distant borrowed



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Wharf Bay, the coastline east of there to Penmon Point and Beaumaris.  Sensitivity: High - based on the combination of the assessed high value and high susceptibility of the special quality to the proposed development.	dominate the majority of the AONB's landscape.  There would be no change to the distant expansive views of the Llyn Peninsula or the Isle of Man.	landscapes of Snowdonia, the Isle of Man, the Llyn Peninsula and the mountains of the Lake District would not generally be affected.
			Operation:
			The effects during operation would be similar to those identified for construction and decommissioning although adverse, long term, reversible.
Peace and tranquillity.	P15 - Table 6: Ecosystem Services delivered on Anglesey	Construction, operation and decommissioning: Negligible	Moderate to Moderate-Major
Key reference - The Isle of	Relative tranquillity is recognised as a special quality of the AONB. It	during early stages of	effect (Significant), adverse, long term,



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
Anglesey Area of Outstanding Natural Beauty Management Plan Review 2015 – 2020	provides a resource and a benefit that is greatly valued. Tranquillity is also important at night and the dark skies of Anglesey are increasingly recognised as being of high importance.  Appendix 1, Table 1 – Landscape/ Seascape Resource - Special Qualities of the AONB.  Occurs across the majority of the AONB to a varying degree (poor to good).  The landscape provides a rewarding experience for both residents and tourists  The landscape is an economic asset.  P4, 1.1.4 - The perception of the AONB's overall sense of peace and tranquillity is reaffirmed by the Tranquillity Areas Wales Report commissioned by the CCW in 1997.	construction and latter stages of decommissioning, otherwise  Medium-low or medium from limited locations within the AONB.  Assessment of the night time effects on the dark skies is included in Section 10.12.  The AyM OWF is a development for energy production, which is one of the factors identified as affecting the condition of the special quality.  Tranquillity Classification mapping of 2009 has been used in the assessment to inform the assessment of the effects on the Representative viewpoints, the Wales Coast Path and LCAs and has been a component considered in both susceptibility	reversible effects on the visual aspects of the Special Quality of peace and tranquillity would arise in limited locations of the AONB identified at and around:  • Viewpoint 14: Wales Coast Path near Pennrhyn (Traeth yr Ora);  • Viewpoint 28: Trwyn y Penrhyn parking layby;  • The northerly section of



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
SI ESIAE GUALITI	The purpose of the report was to identify the areas of the Welsh countryside that were relatively undisturbed by noise and visual intrusion and therefore considered unspoilt by urban influences.  The categories of possible intrusions include:  Road Traffic;  Settlements;  Electrical Infrastructure;  Industrial Sites;  Aircraft;  Wind Farms;  Race Tracks  In addition to those identified in the	to change and magnitude of change.  The AyM OWF would be seen from limited parts of the AONB landscape that are considered to be 'Undisturbed'.  Figure 16.1a (Annex 10.5) illustrates the theoretical visibility of AyM WTG (MDS A) blade tips from within the IoA AONB.  Although the ZTV shows some theoretical visibility from westerly parts of the AONB this is over extensive areas of landscape and at a considerable distance. Figure 16.2a (Annex 10.5) illustrates the theoretical visibility of AyM WTG	
	1997 report consideration should also be given to offshore developments and the noise associated with jet skis.	(MDS A) hubs and this indicates that very few areas beyond the eastern coast and some limited areas of higher ground inland	tranquillity are assessed as <b>minor</b>



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	The report concludes that the AONB is a relatively undisturbed and tranquil part of Anglesey, however there is periodic yet significant noise and visual intrusion from aircraft, settlements, electrical infrastructure and recreational activities (CCW 1997).  The factors noted that are affecting the condition of this special quality are:  Changes in land management practices;  Changes in legislation;  Inappropriate development;  Energy production;  Inappropriate recreation;	would have visibility of anything more than WTG blades and these are likely to be screened by intervening vegetation from the majority of inland areas.  In reality it is only the eastern areas of the AONB that could have material visibility of the AyM WTGs (MDS A) as part of their wider setting.  Tranquillity Classification mapping of 2009 has been used in the assessment to inform the assessment of the effects on the Representative viewpoints, the Wales Coast Path and LCAs and has been a component considered in both susceptibility to change and magnitude of	effect (Non-significant).
	<ul><li>Transport; and</li><li>Race track developments.</li></ul>	change.	



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Further work on a tranquil area map for Wales was carried out by Land Use Consultants on behalf of CCW in 2009 and is to be used as a basis for monitoring change and to inform policy.  A comparison undertaken by NRW showed that tranquil areas decreased by 6% or 1,500 km2 of tranquil areas in Wales (10% (81 km2) in North East Wales) over an 11-year period spanning 1998 to 2009.	Magnitudes of change that are Medium-low or Medium have been assessed at the following locations where the viewpoint or visual receptor is located within an area identified as 'Undisturbed'.  Viewpoint 7: Penmon Point north-east of parking;  Viewpoint 14: Wales Coast Path near	
	Value of the Special Quality: High	Pennrhyn (Traeth yr Ora);	
	The Special Qualities are an identified and important feature of the IoA AONB.	<ul> <li>Viewpoint 28: Trwyn y Penrhyn parking layby;</li> <li>The northerly section of</li> </ul>	
	Susceptibility to change: Medium or high (where classified as Undisturbed)	WCP Section C: Dulas Bay;	
	The 2009 mapping is shown for the study area in Figure 10b.	<ul> <li>the northerly section of WCP Section E Red</li> </ul>	



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Neither study formally defined the term tranquillity, however, the Welsh Government has more recently defined the term and Natural Resources Wales adopted this definition for State of Natural Resources Report (SoNaRR):  Assessment of the Sustainable Management of Natural Resources.  Technical Report (2016).	<ul> <li>Wharfe Bay/ Penmon; and</li> <li>WCP Section F Penmon Point in part.</li> <li>(Refer to Annex 10.5 and Annex 10.6).</li> <li>There is <b>no change</b> to the audible aspects of tranquillity as a result of AyM OWF.</li> </ul>	
	'Tranquillity is an untroubled state, which is peaceful, calm and free from unwanted disturbances. This can refer to a state of mind or a particular environment. Tranquillity can be measured in terms of the absence of unwanted intrusions, or by a balancing of positive and negative factors. These include the presence of nature, feeling safe, visually pleasing surroundings and a relaxing atmosphere.'	The currently, largely undisturbed, seascape views form an important component of their setting and perceived character. However, there are components of the wide views from these locations that reduce the sense of relative peace and tranquillity to some degree in the form of largescale shipping offshore, built development such as	



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Sensitivity: High for areas classified as 'Undisturbed'. Medium to high elsewhere. This is based on the combination of the assessed value and susceptibility of the special quality to the proposed development within these areas.	lighthouses/houses, roads and car parking areas, historic mining development and power lines.	
Islands around Anglesey	P16 – 4.3 - The landscape of the AONB is a diverse mixture of many features, which are both distinctive and appealing. As the Anglesey AONB is predominantly a coastal designation, features such as cliffs, rocky shores, islands, sandy beaches and sand dunes tend to dominate the landscape. A significant proportion of the AONB is farmland, whilst there are also significant areas of heathland, semi natural woodland, intertidal wetlands and lakes.	Construction, operation and decommissioning: Negligible during early stages of construction and latter stages of decommissioning, otherwise  Medium-low or medium from limited locations within the eastern area of the AONB.  None of the islands will be physically altered by the AyM OWF.  Changes to the prominence of the islands and to their contribution as an important	Major to Major- Moderate (Significant) adverse effects on the visual interaction between the landscape/ seascape where the AyM OWF would form part of the backdrop to the islands of Ynys Moelfre, Ynys Dulas and Puffin Island in views from limited locations along the



BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
Appendix 1, Table 1: Landscape/ Seascape Resource - Special Qualities of the AONB	physical link between the landscape and seascape of Anglesey may occur as a result of the AyM OWF only through	coast represented by: Wales Coast Path
Value of the special quality - High  30 islands are included in the AONB designation	their visual interaction in views.  There are four islands that have	Sections:  C – Dulas Bay (short section);
Susceptibility to change: High to negligible where there is no visual relationship between many of the islands to the proposed development.	featured in the assessment of the effects on representative viewpoints and in some cases also the assessments of the effects on views from the Wales	E – Red Wharf Bay/ Penmon (eastern section); and F – Penmon and
The condition of the islands is variable.  These islands are an important	Coast Path.  The relationship of some of the	representative viewpoints:
physical link between the landscape and seascape of Anglesey.  P6, 1.2.3 - The geology of the AONB	islands to the coastline and their scale has a strong bearing on how and when they appear or	Viewpoint 4: Moelfre Headland; Viewpoint 7: Penmon Point;
consists primarily of Precambrian rocks. These rocks form the Mona Complex, a 6000 m basement that consists of metamorphosed sediments, volcanic and igneous	are influential features within the views out towards the AyM OWF. The relevant islands are located at a range of 100-900m and are generally very small low-lying islets and are therefore	and Viewpoint 8: Beaumaris; Elsewhere the effects on the Islands



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	of Anglesey, and consequently the AONB, has been formed from these Precambrian rocks. For example, the intensely folded South Stack, The Skerries, Carmel Head, Llanddwyn Island and Cemaes Bay are all part of the Mona Complex. They reflect their tectonic origin and were, in the main, formed at either constructive or destructive oceanic plate margins. Apart from the Scottish Highlands, Anglesey consists of the most extensive tract of ancient rocks in Great Britain (IACC 1999). Within the area of the Mona complex, geological coastal features such as cliffs, arches, inlets, caves and islands are distinctive features.  The factors noted that are affecting the condition of this special quality are:	not strongly influential features of wider views. This is with the exception of Puffin Island which is both larger and set on the end of a long headland so that it is a feature of wider views from around the headland.  Puffin Island is located approximately 700 m off Penmon Point in south-east Anglesey. It is considered as a feature in many of the representative viewpoints and in the Wales Coast Path assessment of Sections E - Red Wharf Bay/ Penmon and F - Penmon. Viewpoint 7: Penmon Point (Annex 10.6) is the key representative viewpoint close to Puffin Island. The magnitude of change on these stretches of the Wales Coast Path and	around Anglesey would be Minor to Moderate-Minor effect (Non- significant), adverse.



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Climate change and sea level rise;	representative VP 7 is assessed as <b>Medium or Medium-Low</b> .	
	<ul> <li>Changes in legislation;</li> <li>Natural processes; and</li> <li>Offshore developments.</li> <li>Sensitivity: High to low. This is based on the combination of the assessed value and susceptibility of the special quality to the proposed development for the different islands, many of which have no visible interrelationship with the proposed development.</li> </ul>	More distant views affected are represented by VP 6: Bwrdd Arthur, VP 28: Trwyn y Penrhyn parking layby and VP 8: Beaumaris. The magnitude of change at Viewpoints 6 and 28 is low in relation to this special quality as Puffin Island is not a key feature of these views that would be affected by AyM OWF. In Viewpoint 8 Puffin Island contributes an important physical link between the landscape and seascape that may be affected by the AyM OWF and is assessed as	
		Medium.	



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		East Mouse (Ynys Amlwch) is approximately 250 m off the north coast of Anglesey near Amlwch. Viewpoint 1: Bull Bay near Amlwch – Wales Coast Path (Annes 10.5) describes the visual relationship of the AyM OWF to the small islet. The magnitude of change is assessed as low.	
		Ynys Dulas is located approximately 900 m off the east coast of Anglesey to the north-east of Dulas Bay. It forms part of the wider views obtained from Viewpoint 14: Wales Coast Path near Penrhyn (Traeth yr Ora) (Annex 10.6) where the magnitude of change in the view is assessed as medium-low, however the island is part of wider views from	



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		this location and the AyM OWF would affect another part of the view, separated from the coast and islands by a large expanse of sea. The magnitude of change in this special quality is <b>low</b> .	
		It is also noted in the assessment of the Wales Coast Path Section C - Dulas Bay where the magnitude of change along this section of the path is assessed as <b>medium-low</b> . This would be the case for a short section of the route where Ynys Dulas is seen between the coastline and the AyM OWF in views from the coastal path or	
		in the same part of the views. A <b>medium-low</b> magnitude of change on this special quality would arise along a very short	



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		section of the WCP (approximately 1 km) near Porth y Aber. Elsewhere along the WCP section C the magnitude of change on this special quality would reduce to <b>low</b> .	
		Ynys Moelfre is located approximately 100 m from the headland at Moelfre and noted in the assessment of the effects on Viewpoint 4: Moelfre (Annex 10.5) where the AyM OWF is visible in the same part of the view from this location. The magnitude of change at this viewpoint is assessed as Medium-low.	
		The magnitude of change on the other 26 islands that lie around the coast of Anglesey	



	SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY		SIGNIFICANCE OF EFFECTS
-			would be low or there would be no change.	



- 553 The assessment has found there to be significant effects on landscape/ seascape and visual receptors within different parts of the AONB. In addition, significant effects on three Special Qualities have been assessed. None of these effects are direct ones, as the development is located outside the boundary of the AONB. This indicates that a degree of 'harm' is likely to arise in relation to the perceived impacts of the development on the wider setting of the AONB.
- This raises the question of whether or not this relationship between AyM and the AONB could be considered to meet the key inter-related requirements set out Section 10.2 and summarised as follows:
  - Has regard been had to the purpose of the AONB in line with the statutory duty?
  - Would it be in accordance with the NPS policy on AONBs to consent AyM and that any perceived adverse SLV impact of AyM would be outweighed by its benefits?
- Further information and assessment of this matter is included in the Planning Statement (application ref: 8.2) however it is worth reiterating here that NPS EN-3 recognises that these types of effect may arise, where it acknowledges in paragraph 2.6.20 that:
- 'Where a proposed offshore wind farm is within sight of the coast, there may be adverse effects. The [Secretary of State] should not refuse to grant consent for a development solely on the ground of an adverse effect on the seascape or visual amenity unless:
- 557 It considers that an alternative layout within the identified site could be reasonably proposed which would minimise any harm, taking into account other constraints that the applicant has faced such as ecological effects, while maintaining safety or economic viability of the application; or
- 558 taking account of the sensitivity of the receptor(s) as set out in EN-1 paragraph 5.9.18, the harmful effects are considered to outweigh the benefits of the proposed scheme"
- This confirms that the seascape, landscape and visual effects of AyM need to be considered in the planning balance in the context of other environmental impacts and the benefits of AyM as a whole.



- The question 'Would AyM cause such 'harm' to the IoA AONB that its overall integrity would be diminished such that it could no longer be considered to qualify as an area of outstanding natural beauty lies at the core of these effects. In determining the level of 'harmful' effects it is important to consider the likely effects of AyM on the integrity of the AONB which is a measure of the degree to which its Special Qualities continue to define the area. Factors to be considered in determining the degree of harm that may arise as a result of AyM, how this has been minimised through design, and how this should be considered in the decision-making process are set out below.
  - There are fourteen Special Qualities identified in the AONB MPR and it is the combination and interaction of distinctive resources and activities that form the basis of the designation. The majority of these resources (including features and special qualities) and activities would be unaffected by AyM due to its location at some distance from the AONB.
  - The AONB would therefore only be affected through visibility of AyM at a substantial distance offshore and not any physical change to the balance of features or activities therein. It is the relationship and quality of the receptors and activities within the AONB that largely define its inherent character and integrity and these are not affected by AyM.
  - The ZTV included in Figure 18a (Annex 10.5) shows the extent of the theoretical visibility of MDS A, which has been calculated to equate to 39% of the AONB (within the SLVIA Study Area). Parts of the AONB along the western coast of the loA are on the very edge of the study area. Figure 12b is the Hub Height ZTV for MDS A. By comparing these two figures it can be seen that much of the more distant WTG visibility would be of blades only (i.e. hubs are substantially less or not visible from these areas). This shows that actual visibility of AyM within the western and the majority of the northern coastal areas of the AONB would be extremely limited, particularly due to the incidence of intervening landscape and built features.
  - Actual visibility of AyM from within the eastern coastal areas is also largely restricted to coastal areas and open areas immediately inland or where there are elevated high points. This is due to the prevalence of vegetation that is part of much of the intervening landscape. This has a screening effect on the views obtained by people, particularly the large numbers travelling along roads where roadside vegetation is prevalent.



- AyM would be most visible (coastal or elevated) to assist in providing a clear understanding of the proposals and as such these viewpoints are likely to give rise to a significant effect. They are therefore not representative of views obtained from within large parts of the eastern section of the AONB, where similar visibility does not arise.
- The IoA AONB is predominantly coastal but also includes inland areas that form the backdrop to the coast. Some of its characteristics and Special Qualities include expansive views that may be over the seascape as well as the relative tranquillity, relative openness and exposure the seascape can evoke on the perception of the AONB.
- Expansive views from within the AONB are noted within the MPR to include not just views out to sea but 'By virtue of their height, scale and sheer size, the mountains of Snowdonia dominate the majority of the AONB's landscape.' Expansive views are described as occurring across the Irish Sea (potentially including AyM) but they are also described as including 'Views across those areas of Anglesey not included in the AONB designation; Local views, for example across the Menai Strait; and Distant views, such as to the Great Orme, Snowdonia, Llyn Peninsula and the Isle of Man, often described as "borrowed landscapes". The majority of the expansive views that include these features would not be affected by AyM.
- As set out as a requirement in Countryside and Rights of Way Act (2000) (CRoW) the 'relevant authorities' and the Applicant have had regard to the importance of the relationship of AyM to the AONB and its statutory purpose. This has been a focus of ETG discussions with IoA stakeholders and as a result the Applicant has sought to reduce the SLV effects of AyM on the IoA AONB through measures set out in Section 10.9. This includes a substantial reduction in the AyM array area, which has increased its separation from the AONB, reduced its horizontal extent within many views and substantially reduced the number of WTGs. In addition, the Applicant has proposed mitigation of visible aviation lighting effects to minimise the night time effects.
- The orientation of the AyM array area is such that its narrower horizontal extents are largely directed towards the IoA coast. This is particularly the case when considering the views of AyM from the northerly, more remote areas of the coast.



- Much of the easterly area of the AONB is located at distances of greater than 27 km from the AyM array area. This northerly part of the east coast of the AONB (between Red Wharfe Bay and Point Lynas) has a varied coastline that includes bays, headlands and a small number of small islands. Headlands and straighter sections of the coast have expansive views out across a large-scale, simple seascape (factors that are considered to increase the ability of the seascape to accommodate development) where the AyM array area would form a relatively small component of the available views. Bays may offer more contained views that include AyM however, their containment tends to offer a variety of orientations and also a greater focus on the more immediate coastal and defining landscape features. The significant effects on the representative viewpoints located along this section of the coast have been assessed as being of moderate level.
- The closer proximity area to the south-east of the IoA extends out along a short peninsula to include Puffin Island beyond Penmon Point (at a minimum range of 17.35 km from the AyM array area). It offers views that encompass a wide range of features including cultural heritage resources and large disused quarries. Views from locations such as Viewpoint 7: Penmon Point have been specifically sited (at the request of Stakeholders) so that there is the greatest interaction between the foreground lighthouse, Puffin Island and the AyM array beyond.
- Views from the northern section of the peninsula's coast (between Bwrdd Arthur and Penmon Point) include a wide expanse of open sea to the north between the north coast of the IoA and the AyM array area. Views to the east would, however, include the Great Orme with a backdrop that would include AyM. In views from the coastal areas of this short peninsula the effects are assessed as **moderate-major** (Significant).
- The landscape of the AONB and its context has evolved substantially over time in response to landownership changes, the material and social needs of society (including to support extensive mining, industry and energy production), health and safety of shipping through the introduction of lighthouses in prominent coastal locations, transportation and agricultural practices.



- Whilst there is no large-scale industrial development within the AONB there has, since its designation in 1966, been a strong association between the AONB and large-scale development, which is located very close to its boundaries. This includes the Wylfa nuclear power station; former aluminium smelting plant, and an RAF Training Base. In designating the AONB, it was considered acceptable for such large-scale developments to coexist alongside the designated area.
- The need to balance potential development that may be proposed within or affecting the AONB is recognised in the MPR. This notably relates to the tourist-related development, which is an important component of the economics of the IoA, but of more relevance is that 'There is a focus on Anglesey becoming an energy development Island both in Nuclear and Alternative Energy which may include large scale offshore wind farms, marine turbines and solar farms. The proximity of these industries to the AONB and the need to bring the energy ashore highlights their influence on both the landscape and the seascape of the AONB, and also the pressure from development in close proximity to the countryside and coast.' It must be construed from this that the MRP recognises the need to accommodate appropriately sited development alongside this nationally important landscape such that both aims can be achieved.
- It is accepted by the Applicant that there would be some significant adverse impact on the views towards the seascape from the AONB and that development of AyM would therefore not be consistent with objectives that seek to enhance the AONB. However, it is the case that almost no large-scale development would be able to comply with the principle of enhancement and therefore it must be anticipated that any major development would give rise to some degree of friction with such an aim.
- Following consideration of all of these factors it is considered that there would be some perceived diminishment of (harmful effects on) three of the special qualities and the natural beauty of the AONB associated with these. This is not considered to occur to such a degree that it would affect the overall integrity of the AONB or its inherent natural beauty and it would occur within a context and understanding of the need for change including accommodating new energy development.



## 10.11.4 Gwynedd

#### Effects on visual resource

- 563 Effects on the Gwynedd visual resource are considered primarily in relation to representative viewpoints, with reference to viewpoint visualisations contained in Annex 10.6. Thereafter, where visual receptors require further assessment the effects on the views of people in settlements and using the Wales Coast Path, NCR 5 and the A55, North Wales Expressway are also assessed.
- The assessments of the representative viewpoints then inform the assessments of the effects on landscape character and seascape character.
- Design refinements following stakeholder feedback have reduced the extent of the horizontal field of view affected by the AyM OWF by removing the westerly area of the AyM array area and the WTGs therein. The number of WTGs visible within the remaining AyM array area has also been reduced in all views from seascape, landscape and visual receptors.
- 566 The main focus of the assessment is on MDS A, however, an agreed selection of viewpoints also include assessment of MDS B.
- 567 Effects on the representative viewpoints are assessed in Table 8 and thereafter are used to inform the assessments of the effects on visual, landscape receptors.



Table 8: Effect on Gwynedd Representative Viewpoints During Construction/ Decommissioning and Operation.

VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
9: Bangor Pier (Southern End)	Located within Menai Coast LCA.  Bangor is in SCA 4 Menai Strait. Beyond this out to sea is SCA 3 – Traeth Lafan with the more distant sea views between the Great Orme and the rising ground being within SCA 2 – Conwy Bay and encompassing SCA 28 – North-east of Anglesey beyond.  The viewpoint is located on the Pier as it provides unobstructed views towards the AyM array area from this popular place for recreation	Construction/ Decommissioning: Negligible to Medium-low  Activity within array area at 29 km and vessel movements intensified in the vicinity during construction/ decommissioning work which is largely below sea surface or of limited extent - negligible.	Construction/ Decommissioning  Minor effect (Not-significant), adverse, short term, temporary during early stages of construction phase and latter stages of decommissioning phase.
	and is also a Listed structure.  The sea horizon forms approximately 17 degrees of the field of the varied 360-degree view. This view along the Menai Strait and out into Conwy Bay is contained by the pier and promenade at Beaumaris to the north and the Great Orme to the south.	Visibility of WTG structures as they are constructed/commissioned or dismantled, which will occur over a period of less than 18 months in each instance – Low.  Operation (MDS A): Medium-low	Moderate effect (Significant), adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate effect (Significant), adverse, long term, reversible.  Likelihood of effect  Requires Very Good or Excellent visibility.  Visibility frequency at this range: 51%.  Occurs most frequently in Summer.
	Operational OWFs likely to be noticeable on sea skyline during Very Good to Excellent visibility conditions to north-east at a minimum range of 32.9 km to Rhyl Flats.  Views from the pier include the elegant, historic structure itself. It has at each end small pagodas which are seen back-clothed to the south by the buildings of the edge of Bangor and to the north by the settlement that runs along the coastal Beaumaris Road and along the higher slopes from Lon Ganol where there are numerous houses, flatted developments and hotels set along the partially wooded slopes and this character extends along the southern edge of Anglesey towards the Menai Bridge. The bridge itself is not visible from this location on the pier due to intervening landform and buildings to the south-west. However, it is from closer to the northern end.  Views towards Beaumaris include the boat yard at Gallows Point with the edge of the town partially visible beyond, including the tower of St Mary's Church of Wales and the frontage buildings along Victoria	Movement and structures of 34 WTGs visible as prominent elements on the horizon and beyond the intervening rising, coastal landform at a distance of 29.2 km.  2 OSPs just visible amongst these.  WTGs visible across approximately 18 degrees of the sea horizon in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs of GyM.  WTGs are partially screened from view and appear behind the north coast in the vicinity of the boat yard and limited views of the settlement and pier at Beaumaris.  The WTGs appear separate from the most scenic parts of the view which include the Great Orme and the high ground of the edge of the SNP	
	Terrace.  The view from the pier is focused along the Menai Strait with the most scenic direction being towards the Great Orme and the rising land where the landform is more varied and there is less development apparent on the containing edges.	across the open water of the Menai Strait.  WTGs appear similar in height compared to the headland of the Great Orme, however they appear less prominent as a seascape feature	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	The sea views extend into the foreground and on the south side of the Strait provide the setting for the harbour where numerous vessels can	due to the relative solidity of the Great Orme and the visibility of the sky between the moving WTGs.	
	be seen set below the woodland associated with Penrhyn Castle with the edge uplands of the northern edge of SNP rising beyond. The open sea of the Menai Strait and Conwy Bay provides a unified and simple foil to these more complex parts of the view.	View of WTG MDS arrangement relatively consistent across the array area although there are two WTGs that in this MDS arrangement appear as outliers.	
	Value of view: Medium	Mitigation measures	
	Not located within any national or local landscape designation.	As a result of stakeholder feedback, the AyM	
	LANDMAP visual and sensory evaluation – moderate.	array area has been reduced. This has increased	
	Likely to be locally valued as setting for pier.	the distance to the AyM array area from this	
	Susceptibility to change: Medium-high	viewpoint and reduced its horizontal extents within the view as well as the WTG numbers.	
	Views from this location are likely to be part of intended experience, with the facilities offered also being part of the attraction. Seating is provided for people to pause and enjoy their surroundings and views.	Within the view as well as the WTG numbers.  Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
	Views along the Strait and towards the Great Orme and SNP edge uplands across the sea are the focus and most scenic part of the view.		
	Susceptibility is moderated by the relationship of the AyM array area to the viewpoint and current outlook/ context contains development features, although they are less prevalent towards the AyM array area.		
	Although on the edge of the settlement of Bangor the viewpoint is not representative of the views of residential receptors as these views tend to be screened by intervening landform or buildings or otherwise contain a foreground of development.		
	The view is partly representative of receptors on the WCP although these are less open than from the pier.		
	<b>Sensitivity: Medium-high -</b> taking account of the assessed medium value of the viewpoint and the medium-high susceptibility to the proposed change to it.		
17: Penrhyn Castle terrace	Located within Bangor Coastal Plain LCA.  Penrhyn Castle is in SCA 4 Menai Strait. Beyond this out to sea is SCA 3 – Traeth Lafan with the more distant sea views between the Great	Construction/ Decommissioning: Negligible to Medium-low	Construction/ Decommissioning  Minor effect (Not-significant), adverse, short term, temporary



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Orme and the rising ground being within SCA 2 – Conwy Bay and encompassing SCA 28 – North-east of Anglesey beyond.  The viewpoint is located on the curved part of the terrace, which is accessed through a formal, stone gateway on the east side of the	Activity within array area at 29 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or of limited extent – Negligible.	during early stages of construction phase and latter stages of decommissioning phase.
	castle. The terrace provides access to an eastern entrance into the castle and is part of the outlook from the Castle.  The views out from the terrace are partially obscured by intervening mature trees. This means that when the trees are in leaf sea views are only obtainable from the terrace in the vicinity of the viewpoint.	Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium-Low.  Operation (MDS A): Medium-low	Moderate effect (Significant), adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.
	The views from the terrace are across a foreground shrubbery and trees to the parkland and woodland of the Registered Park and Garden beyond. Rising above this are the farmed lower slopes and steep profile of the hills forming the northerly edge of the SNP with more mountainous forms apparent behind.	Movement and structures of 34 WTGs theoretically visible as prominent elements on the horizon at a distance of 29.3 km although some (approximately one half) of these are screened by intervening trees.	Operation (MDS A)  Moderate effect (Significant), adverse, long term, reversible.  Operation (MDS B)  Moderate effect (Significant),
	The sea horizon is seen beyond an area of open parkland and trees where it is visible between the Great Orme and intervening woodland. The open sea, which extends into Conwy Bay provides the foreground to the Great Orme and the steeply sloping hills to the south. The sea forms a small part of the wider context and setting of the Castle.  Operational offshore wind farms likely to be noticeable on sea skyline during Very Good to Excellent visibility conditions to north-east at a minimum range of 31.9 km Rhyl Flats. GyM OWF is seen either side of the Great Orme and along with Rhyl Flats above the isthmus at Llandudno. The scale of the turbines is such that although visible they	2 OSPs just visible amongst these. WTGs theoretically visible across approximately 19 degrees of the sea horizon in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs of GyM, however they extend WTG views cumulatively across the visible seascape skyline and horizon created by the isthmus at Lllandudno. The WTGs appear slightly separate from the most scenic parts of the view which include the Great Orme and the high ground of the edge of the	adverse, long term, reversible.  Likelihood of effect  Requires Very Good or Excellent visibility.  Visibility frequency at this range: 51%.  Occurs most frequently in Summer.
	are diminutive compared to other features within the view.  The elaborate and historically interesting Castle façade and entrances provide much of the immediate context and interest at this location.  The Castle itself is orientated so that the main facades and views from the rooms are largely orientated just to the south of directly east so	SNP across the open water of the Menai Strait. This along with the existing OWF influence and simplicity and scale of the seascape increases the capacity of the view to accommodate AyM. WTGs appear similar in height compared to the headland of the Great Orme.	
	they are not towards the AyM array area, which lies in a north- easterly direction  Limited parts of the Registered Park and Garden have views out towards the sea from areas of parkland that are crossed by paths,	View of WTG MDS arrangement relatively consistent across the array area.  Operation (MDS B): Medium-low	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	however most of the visitor interest is focused around the Castle, the walled garden and woodland walks from where the views in the direction of the AyM array area are screened and filtered by intervening woodland and other vegetation.  The WCP routes away from the coast around the south of the	Movement and structures of 50 WTGs visible as more prominent elements on the horizon although some (approximately one half) of these are screened by intervening trees. 2 OSPs just visible amongst these.	
	Registered Park and Garden. This section of the coastline forms large areas of mud flats when the tide is out.	WTGs visible across a similar horizontal field of view to MDS A.The WTGs are visible in the vicinity	
	Value of view: High  Registered Park and Garden.	of existing, but apparently smaller and more densely spaced, operational WTGs of GyM.  The WTGs appear slightly separate from the most	
	Not otherwise located within any national or local landscape designation.	scenic parts of the view which include the Great Orme and the high ground of the edge of the	
	Part of World Heritage Site  LANDMAP visual and sensory evaluation – high.	SNP across the open water of the Menai Strait.  This along with the existing OWF influence and	
	Susceptibility to change: Medium-high  Views out to sea from this terrace and other localised locations within	simplicity and scale of the seascape increases the capacity of the view to accommodate AyM.	
	the grounds would be obtained by visitors and National Trust workers, who will be transient. The views are generally limited by intervening	WTCs appear smaller in height compared to the	
	woodland and trees. Visitors are not currently encouraged to walk along the coast within the estate although they may visit the site of the historic bath.	View of WTG MDS B arrangement changes across the array area with some of the westerly rows aligned.	
	Views from this location are likely to be part of intended experience alongside the historic interest. The facilities offered by the Castle and the National Trust are also being part of the attraction.	Mitigation measures  As a result of stakeholder feedback, the AyM array area has been reduced. This has increased	
	Views across the parkland and wooded landscape towards the Great Orme and SNP edge uplands across the Conwy Bay are a small but important part of the view from the terrace although the wider views also include a contrasting mountainous landscape which are also important as part of the setting.	the distance to the AyM array area to this viewpoint and reduced its horizontal and vertical extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
	Susceptibility is moderated by distance to AyM array area and current outlook/ context contains development features, although they are less prevalent towards the AyM array area and are part of the historic context.		



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	The viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009) (Figure 10b, Annex 10.4).		
	<b>Sensitivity: High -</b> taking account of the assessed High value of the viewpoint and the medium-high susceptibility to the proposed change to it.		



## Bangor

- The city of Bangor lies on the North Wales coast on the southern edge of the Menai Strait, which separates the Isle of Anglesey from Gwynedd. The city is well connected with the A5 running through the centre of Bangor and providing links to Holyhead on Anglesey, Snowdonia, Shrewsbury and London.
- Immediately to the south of Bangor, the A55/ North Wales Expressway links to Holyhead and Chester and is the main road in North Wales. Bangor railway station is on the North Wales Coast Line from Crewe and Chester to Holyhead. Liverpool John Lennon Airport is 134 km away by road. Bangor lies on the North Wales Path, and on routes NCR 5, NCR 8 and NCR 85 of the National Cycle Network.
- Bangor is a small city and university town. Its High Street is claimed to be Wales' longest, and the modern Deiniol and Menai shopping centres complement its appeal to shoppers. The city has cultural facilities including the Pontio, a venue for theatre productions, film, music, circus, dance and other performing arts. Heritage features include a National Trust mansion and its grounds on the outskirts of Bangor, Penrhyn Castle; Green Wood Family Park, a popular family attraction; and Bangor Cathedral, which dates back to the 6th century.
- 571 The underlying landform of the settlement is quite complex with the land rising gently and then more steeply from the north-east to south-west but with some steeper slopes rising from the north-west. The Cathedral sits at an elevation of around 50m AOD. The historic, wooded Earthwork to the south of the pier at Garth prevents inland views from beyond.
- Value of views: Medium-high. The settlement is excluded from any National or Local landscape planning designations. The Anglesey AONB which lies on opposite side of the Menai Strait. To the south-west of the city is the Bangor Mountain & Minffordd rural hinterland SLA. These landscapes form part of its setting.



- Susceptibility to change: Medium-low. People in settlements tend to be susceptible to changes in views from their homes and frequently visited locations. The orientation of the settlement and the screening/containment provided by the intermediate buildings surrounding landform and trees/woodland are such that, sea views to the north-east from the settlement are very limited and where available from locations such as Beach Road they are not open but have intervening recreational and harbour development.
- Susceptibility is moderated by the distance of 29 km from the AyM array area, the separation from it by a wide swathe of intervening seascape and the developed context of any views towards it.
- 575 **Sensitivity to change: Medium -** taking account of the assessed mediumhigh value of the views and the medium-high susceptibility to the proposed change to them.

- 576 Figures 17.1 and 17.2 (Annex 10.5) illustrate the blade tip and hub height ZTV at Bangor respectively. This shows theoretical visibility of parts of 29-34 turbines across the majority of the settlement. However, actual visibility of the AyM OWF from the settlement does not generally reflect theoretical visibility from ground level within the settlement due to their orientation and intervening buildings, recreational/ harbour areas, local landform and vegetation.
- 577 The closest viewpoint to Bangor is Viewpoint 9: Bangor Pier. However, whilst it provides an idea of what open views would be like from the edge of the settlement, where views are more open (for example WCP, recreational area or harbour) at a similar range to the city the context of the views are dissimilar. Views from taller buildings within the city may be possible however, the magnitude of change is moderated in such views which would have an intervening urban context.
- 578 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to Medium-low during construction/ decommissioning Medium-low during operation.



- 579 Construction, Decommissioning: Minor to Moderate-Minor effect (Non-significant), adverse, short-term temporary.
- Operation (MDS A): Moderate-Minor effect (Non-significant), adverse, long term, reversible.

#### Wales Coast Path Section H - Lavan Sands

- 581 From Port Penrhyn this 15.5 km section runs to Llainfairfechan. Leaving the edge of Bangor, the path turns south from Port Penryn across the A5, past Maesgeirchen to pass through a wooded valley between areas of development and then out into the open countryside where it joins minor roads to traverse eastwards in a convoluted route to crossroad and rail lines and around small settlement areas. Passing between Tal Y Bont and Llandygai it turns north along a minor road to return to the coastline east of Penrhyn Castle Registered Park and Garden at a parking area north of Afon Ogwen. It then mostly follows the coastline between the beach and open farmland to Llanfairfechan although diverting around some large areas of mud flats and alongside nature reserves where there are hides for bird watching over the flats. Passing inland of a boating pool, the route turns inland to follow Caradog Place, Station Road/ Village Road under the A55/ North Wales Expressway and North Wales railway line, to the junction with Penmaenmawr Road.
- Leaving the strongly urban Bangor in the west, a large part of this section follows undeveloped coastline adjoining farmland. It is low and level, with a moderate climb where it turns inland east of Bangor. Expansive long views north across Traeth Lavan from this rural section of the path contrasts with enclosed, short views across the Menai Straits from Bangor. The exposure and large-scale of the mud flats, Conwy Bay contained by the surrounding landform including the Great Orme and the open sea visible beyond provides a strong contrast to the character provided by the inland landscape where the steep edge slopes of Snowdonia rise up beyond the shallow edge of farmland and infrastructure.
- 583 Rhyl Flats OWF is visible beyond Llandudno above the isthmus.



- No parts of this section of the WCP are classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b due to the proximity of the transport routes which are at times both visible and audible.
- Value of views: Medium-high. No part of this section is located within a National or Local landscape planning designation. It runs close to the Penrhyn Castle Registered Park and Garden and its setting to the south is influenced by views of SNP.
- Susceptibility to change: Medium-high. People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods.
- Views out to sea are very low-level across a varied foreground of mudflats, saltmarsh and beach areas. They are broadly channelled to the north and north-east by landform out across Conwy Bay between Puffin Island and the Great Orme.
- Susceptibility is moderated by the distance of 23-28 km from the AyM array area and the partially urbanised/ transportation influenced nature of the path's context.
- Sensitivity to change: Medium-high taking account of the assessed medium-high value of the views and the medium-high susceptibility to the proposed change to them.

- 590 Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the coast. This shows theoretical visibility of parts of 29-34 turbines across the majority of the route except where it runs inland of Penrhyn Castle.
- 591 Actual, clear visibility is likely to occur along the coastal parts of the route to the east of Penrhyn Castle east to Llanfairfechan, a distance of approximately 8 km.



- There are two viewpoints located on or near to this section of the WCP and that provide an idea of its visibility and range. These are Viewpoint 11: Llanfairfechan (assessed in Section 785) and Viewpoint 17: Penrhyn Castle Terrace.
- AyM OWF would be seen across part of the open sea skyline between Puffin Island and the Great Orme. It would be seen behind the Great Orme but separated by a band of seascape from Puffin Island. Views of the AyM OWF are most likely to be seen by east bound walkers.
- 594 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to Medium during construction/decommissioning Medium to Medium-low during operation.

- 595 Construction/ Decommissioning: Minor effect (Non-Significant) during early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant), adverse, short-term temporary along the 8 km, open coastal section of the route to the east of Penrhyn Castle east to Llanfairfechan. Moderate effect (Non-significant) elsewhere along the route.
- Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible along the 8 km, open coastal section of the route to the east of Penrhyn Castle east to Llanfairfechan. Moderate effect (Non-significant) elsewhere along the route.
- 597 Such effects are most likely to occur when travelling east along the WCP.



#### NCR 5

- The route of NCR 5 is shown on Figure 18.1 (Annex 10.5). It passes into Gwynedd along the Menai Bridge (Viewpoint 49). Thereafter it passes through the settlement of Bangor and then drops down towards the coast following the same route as WCP Section H to a point near to Bangor Pier (Viewpoint 9). From there NCR 5 follows the same route through the valley as WCP Section H to a point inland of Llandygai where it follows the routes of minor road that run inland parallel to the coast to Tan-y-Lon where it crosses over the A55, North Wales Expressway to run along minor roads to the south of it and along the base of or slightly up the side slopes at the boundary of SNP. The route passes through the village of Abergwyngregyn close to the A55, which it follows for the next 1.5 km to the boundary with Conwy.
- Value of views: Medium-high. No part of this section is located within a National or Local landscape planning designation. It runs close to the Penrhyn Castle Registered Park and Garden and its setting to the south is influenced by views of SNP.
- Susceptibility to change: Medium-low to negligible. People using NCRs tend to do so with the purpose of travelling between places for a particular purpose, which may include recreation or for exercise and appreciation of the views/ environment through which they pass to some degree. However, NCR users generally also require more concentration on the route and other road users than walkers on LDRs. They are transient, usually moving at a moderate speed, so do not tend to have the same view for long periods.
- This section of the NCR is varied with the majority of the route passing inland and through settled areas/ valleys where there is little visual relationship with the Irish Sea and the susceptibility to the proposed change is negligible. The coastal section to the east of Bangor and from the slightly elevated sections to the south of the A55 have a greater association with the seascape to the north-east and a medium susceptibility to change. Views out to sea from the coastal section at Bangor are across a busy harbour.



- Susceptibility is moderated by the distance of 24-32 km from the AyM array area and the incidence of intervening screening and closer range influences in the form of landscape/ built features as well as and the partially urbanised/ transportation influenced nature of the route's context.
- 603 **Sensitivity to change: Medium to Low -** taking account of the assessed medium-high value of the views and the medium-low to negligible susceptibility to the proposed change to them.

- 604 Figure 18 (Annex 10.5) illustrates the blade tip ZTV along this section of the coast. This shows theoretical visibility of parts of 29-34 turbines across the majority of the route except where it runs inland of Penrhyn Castle.
- Actual visibility is likely to occur from the Menai Bridge (Viewpoint 49) and along the coastal part of the route to the east of Bangor where visibility of AyM OWF would be partially obscured by the harbour development and vessels in the foreground.
- 606 East of Penrhyn Castle the route runs to the south of the A55 and rail line as well as numerous woodland blocks, all of which influence or partially obscure the views to the north-east towards the AyM array area.
- 607 From an approximately 1.5 km section of the route to the east of Crymlyn and west of Abergwyngregyn there is intermittent visibility towards AyM array area over the intervening coastal landscape (including the A55 and rail line) from this elevated section. AyM OWF would be seen across part of the open sea skyline between Puffin Island and the Great Orme. It would be seen behind the Great Orme but separated by a band of seascape from Puffin Island. Views of the AyM OWF are most likely to be seen by east bound cyclists at ranges of over 25 km to the AyM array area.
- 608 Through Abergwyngregyn and eastwards where the route runs alongside the A55 views north are obscured by intervening roadside vegetation.
- 609 Magnitude of change during construction, operation and decommissioning (MDS A): Medium-low or negligible



- 610 Construction, Decommissioning: Minor to Moderate-Minor effect (Non-significant), adverse, short-term temporary.
- Operation (MDS A): Moderate-Minor effect (Non-significant), adverse, long term, reversible.
- 612 Such effects are most likely to occur when travelling east along NCR 5.

# A55, North Wales Expressway

- 513 The route is shown on Figure 18.1 (Annex 10.5). It passes into Gwynedd shortly after Britannia Bridge. Thereafter, it becomes dual carriageway and runs to the south of Bangor and for a distance bounded by roadside vegetation and embankments which screen or filter views.
- Views out to sea become more possible and sustained to the west of Abergwyngregyn but tend to focus more on Conwy Bay and around Puffin Island than north-east towards the Great Orme.
- Views from the A55 for approximately 1 km through Abergwyngregyn are screened by buildings or roadside vegetation.
- 616 Views north-east out to sea open up for a short section approximately south of Pentre-du and west of Madryn. Views from this stretch of the route are possible intermittently between roadside vegetation across the farmed landscape of the narrow coastal strip which includes small, wooded areas, which screen and filter views out to sea to the north-east.
- 617 **Value of views: Medium**. No part of this section of the A55 is located within a National or Local landscape planning designation. Its immediate setting to the south is influenced by views of SNP.



- Susceptibility to change: Medium-low to negligible. People using the A55, North Wales Expressway are generally travelling at high speed with drivers concentrating on the immediate environment of the road and passengers highly influenced by this local environment which is largely contained. Views out to sea, from where they are possible within Gwynedd, offer some possibility for the appreciation of the views/environment through which the route passes. Road users are transient, and do not tend to have the same view for long periods.
- Susceptibility is moderated by the distance of 24-33 km from the AyM array area and the incidence of intervening screening and closer range influences in the form of landscape/ built features as well as and the predominantly urbanised/ transportation influenced nature of the route's context.
- Sensitivity to change: Medium to Low taking account of the assessed medium value of the views and the medium-low to negligible susceptibility to the proposed change to them.

- Figure 18 (Annex 10.5) illustrates the blade tip ZTV along this section of the A55. This shows theoretical visibility of parts of 29-34 turbines across the majority of the route except for sections to the south and south-west of Bangor where local landform screens visibility.
- Actual, visibility is likely to occur briefly for short sections to the east and west of Abergwyngregyn where views are possible intermittently between roadside vegetation across the farmed landscape of the narrow coastal strip which includes small, wooded areas, which intermittently screen and filter views of AyM OWF.
- Where views are possible AyM OWF would be seen across part of the open sea skyline between Puffin Island and the Great Orme. Views of the AyM OWF are most likely to be seen by east bound road users at ranges of approximately 24-26 km to the AyM array area.
- 624 Magnitude of change during construction, operation and decommissioning (MDS A): Medium-low or negligible.



- 625 Construction, Decommissioning: Minor to Moderate-Minor effect (Non-significant), adverse, short-term temporary.
- 626 Operation (MDS A): Moderate-Minor effect (Non-significant), adverse, long term, reversible.
- 627 Such effects are most likely to occur when travelling east along the A55.

# Effects on landscape character

#### LCA G01 - Bangor Coastal Plain

- This is a moderate scale LCA covering a diversity of settled landscape as well as coastal areas, including tidal areas of mudflats. The narrow coastal plain is bounded inland by Snowdon Massif and overlooked by parts of SNP.
- 629 Settlement includes the city of Bangor which rises up from the coast onto more elevated land. There is a strong influence of infrastructure, which includes the A55 North Wales Expressway and numerous 'A' roads that connect Bangor and the surrounding area to this. The main north Wales Chester to Holyhead rail route also runs through Bangor. These routes also provide vistas of the area, important as part of the and entrance to Gwynedd.
- The Penrhyn Estate has a strong, influence on landscape character to the east of Bangor on the coast where the landscape is notably planned with formal parkland around Penrhyn Castle, estate farms and settlement. The Castle is surrounded by a Registered Historic Park and Garden, run by the National Trust and is largely enclosed by walls and woodland, which locally contain its influence. Penrhyn Castle is now part of a World Heritage Site.



- 631 East of Penrhyn the coastal landscape is relatively flat up to the edge of the steeply sloping edge of SNP and this coastal landscape is one of open fields with some small woodland areas. Vernacular boundaries, especially slate fences, cloddiau and hedges are present and provide a strong sense of place.
- The A55 and rail line run along this narrow strip set back slightly from the coast and have a strong influence both visually and audibly.
- 633 The landscape of the LCA is dissected by a number of small south to north running streams and small, wooded valleys. It also includes historically important industrial relics at Nantlle Slate Quarries.
- 634 Beyond the coast there is a large expanse of intertidal sand and mudflats at Traeth Lafan, which also forms part of this LCA. The inter-tidal zone is also a significant nature conservation resource and has been included within the proposed Marine Nature Reserve. There are facilities to support bird watching activities across the mud flats.
- The coastal and more upland areas of the LCA have strong visual links with the Menai Straits and southern edge of the Anglesey AONB.
- 636 Cross reference to SCA 3 Traeth Lafan and SCA 4 Menai Strait in Section 10.11.3.
- 637 Value of the landscape character: Medium-high. A proportion of the inland areas of this LCA are located within the Bangor Mountain & Minffordd rural hinterland SLA and the northern extent of the Northwestern Fringes of Snowdonia SLA. The Penrhyn Castle Registered Historic Park and Garden is also a valued component of the landscape. Reference should be made to Figure 10a, Annex 10.5 for their locations.
- Susceptibility to change: Medium-low within and to the south and south-west of Bangor, Medium along the coastal edge to the north-east and east of Bangor and including the mudflats. The LCA is relatively complex with a varied landcover of settlement, designed landscape, farmland, numerous routes and wooded areas. Susceptibility to the AyM OWF varies across the LCA.



- The majority of the settled area has little connection with the seascape to the north with the north-west facing slopes of the LCA having their main influence across the Menai Strait to the IoA.
- The parts of the LCA which have the greatest association with the seascape to the north-east and therefore, susceptibility to changes occurring within it are along the coastal edge to the north-east and east of Bangor and including the mudflats. These areas are however strongly influenced by infrastructure and other human interventions.
- The outer reaches of the LCA covering part of the mudflats at Traeth Lafan are classified as 'Undisturbed' in the Tranquillity Classification (2009) (Figure 10b, Annex 10.5).
- Susceptibility is moderated by the distance to the AyM array area of between around 22-34 km and the strength of the settled characteristics that define much of this LCA as well as the other strongly characterising influences to the north-west and south.
- Sensitivity to change Medium within Bangor and to the south and south-west of it. Medium-high along the coastal edge to the north-east and east of Bangor and including the mudflats. This takes account of the assessed medium-high value of the landscape and the varied susceptibility to the proposed change to them.

- The offshore elements of AyM would not directly alter the character of this LCA through any changes to its inherent components or patterns. Its influence is only through visibility as part of the LCA's diverse wider setting at a range of 22-34 km.
- Figure 16a (Annex 10.5) illustrates the blade tip ZTV within this LCA. This shows theoretical visibility of parts of 29-34 turbines across substantial parts of the LCA. Theoretical visibility is restricted to the south-west by intervening, rising landform within the LCA itself so that WTG visibility is less extensive or there is no visibility.
- Away from the coastal strip to the north-east of Bangor actual visibility of AyM OWF is likely to be limited due to tree cover and screening by intervening built development, particularly within and around Bangor.



- The ZTV is shown to rise up the steep slopes to the south of the A55 North Wales Expressway and these areas would provide further vantage points and views of AyM OWF. These areas along with the coastal areas and mud flats along the stretch of the LCA that runs to the north-east of Bangor will have visibility of the AyM OWF as part of the seascape that has a close association with and visual containment by the landscape features of Penmon Point and Puffin Island to the north-north east and the Great Orme to the north-east.
- Viewpoints 9 and 17 (Annex 10.6) have been selected to illustrate open, clear views towards the AyM OWF and show a range of AyM WTG visibility. The assessments for viewpoints 9 and 17 have assessed the magnitude of change in the views as Medium-low at these locations which are located within the central, coastal part of the LCA.
- The coastal and sloping areas to the north-east of Bangor, as well as the mudflats are at closer proximity to the AyM array area where there is particularly high exposure and relationship with the contained views of the seascape as occurs within the coastal and elevated parts of this LCA.
- The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCA is generally likely to be lower than is identified for a viewpoint and this is particularly the case where other characteristics are more prominent features of character such as in the inland and southern parts of this LCA which are strongly influenced by the Menai Strait, IoA and SNP seascape/landscapes.
- 651 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to no change during early stages of construction and latter stages of decommissioning, otherwise Medium to No change.
- 652 The Medium magnitude of change relates to the coastal, north-easterly exposed areas to the north-east of Bangor extending inland by approximately 0.3-1 km to the edge of the rail line. Elsewhere in this LCA the magnitude of change in character will be lower or there will be no change.



## Significance of effect

- 653 Construction/ Decommissioning: Minor effect (Non-significant) during early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant), adverse, short-term temporary in the coastal, exposed areas to the north-east of Bangor, extending inland by 0.3-1 km. Minor effect (Non-significant), adverse, short-term temporary elsewhere within the LCA.
- Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible in the coastal, exposed areas to the north-east of Bangor, extending inland by 0.3-1 km.
- 655 **Minor effect (Non-significant)**, adverse, long term, reversible elsewhere within the LCA.

## Effects on seascape character

656 The effects on SCA 3 – Traith Lafan are assessed in Section 10.11.3.

#### 10.11.5 Snowdonia National Park

#### Effects on visual resource

- 657 Effects on the SNP visual resource are considered primarily in relation to representative viewpoints contained in Annex 10.6. Thereafter, where visual receptors require further assessment the effects on the views of people in settlements and using the Wales Coast Path are also assessed.
- The assessments of the representative viewpoints then inform the assessments of the effects on landscape character, seascape character and the effects on the Special Qualities of the SNP.
- Design refinements following stakeholder feedback have reduced the extent of the horizontal field of view affected by the AyM OWF by removing the westerly area of the AyM array area and the WTGs therein. The number of WTGs visible within the remaining AyM array area has also been reduced in all views from seascape, landscape and visual receptors.
- The main focus of the assessment is on MDS A, however, an agreed selection of viewpoints also include assessment of MDS B.



661	Effects on the representative viewpoints are assessed in Table 9 and
	thereafter are used to inform the assessments of the effects on visual,
	seascape and landscape receptors.



Table 9: Effect on SNP Representative Viewpoints During Construction/ Decommissioning and Operation.

Located within the Carneddau Range LCA.  Carnedd Llewelyn is the highest summit in the Carneddau mountain range, which is the largest, contiguous area of high ground (over 910 metres, 3000 feet) in Wales and England and	Construction/ Decommissioning: Negligible to Medium-low	Construction/ Decommissioning
includes around half of the highest peaks in Wales.  The Carneddau range is bounded by the Irish Sea to the north, the Conwy valley to the east and the A5 road to the south and west. Carnedd Llewelyn is located near the southern edge of the range with the A5 running at the base of its south facing slopes.  The viewpoint is located at the summit where the elevation is 1064m AOD. The summit itself is a relatively wide plateau set above rocky slopes to the north and steeply sloping to sheer side slopes in other directions, which make for more challenging approaches from locations along the A5 to the south.  The summit can be approached along PRoW and other paths from the coastal settlements via the North Wales Path. The routes from the north lead across a number of summits, which may include Foel-fras (Viewpoint 38) or other peaks	Activity within array area at 32.4 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or of limited extent – Negligible.  Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium -Low.  23 degrees  Operation (MDS A): Medium-low  Movement and structures of 34 WTGs visible as elements within the seascape. 2 OSPs just visible amongst these.  WTGs visible across approximately 18degrees of the seascape at a range of 32.6 km seen as an extension to and in the vicinity of existing, but	Minor (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate effect (Significant), adverse, short-term, temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate effect (Significant), adverse, long term, reversible.  Operation (MDS B)  Moderate effect (Significant), adverse, long term, reversible.  Likelihood of effect
	extension to and in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs of GyM and extending the	
it along rough paths.  There is a small, stone enclosure at the summit to provide shelter in poor weather.  The panoramic views from the summit are spectacular and varied. The baseline photography includes the 360-degree view.  The view north is presented in Figure 37c and shows the plateau of the summit, which screens some of the intervening hills that		lower than at Rhyl due to the increased humidity generally found at elevated locations and out over the sea.  Occurs most frequently in Summer.
	the Conwy valley to the east and the A5 road to the south and west. Carnedd Llewelyn is located near the southern edge of the range with the A5 running at the base of its south facing slopes.  The viewpoint is located at the summit where the elevation is 1064m AOD. The summit itself is a relatively wide plateau set above rocky slopes to the north and steeply sloping to sheer side slopes in other directions, which make for more challenging approaches from locations along the A5 to the south.  The summit can be approached along PROW and other paths from the coastal settlements via the North Wales Path. The routes from the north lead across a number of summits, which may include Foel-fras (Viewpoint 38) or other peaks incorporating Carnedd Llewelyn as part of circuit.  All approaches to Carnedd Llewelyn are challenging either due to the steepness of the slopes and rugged terrain or the distances and intervening hills that have to be crossed to get to it along rough paths.  There is a small, stone enclosure at the summit to provide shelter in poor weather.  The panoramic views from the summit are spectacular and varied. The baseline photography includes the 360-degree view.  The view north is presented in Figure 37c and shows the plateau	Visibility of WTG structures as they are constructed/commissioned or dismantled which wast. Carnedd Llewelyn is located near the southern edge of the range with the A5 running at the base of its south facing slopes.  In the viewpoint is located at the summit where the elevation is 1064m AOD. The summit itself is a relatively wide plateau set above rocky slopes to the north and steeply sloping to sheer side slopes in other directions, which make for more challenging approaches from locations along the A5 to the south.  The summit can be approached along PRoW and other paths from the coastal settlements via the North Wales Path. The routes from the north lead across a number of summits, which may include Foel-fras (Viewpoint 38) or other peaks incorporating Carnedd Llewelyn as part of circuit.  All approaches to Carnedd Llewelyn are challenging either due to the steepness of the slopes and rugged terrain or the distances and intervening hills that have to be crossed to get to talong rough paths.  There is a small, stone enclosure at the summit for provide shelter in poor weather.  The panoramic views from the summit are spectacular and varied. The baseline photography includes the 360-degree view.  The view north is presented in Figure 37c and shows the plateau of the summit, which screens some of the intervening hills that separate Carnedd Llewelyn from Foel-fras, which is the



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	top. Beyond this the hill known as Drum is seen dropping down with the linear, rocky summit of Tal y Fan (Viewpoint 36) rising above. These summits form a strongly characterising, upland influence and setting to Carnedd Llwellyn. This then gives way to a backdrop of open sea to the north, the Great Orme (just visible) to the north-north-east and the settled coastal areas and agricultural landscape set around more sloping, often wooded, low hills and river valleys including the extensive Vale of Conwy which lies across the area to the east. Beyond the coastal areas, to the east of the Great Orme and extending across a wide area of sea the operational wind farms can be seen in very good visibility. The closest is Rhyl Flats at 30.8 km with GyM extending over a larger part of the field of view but at a greater distance of 37 km. North Hoyle is just visible (requiring excellent visibility conditions) at a range of 43.3 km. The layouts of the various operational OWF and their relationship to each other appears slightly discordant.  Views east include a narrow extent of lower edge hills of SNP above the expansive, settled, agricultural and markedly patterned landscape of the Conwy Valley with the Dee Valley and Clwydian Range beyond. Areas of higher ground across this landscape include onshore wind farm development.  Further south within the panorama the land rises again towards the eastern edge of SNP. The views to the south-south-west round to the south-west are markedly rugged and include the most dramatic side slopes and summits of Carnedd Dafydd and Tryfan with Foel-goch, Glyder Fawr and Glyder Fach seen beyond. The summits and ridges are layered across the view and extend into the distance to create jagged, upland skyline with some distant visibility of the coast and sea beyond. The upland area of Carnedd Llwelyn screens visibility of the intervening valley and the A5 to the immediate south.  The dramatic slopes and hills drop down from the summit of Carnedd Dafydd towards the lower lying areas of Gwynedd with	The western extent of the AyM OWF extends across a part of the view that has little in the way of human influence, although it is generally associated with the more settled coastline and seascape of the north. It does not, however, extend across the seascape backdrop of the highly influential and remote foreground that is created by the summit plateau of Carnedd Llewelyn itself.  It does not encroach on the markedly less developed, more remote uplands of the SNP which form a large part of the remaining panoramic view and characterise a large extent of the foreground and middle ground of the view towards the array area.  WTGs appear smaller in height compared to the most prominent landforms, however the operational OWF WTGs and coastal settlement at and around Llandudno and on the Great Orme itself provide scale comparisons that indicate the large size of the WTGs.  View of WTG MDS arrangement relatively consistent across the array area with the north to south running rows more notable to the west of the array area.  The existence of the OWFs in this part of the view, the settled coastline and the large scale simplicity of the seascape backdrop of this view together increase its capacity to accommodate AyM.  Operation (MDS B): Medium-low  Movement and structures of 50 WTGs visible at a range of 32.5 km as elements within the seascape. 2 OSPs just visible amongst these.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	hills. The view to the west extends across a relatively flat, settled, agricultural landscape to the coast and sea or across the Menai Strait to Anglesey seen beyond.	WTGs visible across a slightly wider horizontal field of view than MDS A as part of panoramic very views from this location.	
	Value of view: High	MDS B is more densely spaced than MDS A.	
	Value of view: High  Located within the SNP.LANDMAP visual and sensory evaluation – outstanding (Figure 9, Annex 10.5)  Susceptibility to change: High  Receptors are people walking with a focus on reaching the summit for exercise and challenge as well as to obtain the expansive views visible from the summit. They are transient so views from this location will be relatively short in duration although they may be slow moving.  This viewpoint is located in an area identified as Undisturbed in the Tranquillity Classification (2009) (Figure 10b, Annex 10.4).  The upland setting of the summit and Carneddau Range provides a strong inherent character and separation from the location of the AyM OWF site. Views in the direction of the AyM array area are not the focus of the views, which is to the south and south-west across the more dramatic summits of SNP. The complexity and interest of the coastline to the north (i.e. around the Great Orme) is largely hidden by the intervening landform.  The panoramic views from the summit include lowland areas and seascapes that encompass numerous forms of human		
	influence and development including settlement, a large quarry, onshore wind farms, masts and offshore wind farms to the north-east of the Great Orme.  Susceptibility is moderated by the relationship of the viewpoint to the AyM array area at a distance of 32.4 km  Sensitivity: High - taking account of the assessed high value of the viewpoint and the medium-high susceptibility to the proposed change to it.	reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
12: Conwy Mountain	Located within the Northern Uplands LCA.  Conwy Mountain is on the landward edge of SCA 2 – Conwy Bay with more distant views encompassing SCA 28 – North-east of Anglesey and SCA A – Llandudno Bay and SCA B – Colwyn Bay with SCA F – North Wales Open Waters beyond.  This viewpoint is located on the summit at 244m AOD on the WCP and can be reached also via a number of different PRoW that provide links from around Conwy and the Synchant Pass Road to the south where there are several parking areas.  It is a popular viewpoint and outlook partly due to its relatively accessible location close to settlement and other facilities. The immediate context of the viewpoint is the diverse rock and grass/ heather covered summit and side slopes of the Mountain itself. Parts of this are notably eroded by the heavy use of the area.  The outlook from the summit is panoramic and diverse. Views over the seascape occur over approximately 180 degrees of the field of view. However, intervening hill forms as well as Great Orme and Llandudno Bay break up the expanse.  The views include the extensive settlement across the Llandudno isthmus and extending along the far coast at Penrhyn Bay and Colwyn Bay beyond intervening high ground and in closer proximity at Llandudno Junction and Cowy on either side of the River Conwy.  At this range development is also seen extending around the lower western side slopes of the Great Orme at Gogarth and up onto higher ground from the south. The summit complex as well as other buildings associated with the various visitor attractions are also visible.  Operational offshore wind farms likely to be apparent as part of seascape to east of Great Orme during Good, Very Good to Excellent visibility conditions to north-east at a minimum range of 15.7 km to Rhyl Flats.	Construction/ Decommissioning: Negligible to Medium  Activity within array area at 17.3 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or of limited extent – Negligible.  Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium  Operation (MDS A): Medium  Movement and structures of 34 WTGs visible as prominent elements within the seascape, close to the horizon at a range of 17.3 km. Met mast just visible to west but may be missed due to its slender construction. 2 OSPs visible amongst the WTGs.  WTGs visible across approximately 30 degrees of the seascape near the horizon seen as an extension to and in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs of GyM.  The WTGs extend behind the Great Orme and parts the WTG towers are obscured behind it, so that they appear to sit upon the summit.  However, the array area extends further east so that its location out at sea is readily understood.  The OWF is largely associated with parts of the view that have apparent development characteristics and it sits beyond the Great Orme and the developed coastline of Llandudno. It therefore does not encroach on the less developed upland at Conwy Mountain or the	Minor (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Major-Moderate (Significant), adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Major-Moderate (Significant), adverse, long term, reversible.  Operation (MDS B)  Major-Moderate (Significant), adverse, long term, reversible.  Likelihood of effect  Requires Good, Very Good or Excellent visibility.  Visibility frequency at this range: 77%.  Occurs most frequently in Summer and winter.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	GyM OWF and Burbo Bank and Extension OWF are visible close to the sea horizon, but the Rhyl Flats OWF is seen at closer proximity beyond Little Orme.  Views to the south-east include the farmed and wooded valley of the River Conwy which is contained on either side by rising ground. To the east the Conwy hills include relatively small-scale onshore wind farm developments, which are visible as groups across sections of the skyline.	more remote landscape of the SNP, which form a large part of the remaining panoramic view.  WTGs appear smaller in height compared to the most prominent landform of the Great Orme, however the operational turbines and buildings at Llandudno and on the Great Orme provide scale comparisons that indicate the large size of the WTGs.	
	To the south and south-west the rising ground is within SNP and becomes progressively more elevated and rugged further inland and at greater distances from the viewpoint. The steep forms of Penmaen-bach and Foel Lus immediately to the west of the viewpoint form distinctive features at the transition between the mountains and sea.  Value of view: High  Located within the SNP	The existence of the OWFs in this part of the view, the settled coastline and the large scale simplicity of the seascape backdrop of this view together increase its capacity to accommodate AyM. View of WTG MDS arrangement relatively consistent across the array area although there is some 'stacking' of WTGs where they align along the westerly rows.	
	LANDMAP visual and sensory evaluation - high	Operation (MDS B): Medium	
	Susceptibility to change: Medium-high  Receptors are people walking with a focus on reaching the summit for exercise and to obtain the expansive views visible from the summit. They are transient so views from this location will be relatively short in duration although walkers may be slow moving.	Movement and structures of 50 WTGs visible as prominent elements near the horizon, at a range of 17.3 km. Met mast just visible to west but may be missed due to its slender construction.2 OSPs visible amongst the WTGs.  WTGs visible across a greater horizontal field of view than the MDS A.	
	The Great Orme is a focus for views and the AyM array area will be seen in the same part of the view.  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint which is at a considerable distance and current outlook contains many development features.  Sensitivity: High - taking account of the assessed high value of the viewpoint and the medium susceptibility to the proposed change to it.	WTGs visible across the seascape near the horizon seen as an extension to and in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs of GyM. The scale comparison is less extreme than for the MDS A.  The WTGs extend behind the Great Orme and parts of the WTG towers are obscured behind it, so that they appear to sit upon the summit. However, the array area extends further east so that its location out at sea is readily understood.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		The OWF is largely associated with parts of the view that have apparent development characteristics and it sits beyond the Great Orme and the developed coastline of Llandudno. It therefore does not encroach on the less developed upland at Conwy Mountain or the more remote landscape of the SNP, which form a large part of the remaining panoramic view.	
		WTGs appear smaller in height compared to the most prominent landform of the Great Orme, however the operational turbines and buildings at Llandudno and on the Great Orme provide scale comparisons that indicate the large size of the WTGs.	
		The existence of the OWFs in this part of the view, the settled coastline and the large scale simplicity of the seascape backdrop of this view together increase its capacity to accommodate AyM.	
		View of WTG MDS B arrangement relatively consistent across the array area although there is some 'stacking' of WTGs where they align along the westerly rows. Three WTGs extend the array area behind the GyM WTGs which causes a degree of visual complexity.	
		Mitigation measures	
		As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced its horizontal extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
34: Snowdon (Yr Wyddfa) summit	Located within the Snowdon Massif LCA.	Distance to array area 44.3 km	Construction/ Decommissioning



the highest point in the British tles, outside the Scottish Highlands. Its elevation enables open, 360-degree panaramic views from the summit, where the fore and middle ground of the view are also within SNP.  It is accessible along numerous hill routes, some of which are renowned for their challenging nature, but also frequently by the Snowdon Mountain Railway, which usually takes passengers close to the summit station and visitor centre. Access is currently restricted (due to COVID-19 circumstances) to 1 % of the way to the summit leminating al Clogwn Station.  As a result of this relative ease of access as well as the desire to ascend this substantial peak, Snowdon is the busiest mountain in the United Kingdom. In 2019 it is said to have been visited by over half a million walkers with a turther 140k visiting by training the volume of visitors and the incidence of the numerous paths/steps, frain and visitor facilities, although mostly relatively discreet, do reduce any sense of remoteness and tranquility that might otherwise arise from a peak of this scale.  Volcanic in origin the summit and surrounding area have been extensively modified by glaciation, so that many characteristic examples of glacial features are visible from the summit and approaches. This includes numerous glacier lakes and arales as well as extensive scree slopes. The mountains are frequently logged and the peaks make for strong contrasts between light and shaded areas, adding to their dramatic effect.  There is very little vegetation across the high peaks, however the elevation provides extensive panaramic views which include views of the wider area as well as views into the lower, more distant intervening landtom. His parks are likely to reduce the lower, more distant intervening landtom. The wore of the first provides the summit and to the peak make for strong contrasts between the lower, more distant intervening landtom. The lower is the summit and the lower, more distant intervening landtom.	VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
arassland. These more finely grained greas starkly contrast with this range and from this elevated location so that	VIEWPOINT	Af 1085m AOD Snowdon is the highest mountain in Wales and the highest point in the British Isles, outside the Scottish Highlands. Its elevation enables open, 360-degree panoramic views from the summit, where the fore and middle ground of the view are also within SNP.  It is accessible along numerous hill routes, some of which are renowned for their challenging nature, but also frequently by the Snowdon Mountain Railway, which usually takes passengers close to the summit station and visitor centre. Access is currently restricted (due to COVID-19 circumstances) to ¾ of the way to the summit terminating at Clogwyn Station.  As a result of this relative ease of access as well as the desire to ascend this substantial peak, Snowdon is the busiest mountain in the United Kingdom. In 2019 it is said to have been visited by over half a million walkers with a further 140k visiting by trainii  The volume of visitors and the incidence of the numerous paths/ steps, train and visitor facilities, although mostly relatively discreet, do reduce any sense of remoteness and tranquillity that might otherwise arise from a peak of this scale.  Volcanic in origin the summit and surrounding area have been extensively modified by glaciation, so that many characteristic examples of glacial features are visible from the summit and approaches. This includes numerous glacier lakes and arêtes as well as extensive scree slopes. The mountains are frequently jagged and the peaks make for strong contrasts between light and shaded areas, adding to their dramatic effect.  There is very little vegetation across the high peaks, however the elevation provides extensive panoramic views which include views of the wider area as well as views into the lower, greener, valleys and surrounding side slopes with improved, subdivided grassland. These more finely grained areas starkly contrast with	Construction/ Decommissioning: Low/ negligible Activity within array area at 44.3 km and vessel movements intensified in the vicinity theoretically visible, although unlikely to be actually visible at this range and from this elevation.  Theoretical but unlikely or very limited actual visibility of WTG and OSP structures as they are constructed or dismantled.  Operation (MDS A): Low  The array area is theoretically visible in the seascape beyond the mountainous summits that appear to the east of the summit of Garnedd Ugain which is a prominent peak to the north of Snowdon. It is part of the Snowdon Horseshoe route providing a link to the route of one of the famed mountaineering routes of Crib Goch.  Walkers who have ventured along this route as well as people pausing/sheltering on the north side of the Snowdon summit are likely to have some focus on the view in this direction. More diverse and dramatic views are considered to occur to the east and west of this.  From the viewpoint parts of up to 17 WTGs are theoretically visible (at a range of 44.3 km) beyond the lower summit of Y Garn and lower mountains beyond and extending east where the array area then becomes screened behind the lower, more distant intervening landform. However, it is considered that the wireline overemphasises actual visibility of the AyM OWF at this range and from this elevated location so that	Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate-Minor effect (Non- significant), adverse, short-term temporary adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate-Minor effect (Non- significant), adverse, long term, reversible.  Likelihood of effect  Requires Excellent visibility (as per Rhyl data).  Visibility frequency at this range:

 $<sup>\</sup>label{thm:primary-education} \parbox{$^{$\ $}$ (https://www.snowdonia.gov.wales/addysg-education/primary-education/snowdonia/snowdon).}$ 



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	The water in the lakes also provides further contrast, emulating the colour of the sky so that they appear as grey or blue, flat forms in contrast to their surroundings.  The sky is an important part of views from the summit and views	the distant, large scale, simple backdrop and the wide panoramic views from this location which include a diversity of seascapes/ landscapes, forming the setting of Snowdonia. These factors	viewpoint/ the photographs were taken and the contrast of the WTGs with the sea backdrop would need to be unusually
	to the coast and sea beyond are noticeable to the west where the coast is approximately 17.5 km away from the viewpoint.	ensure that this view has the capacity to accommodate AyM.	marked.  Occurs most frequently in
	The closest parts of the coast to the north are at Conwy Bay.  A review of images on the internet provides a useful reference	The ZTV shows that the area at the summit of Snowdon that may gain visibility of the WTGs of	Summer.
	for the extent of visibility in clear conditions and also which views are considered to be the most scenic and frequently photographed. Notably the view images taken by people on the summit often include contrasting features of waterbodies and summits. The direction of the sun will also be a consideration for photographers and this may also be a factor in the most photographed view being towards the Llyn Llydaw reservoir and the curving rock face of Y Lliwedd to the east and south-east respectively.	the MDS is very small, covering only the summit. There would be a similar level of visibility from the summit of Garnedd Ugain. The ZTV extends over approximately 1 km section of the rail route and paths to the north of the summit. The maximum extent of theoretical visibility of the turbines is shown to be up to 21 with the majority of the ZTV being of 1-7 turbines. A similar level and area of theoretical visibility is shown across the ridge to the east of Garnedd Ugain where there is a	
	In respect of the photographic images taken in some of the best visibility conditions it is shown that in the majority of cases the sea is not visible. Some professional photographs in very	section of mountaineering route. At Crib Goch itself there is shown to be parts of up to 7 WTG visible.	
	clear visibility conditions have presented views that include the sea to the west. A single view was found during an internet	Mitigation measures  As a result of stakeholder feedback, the AyM	
	searchiii where the sea is visible over a small extent to the north. It is difficult to distinguish the sea from the sky other than by following the horizon of the land which is more distinguishable to the east. This was also the case during the excellent/ exceptional visibility conditions when the viewpoint photography was undertaken.	array area has been reduced. This has reduced its horizontal extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
	It may be possible to see the parts the sea that include the array area in exceptional weather conditions. The effects of the elevation and intervening air moisture/ haze as a result of this are a factor that reduces the incidence of the likely occurrence		
	of visibility from the normal frequency of 'excellent' at this range.		



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	It was not possible to take the baseline photographs from the absolute summit of Snowdon due to the very large volume of people there. They are instead taken from the slightly lower path at a level approximately 3-4m below the summit.		
	The weather forecast and reported information about humidity for the day of photography reported very good visibility conditions and relatively low levels of humidity which are generally considered to provide the best conditions for long range landscape photography. Humidity levels out at sea have generally been higher than over the land during the photography field work, reducing the range of clear visibility.		
	The view north and north-east is across the jagged arete of Crib y Ddysgl which Is the final challenge of the ascent of Snowdon via Garnedd Ugain along the Crib Goch route.		
	Beyond this the land in the Snowdon range drops down to the Pass of Llanberis and the route of the A4086 before rising up again to the Glyderau range where Glyder Fawr is seen just below the sea skyline. Behind Glyder Fawr is Carnedd Dayfdd and visible just above this, is the plateau summit of the highest peak in the Carneddau range, Carnedd Llwellyn (Viewpoint 10, Annex 10.4).		
	Together these upland areas create a varied, mountain skyline and a substantial depth and sense of separation from the seascape to the north.		
	The sea is just possible to pick out beyond the lower, intervening areas of mountain skyline although it is difficult to differentiate this from the sky above. Even in the exceptionally clear weather conditions and with the sun above and slightly to the south-west (i.e. shining on the operational OWF WTGs, which are shown to be theoretically visible above and beyond the jagged summits of Glyder Fawr and Tryfan) it was not actually possible to see them with the naked eye from this location.		
	The wireline view therefore over represents their actual visibility.  This is as a result of their low degree of contrast with the sea backdrop and the scale of the components along with visual		



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	acuity. Notably, it was also not possible to see the more bulky forms of the large ships that are generally visible within this part of the Irish see and that were noticeable in the closer range views within SNP from Viewpoint locations 10 and 38.		
	Further to the north and north-west can be seen the lower, farmed, edge slopes of the SNP which also include extensive quarried faces with the settled, flat landscape and eastern and western coasts of Anglesey extending beyond.		
	A similar lowering in elevation and land-use change occurs to the east where the lower lying land of the Vale of Conwy is visible with land rising beyond. There are no obvious quarries in this direction, however the human influence is obvious here too as a result of the marked field boundary pattern as well as geometrical forestry blocks and some onshore wind farm development across higher ground.		
	The depth of the mountain views increases further round the view to the south-east and south where SNP extends furthest in these directions. Beyond the mountains to the north and from the south-west round to the west the elevation of the land drops markedly to a settled, agricultural coastline where the seascape is a more prominent component of the views in these directions than is the case in the views north.		
	Value of view: High		
	Located within the SNP		
	Visited by very large numbers of people.  LANDMAP visual and sensory evaluation – Outstanding  Susceptibility to change: Medium-high		
	The majority of viewers at this viewpoint are people walking to experience the views and landscape from the summit as well as attaining the summit as part of a personal challenge or for exercise. Viewers are transient but may spend some limited time near the summit to appreciate the views and refresh after the climb. However, the exposure and at some times the volume of		



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	people will often reduce the likelihood of people staying on the summit for long periods.		
	This viewpoint is located in an area identified as Undisturbed in the Tranquillity Classification (2009), however, notably there is often limited sense of tranquillity or peacefulness associated with views from the summit of Snowdon.		
	The susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance as well as being separated by a considerable depth of highly characterising mountain landscape. In addition, there is some wide spread influence of human intervention within the landscape that surrounds SNP some of which is visible from this Viewpoint.		
	<b>Sensitivity: High-</b> taking account of the assessed high value of the viewpoint and the medium susceptibility to the proposed change to it.		
36: Tal y Fan	Located within the Northern Uplands LCA.  This viewpoint is located near the summit of Tal y Fan (610m AOD) within the northern part of SNP and is relatively accessible through open access land and along PRoW from the north and south, although the routes are not well worn or generally way marked.	Construction/ Decommissioning: Negligible to Medium-low  Activity within array area at 23 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or of limited extent – Negligible.	Construction/ Decommissioning  Minor (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.
	Tal y Fan is an outlying summit of the Carneddau mountains and is the most northerly summit over 2000 ft (defined as a Marilyn) in Wales.  The elevation ensures panoramic views of the surrounding	Visibility of WTG as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance.	Moderate effect (Non-significant), adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.
	elevated landscape all of which include a rugged foreground and a middle ground that is within the SNP.	Operation (MDS A): Medium-low  Movement and structures of 34 WTGs visible as	Operation (MDS A)
	To the north the views extend out over rugged, grass and heather moorland covered, undulating landform to include the	prominent elements within the seascape, close to the horizon at a distance of 23.2 km.	Moderate effect (Non-significant), adverse, long term,
	seascape. To the north-west this is contained by Conwy Bay and the eastern coast of Anglesey with Penmon Point and Puffin Island extending out into the sea. In the north-east this includes	2 OSPs just visible amongst these. WTGs visible across approximately 23 degrees of the seascape near the horizon seen as an	reversible.  Likelihood of effect



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	the Great Orme and the extensive coastal settlement around Llandudno, Llandudno Junction and Conwy set around areas of lower landform and the valley of the River Conwy. The development features within the views to the west and north, which include pylon mounted transmission lines and mine workings are more apparent from the actual viewpoint (and approaches to it) than they appear in the baseline photographs.  To the south-east the upland areas of SNP merge with the	extension to and in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs of GyM.  The WTGs extend across the seascape behind the Great Orme and to either side of it. It is clearly part of the seascape backdrop and a separate entity to the Great Orme.  The OWF is largely associated with parts of the view that have apparent development	Requires Very Good or Excellent visibility.  Visibility frequency at this range: 64%.  Occurs most frequently in Summer.
	agricultural landscape of the valley of the River Conwy on the lower slopes.  To the south the summits of SNP extend to the horizon as layers of irregular ridge lines. The most distant high peak visible is Carnedd Llewelyn with the closer Foel Fras appearing taller. These mountains to the south are perceived to be remote and undeveloped compared with the landscape to the north.  Value of view: High	characteristics over a wide area and it sits beyond the Great Orme and the developed coastline of Llandudno.  It does not encroach on the less developed, more remote uplands of the SNP which form a large part of the remaining panoramic view and characterise a large extent of the foreground and middle ground of the views towards the	
	Located within the SNP	array area. This relationship maintains the contrasting character and wide range of	
	LANDMAP visual and sensory evaluation - high  Susceptibility to change: Medium-high  Receptors are people walking with a focus on reaching the	characteristics of the views from this summit location which are markedly less developed in other directions.	
	summit for exercise and to obtain the expansive views visible from the summit. They are transient so views from this location will be relatively short in duration although people may move slowly and pause at the summit.	This, along with the existing development influences and large scale and expansiveness of the sea views increases the capacity of the baseline view to accommodate AyM.	
	This viewpoint is located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance and current outlook towards the AyM array area contains many	WTGs appear smaller in height compared to the most prominent landform of the Great Orme, however the operational turbines and buildings at Llandudno and on the Great Orme itself provide scale comparisons that indicate the large size of the WTGs.	
	development features, including operational OWF.  Sensitivity: Medium-high - taking account of the assessed high value of the viewpoint and the medium susceptibility to the proposed change to it.	View of WTG MDS A arrangement relatively consistent across the array area although there is	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		some 'stacking' of WTGs where they align along the westerly rows.	
		Mitigation measures	
		As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced its horizontal extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
38: Foel-fras	Located within the Northern Uplands LCA.	Construction/ Decommissioning: Negligible to	Construction/ Decommissioning
	Foel-fras is a mountain in the Carneddau range, about 10 km east of Bethesda in North Wales. It lies on the border between the counties of Gwynedd and Conwy. It has a distinctive domed, convex form and with its height rising to 942m it is officially the eleventh highest peak in Wales. Foel-fras is located	Medium-low  Activity within array area at 28.4 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or of limited extent – Negligible.	Minor (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.
	at the northern end of the main ridge of the Carneddau, between Drum to the north and Foel Grach to the south, with the subsidiary summit of Garnedd Uchaf between it and Foel Grach. Due south and 400 m below lies the reservoir of Llyn Dulyn, while the smaller reservoir of Llyn Anafon lies to the north.	Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium-low.	Moderate effect (Significant), adverse, short-term temporary during latter stages of construction phase and early
	Because of its position, it is the first of the Welsh 3000s reached	Operation (MDS A): Medium-low	stages of decommissioning.
	when approaching along routes from the north coast and provides widespread panoramic views from the broad, rocky summit and trig point.	Movement and structures of 36 WTGs visible as prominent elements within the seascape, close to the horizon. 2 OSPs visible amongst these.	Operation (MDS A)  Moderate effect (Significant), adverse, long term, reversible.
To the north-west views include the upper parts of lower summits with the Traeth Laffan and Conwy Bay bellow. Beyond this the, relatively flat, settled landscape of Isle of Anglesey is seen extending right to its northern coast with its markedly indented eastern and western coasts also visible, including Penmon Point and Puffin Island to the east. These are seen to extend out into	WTGs visible across approximately 23 degrees of the seascape near the horizon seen as an extension to and in the vicinity of existing, but apparently smaller and more densely spaced, operational WTGs of GyM.  The WTGs extend across the seascape behind the Great Orme and to either side of it. They are	Likelihood of effect Requires Good, Very Good or Excellent visibility.  Visibility frequency at this range: 54%.  Occurs most frequently in	
	the open seascape in the north part of the view. To the north the upland landform extends to the lower edge-summits of SNP and those that are not included within the designated area due to the quarries seen on the intermediate horizon. The notable	separated from it by a swathe of open sea.  The eastern part of the AyM OWF is largely associated with parts of the view that have	Summer.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	forms of Foel Lus and Conwy Mountain are partially seen beyond intervening high ground with the walled enclosed fields on the slopes of Foel Lwyd and the relatively flat summit of Tal-y-Fan see at closer range further to the east. These are seen against a backdrop of settled, undulating landscape and the seascape containing the distinctive landform of the Great Orme which prominently extends out from the coast via an isthmus where Llandudno is located between this and Little Orme. he rocky summit, as well as elements of built development are visible on the Great Orme at this range. To the east of the Great Orme the operational OWFs are visible within the seascape. Rhyl Flats OWF is seen at closest proximity with GyM extending across a wider horizontal extent at a greater distance beyond. North Hoyle OWF was also visible at a distance of 40 km in these exceptional weather conditions and from this lower elevation with the more distant Burbo Bank Extension OWF difficult to pick out from the seascape backdrop. These OWFs are seen set back from a coast where there is a strong presence of built development set between low hills and farmland.  The prominent linear feature of the tall, stone wall that crosses the summit of Foel-fras comes into the view further east. This along with parts of the very rocky, broad summit itself obscures some of the more dramatic, mountainous skyline of SNP to the north. Carnedd Llwelyn appears as the tallest summit on the skyline beyond a number of intervening summits.	apparent development characteristics and it sits beyond the Great Orme and the developed coastline of Llandudno. The western part of the AyM array area is seen set back from the less developed coastal edge hills of SNP with a broader expanse of seascape separation.  The AyM OWF would be seen in a distinct part of the setting of this view which includes separating seascape and a fore and middle ground of SNP uplands.  These factors, along with the existing development influences and large scale and expansiveness of the sea views increases the capacity of the baseline view to accommodate AyM. The WTGs of the AyM OWF appear similar in height compared to the most prominent landform of the Great Orme, and this, along with the operational OWF WTGs and buildings at Llandudno and on the Great Orme itself provide scale comparisons indicating the large size of the AyM WTGs.  View of WTG MDS A arrangement relatively consistent across the array area although there is some alignment of and marked spacing between the westerly rows.  Mitigation measures	
	Value of view: High		
	Located within the SNP.	As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced	
	LANDMAP visual and sensory evaluation - high	its horizontal extents within the view as well as the	
	Susceptibility to change: Medium-high	WTG numbers. Whilst this has resulted in a	
	Receptors are people walking with a focus on reaching the summit for exercise and to obtain the expansive views visible from the summit. They are transient so views from this location will be relatively short in duration although people may be slow	reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	moving and pause at the summit, although the jagged rocks there may make this less likely to be the case.		
	This viewpoint is located in an area identified as Undisturbed in the Tranquillity Classification (2009).		
	Susceptibility is moderated by distance to AyM array area of 28.4 km and current outlook towards the AyM array area contains many development features, including operational OWF.		
	<b>Sensitivity: High -</b> taking account of the assessed high value of the viewpoint and the medium-high susceptibility to the proposed change to it.		
40: Above Capelulo –	Located within the Northern Uplands LCA.	Construction/ Decommissioning: Negligible to	Construction/ Decommissioning
North Wales Path	This viewpoint is located on the North Wales Path LDR on the high ground to the east of Capelulo. It can be accessed most easily from the south where there is parking along Sychnant Pass Road or from a wide network of PRoW including links to the Wales Coast Path to the north.	Medium  Activity within array area at 19 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or of limited extent – Negligible.	Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning
	This viewpoint is not on a hill summit but is an incidental view that may be gained by walkers on this w way-marked route. The immediate context of the viewpoint is the diverse rock and grass/ heather covered slopes of the hillside. There are three	Visibility of WTG as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance.	phase.  Major-Moderate effect (Significant), adverse, short-term temporary.
	main peaks visible with Allt Wen located at closest proximity to the north-north-west, Penmaen-bach in the centre to the north and Conwy Mountain to the north-east. Parts of the hill forms are very steeply sloping and distinctive in their form.  There is some subdivision of the hill area by dry stone walling	Operation (MDS A): Medium	Operation (MDS A)
		Movement and structures of 34 WTGs visible as prominent elements within the seascape, close to the horizon at a range of 19.1 km. 2 OSPs	Major-Moderate effect (Significant), adverse, long term, reversible.
		visible amongst these.	Likelihood of effect
	which is seen to snake over the ridges, along with the defined path routes which contrast with the dark landcover. There are also pockets of improved pasture apparent in the lower lying	WTGs visible across approximately 27 degrees of the seascape near the horizon seen as an	Requires Good, Very Good or Excellent visibility.
areas. The view inc	areas. The view includes a pole mounted transmission line.  The outlook from the summit is panoramic and diverse. Views	extension to and in the vicinity of existing, but apparently smaller and more densely spaced,	Visibility frequency at this range: 75%.
	over the seascape occur over approximately 120 degrees of	operational WTGs of GyM.  The WTGs extend behind the Great Orme and parts the WTG towers are obscured behind it, so	Occurs most frequently in Summer and winter.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	the field of view. However, intervening hill forms as well as Great Orme and Llandudno Bay break up the expanse.  The Great Orme and the seascape beyond it where the AyM array area site is located are visible between the hill forms of Penmaen-bach and Conwy Mountain.  Operational offshore wind farms likely to be apparent as part of seascape to east of Great Orme during Good, Very Good to Excellent visibility conditions to north-east at a minimum range of 17.6 km to Rhyl Flats.  GyM OWF and Burbo Bank and Extension OWF are visible close to the sea horizon but the Rhyl Flats OWF is seen at closer proximity beyond Little Orme.  The views include settlement at Llandudno Junction and along the edge of Penrhyn Bay.  At this range development is also seen extending around the lower western side slopes of the Great Orme at Gogarth and up onto higher ground from the south. The summit complex as well as other buildings associated with the various visitor attractions are also visible.  Views to the south are constrained by the rising ground within SNP.	that they appear to sit upon the summit. However, the AyM array area extends further east so that its location out at sea is readily understood.  AyM would be largely associated with parts of the view that have some degree of apparent development characteristics and it sits partly beyond the Great Orme and in a similar part of the view to the developed area at Llandudno Junction. It is slightly separated from the intervening hill summits where there are some limited human influences.  It therefore does not encroach on the less developed and more remote landscape of the SNP, which form a large part of wider view and foreground.  WTGs appear smaller in height compared to the most prominent landform of the Great Orme, however the operational turbines and buildings at Llandudno and on the Great Orme provide scale comparisons that indicate the large size of the WTGs.	
	Value of view: High  Located within the SNP  LANDMAP visual and sensory evaluation - high  Susceptibility to change: Medium-high  Receptors are people walking with a focus on moving through the landscape for exercise and to obtain the varied views from along the route. They are transient so views from this location will be relatively short in duration although people may be slow moving. There are no features or a summit in this section of the route to encourage stopping.  This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).	These factors, along with the large scale and expansiveness of the sea view backdrop increases the capacity of the baseline view to accommodate AyM.  View of WTG MDS A arrangement relatively consistent across the array m area although there is some 'stacking' of WTGs where they align	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance and current outlook towards the AyM array area contains development features, including operational OWF, transmissions lines and buildings.	reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
	<b>Sensitivity: High -</b> taking account of the assessed high value of the viewpoint and the medium-high susceptibility to the proposed change to it.		



## Wales Coast Path Section I - Conwy Mountain

## Baseline description and sensitivity

- 662 This 16 km section (see Figure 19, Annex 10.4) is the inland route between Llanfairfechan and Conwy. Diverging from the coastal route at the Village Road/ Penmaenmawr Road junction the path leaves Llanfairfechan along Park Road and through Penmaen Park. It runs along the western and then the southern slopes of the hills of Penmaenmawr and Graiglwyd, both of which are extensively quarried although this is not readily apparent from the route. Heading east the path traverses a relatively flat area where the views north are foreshortened by these separating hills and the wider views are gained to the south towards the rising slopes of Tal y Fan in SNP. Views northwards to Penmaenmawr and the landscape/ seascape beyond are possible along the steep valley between Graiglwyd and Ffridd Wanc where a PRoW connects from the town. There are several PRoW including the North Wales Path LDR connecting into this upland section of the route. This section of the WCP also has several relicts of cultural heritage interest, one of which is the stone circle where Viewpoint 37 is located and from where views such as this can be gained.
- Thereafter, the route skirts around low hills northwards past farm properties to a point where it meets the small car parking area at the top of Mountain Lane. From there the route traverses round the steep slopes of Foel Lus which provides open expansive views across Colwyn Bay and beyond as illustrated by Viewpoint 60: Foel Lus.
- Descending steeply to Dwygyfylchi, the WCP follows Conwy Old Road from the junction with Treforris Road leaving the road to ascend Conwy Mountain from Capelulo via Sychnant Pass. Elevated parts of this section allow northerly views to Conwy Bay framed by Anglesey and Great Orme and north-eastwards over the settled area to Llandudno Bay beyond as illustrated by Viewpoint 12: Conwy Mountain (Annex 10.6). Descending to join Mountain Road west of Conwy, the section eventually merges with the coastal route at Moffat Drive.



- This inland section is largely rural and hilly. It climbs steeply from Llanfairfechan to follow the hilltops behind Penmaenmawr. Descending sharply to Dwygyfylchi, the section then rises through Sychnant Pass along the southern edge of Penmaen bach and Conwy Mountain descending gently to Conwy.
- 666 OWFs are visible as part of the seascape context to the north-east beyond Llandudno Bay and the Great Orme.
- No parts of this section of the WCP are classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b (Annex 1-.4).
- 668 **Value of views: High**. The section round and east of Foel Lus is located within SNP. The western section runs close to the boundary of SNP, which forms a key part of its setting to the south.
- Susceptibility to change: Medium-high. People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods, although they may be slow moving.
- Views out to sea are intermittent along this section of the WCP. Where they are possible, they are across a foreground of coastal areas that extensively developed. This is quite complex to the north/ north-east across Conwy, the River Conwy, Great Orme and Llandudno Bay.
- Views out to sea are broadly channelled to the north by landform out across Conwy Bay between Puffin Island and the Great Orme.
- Susceptibility is moderated by the distance of 16-23 km from the AyM array area and the partially urban influence in views toward the AyM array area from the path.
- **Sensitivity to change: High** taking account of the assessed high value of the views and the medium-high susceptibility to the proposed change to them.



- Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the route. This shows theoretical visibility of parts of 29-34 turbines across some, mostly eastern parts of the route. Actual visibility is likely to be similar to theoretical visibility due to a general lack of above ground features except from the sections close to Llanfairfachan, Dwygyfylchi and Conwy where the route is ascending or descending past houses and through trees/ woodland. From there, actual visibility of the AyM OWF is likely to be intermittently screened.
- Theoretical visibility occurs for a 1 km section of the route in the vicinity of Viewpoint 37. To the east theoretical visibility is limited by the nearby hills except for along some very short sections where small numbers of WTGs may be visible. Clear and continuous visibility towards the AyM OWF would occur from a section of approximately 1.5 km to the west and north of Foel Lus and where the path descends towards Dwygyfylch and views become intermittently screened by intervening trees and buildings.
- There after there is a section through the Sychnant Pass as the route ascends the southerly slopes of Conwy Mountain where there is no theoretical visibility. Thereafter the route ascends onto the ridgeline where there is shown to be open visibility for 29-34 WTGs across approximately 1 km of the route in the vicinity of Viewpoint 12 (Annex 10.6).
- Ascending off the route the theoretical and actual visibility reduces for a section of approximately 0.5 km and actual visibility is thereafter further reduced on the lower slopes where it runs to the south of woodland and into the built-up area.
- These occur for approximately the majority of the route except where it runs inland of Penrhyn Castle.
- 679 From these stretches of the route where there is open visibility towards AyM OWF it would be seen above and extending to the side of the Great Orme and beyond Llandudno Bay. Views of the AyM OWF are most likely to be seen by east bound walkers.



- 680 Magnitude of change during construction, operation and decommissioning (MDS A): during early stage construction work/latter stages of decommissioning which is largely below sea surface or of limited extent Negligible.
- Latter stages of construction/ commissioning and early stages of decommissioning **Medium** along the 1.5 km section of the route at Foel Lus and Medium along the 1.5 km section at Conwy Mountain. **Medium-low or no change** elsewhere.

## Significance of effect

- 682 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning.
- 683 Major-Moderate effect (Significant), adverse, short-term, temporary over a combined length of approximately 3 km across the side slopes of Foel Lus and along the ridge of Conwy Mountain. Moderate-Minor effect (Non-significant), adverse, short-term temporary along the other parts of this route.
- Operation (MDS A): Major-Moderate effect (Significant), adverse, long term, reversible over a combined length of approximately 3 km across the side slopes of Foel Lus and along the ridge of Conwy Mountain. Moderate-minor (Non-significant), adverse, long term, reversible along the other parts of this route.
- Any difference between the significance of the effect on viewers using the route and the viewpoints assessed along it is due to the overall experience gained and the transient nature of walkers rather than someone spending a long time to appreciate a certain view.
- Visibility of the AyM OWF is intermittent and would occur for less than half of this section of the route. AyM OWF would be seen in the context of other development features. Other parts of the route would have no visibility of development features or AyM OWF so provide a strong contrast and character to other sections. This varied visual experience is likely to be part of the expectation of walkers using this section of the route. Whilst the AyM OWF intensifies the development characteristics apparent from some sections it does non-significantly alter the experience of the route.



# Effects on landscape character

## LCA 01 – Northern Uplands (Ucheldir y Gogledd)

# Baseline description and sensitivity

- The Northern Uplands (Ucheldir y Gogledd) forms the first significant upland landscape in the northern part of the SNP (Figure 16, Annex 10.5). It includes a series of peaks Moel Wnion, Drosgl, Foel Ganol, Pen y Castell, Drum, Carnedd Gwenllian, Foel Fras (Viewpoint 38, Annex 10.6) Tal y Fan (Viewpoint 36, Annex 10.6) and Conwy Mountain (Viewpoint 40) rising between 600 and 940m AOD. The area extends from Bethesda (which is located outside the National Park boundary) in the west to the western flanks of the Conwy valley in the east. It also encompasses the outskirts of Conwy to the north to form an immediate backdrop to the coast.
- This is part of a complex, internationally renowned, geological and geomorphological landscape, with a mixture of igneous and sedimentary rocks shaped by ancient earth movements and exposed and re-modelled by glaciation.
- 689 The LCA includes dramatic and varied topography. It rises up steeply from the Conwy coast at Penmaen-bach Point to form a series of distinctive coastal edge mountains with the highest at Foel Lus (362m AOD, night-time Viewpoint 60). The range extends to the south, with the mountains gradually rising in stature and peaking at Foel-Fras (942m AOD). Foothills drop down from the mountains to form a more intricate landscape to the east and west.
- down hanging valleys as waterfalls where they are often visitor attractions (e.g. Aber Falls). U-shaped valleys are found where glaciers have carved through the mountains, often with extensive moraine and head deposits. The LCA contains reservoirs at Llyn Anafon, Dulyn, Melynllyn and Llyn Eigiau.



- Woodland cover is relatively sparse across the more elevated parts of the LCA. However, small bands of woodland and spinneys are associated with the lower-lying farmland and valley sides. These include nationally designated native woodlands at Coedydd Aber, Coed Merchlyn, Coed Gorswen and Coed Dolgarrog. There are also prominent forestry blocks on the lower slopes of Llwytmor Bach and at Parc Mawr.
- The central area of the LCA is formed by a series of large-scale, unenclosed mountains. This large-scale and simple landscape of overlapping peaks contrasts with smaller scale, more complex landscape of the historic field patterns on the foothills. The mountains are uninhabited with large areas of open access land and a sparse network of rights of way (but no road access). Stone boundary walls are often seen traversing across steep slopes of the mountains. The intermediate area, defined by large, regular enclosures of ffridd, provides valuable cultural and natural links between the uplands and their surrounding lowlands.
- Rough, common land is grazed by sheep on the mountains and on lower lying land by Welsh ponies. Enclosed, pastoral fields are divided by stone walls or hedgerows, often with frequent hedgerow trees.
- The LCA is host to internationally important montane habitats and species within the Eryri SAC/ SSSI, including rare arctic-alpine plants, montane heaths, cliff ledges and wetlands. Wet and sessile oak woodlands found within the Coedydd Aber SAC/ SSSI/ NNR, linking the mountains to the north coast. Sychnant Pass SSSI, in the north-east of the LCA, comprises dry heath, acid grassland, bracken, marshland, ponds and streams providing a naturalistic backdrop to the nearby Conwy Estuary.
- 695 Within this LCA there is a wealth of nationally important archaeological features including Bronze Age funerary and ritual monuments (for example standing stones at Bwlch y Ddeufaen), prominent Iron Age hillforts (e.g. Maes y Gaer and Dinas) and evidence of early settlement, field systems and transport routes (e.g. the Roman road passing through Bwlch y Ddeufaen and 11th century Aber Castle).



- 696 More recent evidence of past land uses is found throughout the LCA in the remains of 19th and 20th century slate quarrying, including disused quarries and tips.
- The lower slopes around the west, north and east of the upland areas of the LCA are characterised by improved, enclosed pasture and scattered settlement with minor tracks and roads providing access. Woodland areas and hedges/ hedgerow trees are more frequent with some vertical, slate fence boundaries.
- There are several pylon mounted transmission lines that cross the LCA. They pass from north of Llanllechid in the west, across the north of the Coedydd Aber National Nature Reserve, along the route of the North Wales Path eastwards to where it crosses between the uplands for Bwlch y Ddeufaen and Foel Lwyd and then south-east to Tal-y-bont.
- occupies a sheltered location on the banks of the River Aber. This was a strategic starting point for travellers crossing the Menai Strait using the ancient crossing point of the Lafan Sands to Anglesey. The village of Llanllechid (also a Conservation Area) straddles the National Park boundary in the western foothills.
- 700 The mountains of Snowdonia form a dramatic backdrop to the nearby coast and seascape (including the A55 coast road) frequently characterising views from Anglesey, the Menai Strait and the Conwy coastline.
- 701 From within SNP there are long views available north across the coastline, out to sea, north-west to the Isle of Anglesey and east across Conwy and Denbighshire where onshore wind farms are visible on the upland area to the east of the Vale of Conwy. The OWFs in the Irish Sea are visible features within the seascape to the north-east adding elements of human influence to views. Views south are contained by the higher mountains of the Carneddau Range.
- The influence of external landscapes, seascapes and development from within the LCA is varied across this large area. This is largely connected with landform and proximity to the contextual areas.



- The northern area hills are strongly influenced by the more widespread development and coastal areas as well as the seascape to the north. The edge hills provide vantage points and north facing slopes but also provide some visual and physical separation of the coastal area from the rest of the LCA further south.
- The western part of the LCA is more strongly influenced by views across Gwynedd, Conwy Bay, the Isle of Anglesey and the seascapes beyond to the north and north-west. Large scale quarries are also visible in closer range, more notably developed Gwynedd.
- The eastern parts of the LCA are most influenced by the settled farmland and hill areas to the east where there are several onshore wind farms as part of the views.
- The southern and central parts of the LCA are higher, have stronger characteristics of remoteness, scale and upland landscape features and tend to be less influenced by development features within the surrounding areas. This is due to the strength of the inherent character as well as the geographical separation from the majority of these features both physically and visually as a result of distance and landform. These areas are also more widely influenced by the more markedly upland areas to the south within the SNP.
- Parts of this LCA are a highly tranquil, relatively remote landscape with few modern intrusions and a pervading relative wildness quality associated with the mountains. There are some incidences of human influence both within (pylon lines, reservoirs with dams, access tracks and stone walls) and as part of the wider setting of the LCA (including road infrastructure, large quarries, extensive settlement, onshore wind farms and OWFs) that reduce the sense of remoteness, tranquillity and wildness characteristics to some degree through their visibility. However, the strong sense of the inherent characteristics of the largely undeveloped upland, moorland landscape and mountains ensures that the wider human influence on the character of the LCA is minimised with the contrast in character being part of its quality.



- Internal areas of the LCA are classified as 'Undisturbed' in the Tranquillity Classification (2009) as shown on Figure 10.b. Excluded peripheral areas are buffers to the main routes along the coast and to the west and east of SNP as well as around small settlements. A buffer along the pylon mounted transmission lines recognises their detrimental influence on factors of tranquillity. The buffers around the development features within the landscape and seascape are relatively small geographically defined areas and do not take into account the potentially more widespread influence that results from visibility of these features within areas classified as Undisturbed.
- 709 **Value of the landscape character: High.** The LCA is entirely within Snowdonia National Park.
- 710 The LCA lies within an area that is largely defined in the LANDMAP dataset Visual and Sensory Evaluation as being High with a small area in the east identified as being Moderate (see Figure 9, Annex 10.4).
- Susceptibility to change: Medium. The LCA is a rural, upland area with relatively high levels of tranquillity and relative wildness, which are most evident in the internal, southern area of the LCA around Viewpoint 38 (Annex 10.4). There is relatively little in the way of development characteristics. This is with the exception of in the vicinity of the pylon lines and areas around the LCA's western, northern and eastern slopes and foothills where there is a higher level of human influence both directly and within the wider setting as part of the LCA's context.
- The coastal parts of the LCA are exposed to the seascape to the north with the coastal areas to the north having panoramic views over the Irish Sea and the landforms that form the complex coastal diversity and subdivision by headlands into separate bays. Views out to sea towards the AyM array area from the LCA tend to contain some development influences including OWFs.
- Susceptibility is moderated by the distance to the AyM array area of 16.5-37 km and the strength of the inherent characteristics that define this upland LCA.



714 **Sensitivity to change – Medium-high** - taking account of the assessed high value of the landscape and the medium susceptibility to the proposed change to it.

- 715 Figure 16b (Annex 10.5) illustrates the blade tip ZTV within this LCA. This shows theoretical visibility of parts of 29-34 turbines across the north and north-east facing slopes and upland summits and ridges and eastern and north-western areas of the LCA. This marks a reduction from 41-48 turbines visible at the PEIR stage in response to stakeholder feedback. The area shown to have any theoretical AyM WTG visibility equates to 42% of the LCA at ranges of 16.5 to 33 km.
- 716 Viewpoints 12, 36, 38, 39, 40 and 60 (Annex 10.6) illustrate the baseline character of views and the visibility of the AyM OWF (MDS A).
- 717 The assessments for Viewpoints 12, 36 and 40 have assessed the magnitude of change in views as Medium or Medium-low. The lower levels of development characteristics and higher relative wildness/tranquillity at found at Viewpoint 38 is a consideration. The greater distance of 28.4 km is however, also a factor.
- The northerly areas of the LCA are those that are at closest proximity to the AyM array area and the higher levels of magnitude of change in views as a result. Viewpoints 12, 36, 39, 40 and 60 demonstrate this. These areas generally coincide with areas where there is the strongest existing human influence on character through visibility of existing development which is detrimental to the qualities of tranquillity, remoteness and wildness. The further impact on the characteristics of these areas through the introduction of AyM OWF as part of their setting would not result in a marked change to their character.

- There are shown to be areas of theoretical visibility on the hill summits to the east of the LCA above the Vale of Conwy, which include Moel Eilio and Cefn Cyfarwydd at a similar range (28.5 km and 31 km respectively) to the AyM array area as Viewpoint 38 Carnedd Llewelyn but at considerably lower elevations. However, such views have views of the existing OWFs beyond a coastal context that is markedly developed. Visibility towards the AyM array area from such areas in the east of the LCA have as part of their baseline context more widespread influences from the landscapes to the east, which include onshore wind farms along with contrasting and dramatic views to the west and south-west into the core uplands of the SNP. Although there is visibility of AyM OWF from these locations this is at a considerable distance and as part of a context that contains many different influential features.
- There are areas in the western part of the LCA that are within the ZTV. These include the summits and north-facing slopes of Ffridd Ddu and Moel Wnion at ranges of 27 km and 28.5 km respectively. Visibility towards the AyM array area from such areas in the west of the LCA have as part of their baseline context more widespread influences from the landscapes/ seascapes to the west and north-west along with contrasting and dramatic views to the east and south-east into the core uplands of the SNP. Although there is visibility of AyM OWF from these locations this is at a considerable distance and as part of a context that contains many different influential features including, in most instances, the developed coastal strip as part of the foreground and pylon mounted transmission lines running through the area between these summits.
- 721 It is considered that the inherent and contrasting characteristics of the largely undeveloped, mountainous and upland moorland area further to the south (Viewpoint 38) would remain predominant over any external characterising influences arising only from visibility as part of a wider context that contains many and varied features.



- Notably more than half of the LCA has no theoretical visibility of the AyM OWF. The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCA is generally likely to be lower than is identified for a viewpoint. This is the case in the assessment of the effects on much of this LCA where it is considered that the strong inherent character of the LCA, which is largely informed by the features and patterns of elements within the geographical extent of the LCA itself and make it distinctive from other parts of the landscape, will remain predominant.
- The parts of the LCA that lie to the north are most likely to be affected by AyM OWF due to its closer proximity and strong visual relationship. However, this area is also the part of the LCA where the external views (which include development and operational OWFs as well as the coastal landforms including the Great Orme) already have a greater influence on the character of the LCA than is the case for other areas.
- 724 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to no change during early stages of construction and latter stages of decommissioning, otherwise Medium-low to No change.

# Significance of effect

- 725 Construction, Decommissioning: Minor to Moderate effect (Non-significant), adverse, short-term temporary.
- 726 Operation (MDS A): Moderate effect (Non-significant), adverse, long term, reversible.

# LCA 02 - Carneddau Range (Y Carneddau)

# Baseline description and sensitivity

727 This is a smaller, upland landscape when compared with LCA 1 to the north. It is situated between the A5 road and the Northern Uplands (LCA 1). It is bounded to the west by the distinctive U-shaped valley of Nant Ffrancon, and to the south by the Afon Llugwy and A5. The wooded LCA 06 lies to the east.



- The LCA is dominated by the Carneddau mountain range, in particular Carnedd Llywelyn, the second highest peak in Snowdonia at 1,064 metres AOD (Viewpoint 10, Annex 10.6) and part of a long north to south running ridge of peaks that extend north into LCA 01 and include Foel Fras (Viewpoint 38). It is also part of a horseshoe formation that includes the smaller peaks of Carnedd Dafrdd, Pen yr Helgi Dy and Pen Llithrig y Wrach.
- 729 This is a complex, internationally renowned, geological and geomorphological landscape, underlain by volcanic deposits with a series of fault trended valleys. The LCA has significant evidence of glaciation, including corries (cymoedd), hanging valleys, deposits of boulder clay within valley floors, scree and moraine. Cwm Glas Crafnant NNR and Cors Geuallt SSSI are designated for their glacial features.
- 730 The U-shaped valley of Nant Ffrancon forms a prominent landform feature with multiple streams draining from the mountains into the Afon Llugwy and Nant Ffrancon below with the valleys facilitating the route of the A5.
- Caseg and Ffynnon Llyffant and the reservoirs of Llyn Cowlyd and Ffynnon Llugwy.
- The LCA is a largely treeless and open landscape, with woodland cover limited to scatterings of ash trees on the slopes of Craig Wen. The mountain summits are open and used as common land grazing by sheep. The upper slopes are surrounded by large, regular enclosures of ffridd with semi-improved pastures and rough grassland fields on lower slopes. Smaller scale fields define the broad valley floor of Nant Ffrancon
- 733 The LCA is host to internationally important montane habitats and species within the Eryri SAC/ SSSI (covering the whole LCA), including rare arctic-alpine plants, montane heaths, cliff ledges and wetlands. These are interspersed with areas of bracken and acid/ marshy grassland.



- Also included within the LCA is land within the Ogwen Valley Landscape of Outstanding Historic Interest, displaying evidence of prehistoric land use (funerary and ritual sites) and the industrial exploitation of slate in 19th and 20th century.
- The LCA is primarily an unsettled landscape, with buildings limited to small clusters of slate-built cottages and hamlets along the A5. The A5 road corridor follows an historic, scenic route through this northern gateway into the wider National Park. There is no road access into the mountains, but much of the area is open access land with a small number of defined footpaths providing access (from minor roads and parking areas) along valleys and onto the high peaks.
- The mountains have a strong sense of remoteness and wildness characteristics and overall strong perceptions of tranquillity which are eroded locally by the A5, as well as tourist-related developments in the Llugwy valley and around Llyn Ogwen and Rhaeadr Ogwen waterfall. This is reflected in the Tranquillity Classification (2009) shown on Figure 10b, which shows the central upland parts of the LCA classified as Undisturbed.
- Panoramic views from the mountains, including north to sections of the developed coast and settled landscape and seascapes of Gwynedd, Conwy and Anglesey, where OWFs are visible, and south towards the Snowdon massif. Onshore wind farms are visible to the east of the LCA in Conwy and Denbighshire and there are views of large-scale quarries to the west.
- Views across this LCA as well as from it are also considered within the SNP management plan and character assessment to be important.
- 739 **Value of the landscape character: High.** The LCA is entirely within Snowdonia National Park.
- 740 The LCA lies within an area that is largely defined in the LANDMAP dataset Visual and Sensory Evaluation as being High in the north and Outstanding to the south except for close to the A5 (see Figure 9, Annex 10.5).



- 341 Susceptibility to change: Medium-high. The LCA is a rural, upland area with high levels of tranquillity and relative wildness. There is relatively little in the way of development characteristics within the LCA itself. This is with the exception of the A5, tourism development in the Llugwy valley and around Llyn Ogwen and Rhaeadr Ogwen. There is also and more distant visibility of development in the wider context including views across the lowland settled areas to the north-west and east, OWFs to the north, onshore wind farms to the east and a large quarry to the west.
- 742 Views from the mountains are dominated by overlapping, rugged high peaks and ridgelines. There is a sense of awe and exposure attached to their elevation but also resulting from their relative inaccessibility and perceived isolation from the surrounding area, which reinforces their inherent characteristics.
- The AyM OWF would be seen only from the highest parts of the LCA on the summits and high ridges. It would be seen over a considerable depth of upland and coastal landscapes which provide a strong sense of separation from the AyM array area.
- Susceptibility is moderated by the relationship of the AyM array area to the viewpoint at a distance of 30-35 km and the strength of the characteristics that define this upland LCA.
- 745 **Sensitivity to change High** taking account of the assessed high value of the landscape and the medium-high susceptibility to the proposed change to it.

- 746 Figure 16b (Annex 10.5) illustrates the blade tip ZTV within this LCA. This shows theoretical visibility of parts of 29-34 turbines across the upper slopes, summits and ridgelines in the north of the LCA; this marks a reduction from 41-48 turbines visible at the PEIR stage in response to stakeholder feedback. The area shown to have any theoretical AyM WTG visibility equates to 9.4% of the LCA.
- 747 Viewpoint 10 (Annex 10.6) illustrates the baseline character of views and the visibility of the AyM OWF (MDS A) from this location on the highest summit in the Carneddau range at a distance of 32.4 km.



- The assessment for Viewpoint 10 has assessed the magnitude of change as Medium-low. The lower levels of development characteristics and higher relative wildness/ tranquillity found at Viewpoint 10 is a key consideration, however the relatively limited locations within the LCA that would gain such visibility are a key factor in determining its overall character influence.
- There would be very few locations to the south of the LCA from where it would be possible to see the AyM OWF in the same part of a view as the mountains of the LCA. The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCA is generally likely to be lower than is identified for a viewpoint.
- 750 The inherent, upland, mountainous characteristics remain predominant.
- 751 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to no change during early stages of construction and latter stages of decommissioning, otherwise Low to No change.

# Significance of effect

- 752 Construction, Decommissioning: Minor to Moderate-Minor effect (Non-significant), adverse, short-term temporary.
- Operation (MDS A): Moderate-Minor effect (Non-significant), adverse, long term, reversible.

# Effects on seascape character

754 The effect on SCA 3 – Traeth Lafan is assessed in Section 10.11.3.

# SCA 2 - Conwy Bay

#### Baseline description and sensitivity

This SCA (Figure 15, Annex 10.5) lies to the north and the landward area is partially within SNP. The SCA includes the eastern part of Conwy Bay, the mouth of the Conwy estuary and the surrounding coast. Traeth Lafan SCA 3 and Western Conwy Bay lie to the west, Conwy Estuary SCA 1 lies to the south and North-east of Anglesey SCA 28 lies to the north.



- The shallow Conwy Bay and lower land around Llandudno and Deganwy lies where the mountainous topography of Snowdonia tumbles down dramatically to the sea. Rugged higher land, including Conwy Mountain to the south, and the limestone headland of Great Orme to the north-east, encloses the wide sands and intertidal habitats of the sheltered bay. Conwy's estuary mouth features an extensive intertidal area of shifting sand banks influenced by the river Conwy.
- 757 Higher areas are relatively wild, offer some perception of remoteness and are physically quite detached from the urban areas below, although these are generally, at least partially, visible in views out to sea. There are several minor, winding minor roads and numerous PRoW that connect from the urban area up to and through this upland area, including the Wales Coast Path and the North Wales Path.
- 758 Elevated coastal heath covers Conwy Mountain with coastal grassland covering the Great Orme. Farmland, quarrying and settlement are the predominant land uses.
- The area is well connected by an extensive road and rail network. Of particular note are the dualled A55 and the rail line that run close to the shore below the steeply sided landforms that extend close to the coast. The lack of available flat land at the base of the slopes results in a strong interaction between these routes and also with the Wales Coast Path and settlements. This has necessitated the use of structures to allow crossing points where these interactions arise such as tunnel entrances, bridges, retaining structures, steep slopes, underpasses and means that many of the coastal towns are both physically and visual split with only limited areas having a strong association with the coast. In places settlement and tourism development extends up the shallower side slopes.



- Tourism creates a busy feel to the lower part of the Conwy Estuary with tourism development including golf courses, caravan parks, recreational boating facilities, and a marina at Deganwy. The town of Llandudno in the east of the SCA includes the Victorian resort of Llandudno West Shore and its esplanade. Deganwy and Llandudno Junction are extensive settlements to the south of Llandudno and characterise the eastern coastline and mouth of the River Conwy. In the south, Conwy is a medieval walled town with a castle and bridge. In the west, the village of Penmaenmawr is more industrial with terraced housing. Historic harbours, quaysides, and channel beacons reflect a long history of settlement.
- The coastal areas and part of the elevated slopes have views of the sea and enclosing hills and mountains, which provide a dramatic landscape and seascape setting. Magnificent views both inland and over Conwy Bay are available, the curve of the bay contrasting with the more angular surrounding hills. The seascape setting is framed by Penmon Point and Puffin Island in the distance to the west and the Great Orme headland to the east, which alongside Conwy mountain creates a dramatic and distinctive backdrop to the SCA. The seascape area appears expansive and large-scale in panoramic views from elevated viewpoints. The majority of the SCA lies within the Menai Strait and Conwy Bay SAC.
- There is no operational OWF development within this SCA. Operational OWF are visible from parts of this SCA as part of its wider seascape context, as shown on Figure 24: Combined Cumulative Blade Tip ZTV for operational OWF (Annex 10.5). GyM OWF is most prominent from the north of the SCA, whilst Rhyl Flats OWF can be seen over the Llandudno isthmus at closer range from the south of the SCA.
- 763 Cross reference to LCA 01 Northern Uplands (Section 10.11.5) and LCA A8 in Volume 4, Annex 10.3.



- 764 Value of the SCA: High. The seascape itself is not covered by any local or national landscape designations. The small area of sea around the Great Orme is included within the Heritage Coast designation. Parts of the upland landscape that form the southerly coastal components of the SCA are located within the northern edge of SNP and parts of the eastern coastline that cover the Great Orme and the eastern coastal area of the SCA are within the Great Orme and Crueddyn Peninsular SLA. The seascape forms part of the settings of these areas.
- Susceptibility to change: Medium. The SCA is relatively large in scale and simple, it is highly characterised by the adjoining landform and also partially contained by it. There would be no change to the characterising components of this SCA and the AyM array area seems to occur beyond this SCA and the Great Orme, located within the open seascape of SCA 28 and SCA F at a range of approximately 12 km.
- Susceptibility to the AyM offshore elements is moderated by distance and the fact that the seascape is influenced by coastal development including infrastructure and settlement. Visibility of OWF development has some existing influence from parts of it although the scale and location of this relative to the SCA means that it is not a key component of the setting of the SCA, except for from within areas on the east side of the Great Orme.
- 767 **Sensitivity: Medium-high** taking account of the assessed high value of the seascape and the medium susceptibility to the proposed change to it.

# Magnitude of change

There will be no physical change to the character of this SCA, which has innate, strongly defined elements. The only changes are as a result of visibility of the AyM Offshore Elements in views from the SCA as part of its wider setting. The AyM offshore elements will extend and intensify the existing OWF character influence through the introduction of views of up to 34 tall, widely spaced, moving WTGs, a met mast and two OSPs from parts of this SCA during their construction, operation and decommissioning along with additional vessels during construction/decommissioning and during operational maintenance.



- Theoretical visibility of the AyM WTGs (MDS A) from within the SCA is illustrated on Figure 15 (Annex 10.5). It is shown to be widespread across the north-western sea areas of the SCA, which extend west across the bay almost to Puffin Island. Theoretical visibility is also shown to arise on the south-western upland area above Penmaenmawr, which is an area largely excluded from SNP due to its extensive quarry land use, across the northerly slopes of Foel Lus (Viewpoint 60, Annex 10.6) and the ridge along Conwy Mountain (Viewpoint 12). Theoretical visibility is shown to also arise on the Great Orme (Viewpoints 13 and 15). Actual visibility at the viewpoint locations is shown to emulate theoretical WTG visibility.
- 770 Coastal areas between Penmaenmawr and Conwy are shown to have reduced levels of visibility and at lower elevations this is likely to be further reduced due to intervening built form and vegetation.
- 771 Theoretical visibility of 29-34 WTGs is shown across the urban area that extends south of Llandudno Bay to the edge of Deganwy. Actual visibility of the AyM OWFs within this area will be reduced by intervening built development.
- The range of this theoretical visibility is between 11.3 km and 20 km. This will add to the existing OWF influence on the seascape character by extending it further west. The scale of the AyM WTGs when compared with the operational OWFs (where visible) and the Great Orme is relatively large.
- The horizontal and vertical fields of view that they occupy, within views from the coast that are sometimes contained by landform, will mean that they are substantially more prominent in views from the coastal parts of the SCA as is demonstrated by the Viewpoints and this in turn will increase their characterising influence, particularly when viewed in combination with the other OWFs.
- 774 Magnitude of change during construction, operation and decommissioning (MDS A): No change to Low, Medium-Low to Medium.



The Medium magnitude of change relates to the part of the SCA that coincides with the Great Orme. The magnitude of change to the SCA across the upland area between Foel Lus and Conwy Mountain, the low-lying coastal areas and rising land around Penmaenmawr and in the seascape to the north-west would be medium-low as a result of the visual interaction of the AyM array area with a key feature of the SCA, the Great Orme. All other parts of the SCA would be subject to no change or low magnitudes of change.

#### Significance of effect

- Construction, Decommissioning: Minor effect (Non-significant) during early stages of construction and latter stages of decommissioning, otherwise Moderate effect (Significant), adverse, short-term temporary on the upper and northerly slopes of the Great Orme. Moderate effect (Non-significant) across the upland area between Foel Lus and Conwy Mountain, the low-lying coastal areas and rising land around Penmaenmawr and in the seascape to the north-west largely as a result of the existing coastal development influence.
- 777 **Minor to Moderate-Minor effect (Non-significant)**, adverse, short-term temporary elsewhere within the SCA.
- Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible on the upper and northerly slopes of the Great Orme Moderate effect (Non-significant) across the upland area between Foel Lus and Conwy Mountain, the low-lying coastal areas and rising land around Penmaenmawr and in the seascape to the north-west largely as a result of the existing coastal development influence.
- 779 **Minor to Moderate-Minor effect (Non-significant)**, adverse, long term, reversible elsewhere in the SCA.

# Effects on the landscape/ seascape character views and Special Qualities of Snowdonia National Park

The landscape character assessment has identified that the effects on the landscape character within the SNP would be non-significant.



- Seascape character within SCA 2: Conwy Bay is coincidental with SNP where it reaches the coast between Dwygyfylch and Conwy. Significant effects have not been assessed for areas of SCA 2 that lie within the SNP.
- 782 Within the SNP significant visual effects have been identified for the operation of MDS A in relation to the following representative viewpoints:
  - Viewpoint 10: Carnedd Llewelyn Moderate effect (Significant)
  - Viewpoint 12: Conwy Mountain Major-Moderate effect (Significant)
  - Viewpoint 38: Foel-fras Moderate effect (Significant)
  - Viewpoint 40: Above Capelulo North Wales Path Major-Moderate effect (Significant)
  - Within SNP significant visual effects have been identified in relation to the following visual receptors:
- 783 Wales Coast Path Section I Conwy Mountain *Major-Moderate effect* (*Significant*) over a combined length of approximately 3 km across the side slopes of Foel Lus and along the ridge of Conwy Mountain.
- The Special Qualities of SNP that have been assessed in the simple assessment in Annex 10.3 as having the potential to be significantly affected and therefore requiring detailed assessment are as listed below and assessed in Table 10.
  - Diverse landscapes; and
  - Tranquillity & solitude Peaceful Areas.



Table 10: Effects on SNP Special Qualities During Construction/ Decommissioning and Operation.

SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
Diverse landscapes Cynllun-Eryri, The	P29 – "Diverse, high-quality landscapes and seascapes within a small geographic area, ranging	Construction, operation and decommissioning: Negligible, Low to Medium-Low	Construction/ Decommissioning:  Minor to Moderate effect (Non-
Snowdonia National Park Partnership Plan 2020	from coast to rolling uplands to rugged mountains for which Snowdonia is famed.	There would be no physical change to any part of the SNP landscape.	<pre>significant), adverse, short-term temporary.</pre>
	Snowdonia is comprised of a diverse mix of	Any changes to it would be through visibility of	Operation (MDS A):
	landscapes many of which are highly valued for their natural beauty and tranquillity. The National Park is	the AyM OWF as part of its wider setting and diverse landscape/ seascape context.	Moderate-Minor to Moderate effect (Non-significant), adverse,
	renowned for its vast mountainous backdrops, but	SNP covers a total area of 2,133 km <sup>2</sup> .	long term, reversible.
	also offers beautiful and unspoilt valley and coastal settings.	650 km² (30.4%) of this is within the AyM OWF study area.	
	In 2019 Snowdonia was named the most beautiful National Park in Europe.	Within the SNP that lies within the study area 18% of this may have theoretical WTG blade tip	
	There are very few places in the world where it is	visibility as shown on Figure 16b (Annex 10.4).	
	possible to experience all of these environments within such a short distance of each other.	2,012 km <sup>2</sup> or 94% of the SNP would have negligible or no change to the character of its	
	The complex and diverse geology of Snowdonia is the initial reason for the varied landscape and nature		
	within. This geology is a result of millions of years of continental shift, volcanoes, erosion, sedimentation, weathering and other natural powerful forces.	Of the 18% that has theoretical visibility, 2.6% would theoretically have visibility only of blades over landform but not hubs or towers, making the	
	The imprint of the last Ice Age has created vast lakes, waterfalls, wide green valleys, bogs and wild river		
	torrents. Oak, Ash, Rowan and Hazel woodlands are found scattered throughout the area. Upland hill farming and forestry along with the relics of slate mining exemplify the interaction of human and landscape.	Parts of the theoretical blade tip visibility are shown to be across LCA 06 (Figure 16.a, Annex 10.5), which is largely wooded and therefore	
	The beautiful Dyfi, Mawddach and Dwyryd estuaries, along with 23 miles of sweeping coastline and sandy beaches contribute to the overall diversity of our unique and dramatic landscape which has inspired artists, scientists, residents and visitors for centuries".	landscapes around the Dyfi, Mawddach and Dwyryd estuaries or to the numerous valleys and passes between the upland areas	
		The Special Quality specifically notes the importance of the national park's coastline,	



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	P32: "The Sychnant Pass – the northern edge of Snowdonia with views over to Conwy, Llandudno and the famous Great Orme (named after the old Norse word for sea serpent)".	sandy beaches and unspoilt coastal settings as being highly valued and that this coastline extends to 23 km of the SNP boundary.  Notably only 1.3 km of this coastline arises within	
	Value of the Special Quality: High  The Special Qualities are an identified and important feature of the SNP.  The LANDMAP dataset – Visual and Sensory Evaluation - illustrated in Figure 9 (Annex 10.5) shows that the highest areas of land to the south of the SNP are largely categorised as Outstanding whilst small parcels of land, predominantly on the eastern edge of SNP are identified as Moderate. The remaining areas of SNP located within the study area are largely categorised as High.  Susceptibility to change: Medium  There would be no physical change to the Diverse Landscape that are the subject of this Special Quality and the main areas of influence are the northern coast and edge hills of SNP which have existing development as part of their setting and diversity of views.  Susceptibility is moderated by the distance to the AyM array area of greater than 16.6 km with the majority of SNP being considerably more distant with no visual relationship with the AyM array area.  The strength of character within these upland, mountainous areas ensures that their susceptibility to the localised areas with distant views of AyM OWF is limited.  Sensitivity: Medium-high - taking account of the assessed high value of the Diverse Landscapes special quality and	Notably only 1.3 km of this coastline arises within the study area, whilst the remainder is to the west coast where the SNP meets Cardigan Bay.  The 1.3 km section of the coast has an immediate setting which has been highly modified by development uses which include the A55, rail infrastructure, and extensive views of urban development as well as operational OWF.  The wider seascape setting of the northern parts of SNP around the Sychnant Pass are important and scenically attractive with contrasting features of open sea, notable headlands (the Great Orme) and bays that have a strong sense of place.  From within these northerly parts of the SNP the magnitude of change to this special quality would be Medium-low.  These contribute to the diversity of views from this edge of the SNP. However, this diverse seascape also has a high degree of developed coastal and seascape characteristics and it is this context that the AyM OWF would be added, intensifying and spreading the operational OWF characteristics across this part of the setting.  The AyM OWF would be seen from more distant, remote and wild landscapes within parts of the SNP. There are however extensive areas of	
	the medium susceptibility to the proposed change to it.	human influence across the lower edge hills and the lower lying, settled farmland and coastal areas that provide the wider setting to this upland part of the SNP. Views of AyM OWF visibility would occur across a wide expanse of	



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
Tranquillity & solitude – Peaceful Areas	P53 – "The opportunity for people to understand and	upland areas and whilst it would introduce a further degree of human influence within this wider setting the inherent strength of the upland landscape character from where such views may be possible results in this having a Low magnitude of change to such landscapes.  Construction, operation and decommissioning:	Construction/ Decommissioning:
Sources of descriptive materials Cynllun-Eryri, The Snowdonia National Park Partnership Plan 2020	enjoy Snowdonia National Park actively, whilst maintaining areas of silence, tranquillity and solitude, thus promoting vital aspects of health, well-being and personal reflection.  Today many of us live in a world that thrives on being busy, productive and over scheduled. We have become normalised to living in a noisy 'always on' culture. Technology means we are constantly connected and our 'devices' are always nearby, ready to provide us with a constant source of information, entertainment and distractions. Our senses are regularly being bombarded. Naturally occurring periods of tranquillity or silence are increasingly rare and valuable.  Being alone or just having time and space to reflect, is essential for our mental health. Spending time in nature brings a whole host of further benefits. It has been proven to have a therapeutic effect as it relieves stress, it restores attention and the ability to focus. Being active in the outdoors also provides personal challenges that can lead to creative problem-solving and increased self-confidence. It provides the space for people to step back, evaluate problems clearly, resolve difficult issues and to clarify thoughts, hopes, and dreams.  Tranquillity still prevails in many parts of Eryri, both during the day, in its large, remote and rugged	2,012 km2 or 94% of the SNP would have negligible or no change to the character of its Diverse landscape as a result of visibility of the AyM OWF as part of its context.  Of the 18% that has theoretical visibility, 2.6% would theoretically have visibility only of blades over landform but not hubs or towers, making the WTGs less likely to be discerned over long distances and extensive separating landform.	Minor to Moderate-Minor effect (Non-significant), adverse, short-term temporary.  Operation (MDS A):  Moderate-Minor effect (Non-significant), adverse, long term, reversible.  The effect on the special quality of Tranquillity & solitude – Peaceful Areas would be non-significant in the areas in the north of SNP or around Snowdonia where the existing perception of these areas is not generally one of high levels of Tranquillity & Solitude or of Peaceful Areas.  The effect on the less readily accessible and less frequently visited summits around Foel Fras and in the Carneddau Range would be non-significant.



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	mountain ranges; and at night, when the vast, awe- inspiring dark skies are revealed. For the people of Snowdonia and for visitors to the area, Snowdonia provides the ultimate escape, a place to breathe and reset".	Parts of the theoretical blade tip visibility are shown to be across LCA 06 (Figure 16a, Annex 10.5) which is largely wooded and therefore would have no actual visual association with the AyM OWF.	
	Recognition of these benefits is not new  "Thousands of tired, nerve-shaken, over civilised people are beginning to find out that going to the mountains is going home; that wildness is a necessity" (John Muir 'Father of The National Parks' 1838-1914)	The closest area of SNP to the AyM array area and that would have theoretical visibility of it are located in parts of the SNP that Figure 10b (Annex 10.5) shows to be outside the areas identified as 'Undisturbed'.	
	In a world that should be increasingly concerned about problem solving and sustainable productivity, then  "It makes sense that meditation, and indeed any other state of enforced silence and solitude, can be a prerequisite to creative thought and idea generation. Artmaking is often linked to the pop-psychological notion of being "in the zone" – a sort of trance-like creative state analogous to that achieved through meditation, yoga, or other focusing pursuits that link the mind and body in a state of near silence." (Emily Gosling – Creative Review 2018)  P55 – 'Snowdonia is a World Dark Skies Reserve. This is a prestigious award given by the International Dark Sky Association to select destinations that have proven that the quality of their night SKY is outstanding and that real efforts are being made to minimise light pollution.'  Relative tranquillity has been mapped across Wales	This is due to buffers that have been created from areas of development/ transportation routes along the coast and associated with power lines that run close to the peaks to the south.  There is a relatively large resident and visitor population in close proximity to this northerly area of the SNP. The area is relatively easy to access directly along paths or minor roads from the settlements themselves or from the numerous car parks along Sychnant Pass. There are numerous LDR and PRoW providing longer and circular connections across this area. This area is of obvious importance to the local population and visitors due to its relative tranquillity compared with the urban area, and this has been particularly notable during the COVID-19 restrictions. However, it is not considered to be	
	including within SNP.  The Tranquillity Areas Wales Report was commissioned by the CCW in 1997. The purpose of the report was to identify the areas of the Welsh countryside that were relatively undisturbed by noise and visual intrusion and therefore considered unspoilt by urban influences.  The categories of possible intrusions include:	somewhere that offers high levels of tranquillity, peace or solitude. The magnitude of change to this special quality in the northerly section of SNP out to a range of approximately 25 km would be negligible to low as result of visibility of the AyM OWF as part of the wider setting.  At greater distances from the urban edge the mountain areas of SNP become less readily	



BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
"Road Traffic;	accessible and less frequently visited so the	
Settlements;	summits around Foel Fras (Viewpoint 38, Annex	
Electrical Infrastructure;		
Industrial Sites;		
Aircraft;	Peaceful Area where tranquillity and solitude are	
Wind Farms;	more likely to be experienced. However, even	
Race Tracks''	· ·	
Further work on a tranquil area map for Wales was carried out by Land Use Consultants on behalf of CCW in 2009 and is to be used as a basis for monitoring change and to inform policy.	and OWFs, quarries and settlement over wider lowland landscapes that are located across the views west and east. Coastal settlement, shipping in the Irish Sea and pylon lines are also	
of this special quality are:	around Tal-y-Fan (Viewpoint 36, Annex 10.4) and	
<ul> <li>"Changes in land management practices;</li> <li>Changes in legislation;</li> <li>Inappropriate development;</li> </ul>	Visibility of AyM OWF from this area is shown in Viewpoint 38: Foel Fras and Viewpoint 10:  Carnedd Llewelyn (Annex 10.6). The magnitude	
<ul><li>Energy production;</li><li>Inappropriate recreation;</li></ul>	of change at these viewpoints is assessed as <b>Medium-low.</b>	
• Transport;  A comparison undertaken by NRW showed that tranquil areas decreased by 6% or 1,500 km² of tranquil areas in Wales (10% (81 km²) in North-East Wales) over an 11-year period spanning 1998 to 2009.  The 2009 mapping is shown for the study area in Figure 10b (Annex 10.5). This indicates that areas classified as Undisturbed within SNP account for the majority of the upland areas. However, buffers around the settled edges of SNP and along the bounding and through roads (A5) as well as along the route of the pylon mounted transmission line in the northern part of SNP show that this Special	areas of the summits and upper ridgelines at ranges of over approximately 35 km.  The summit of Snowdon itself (Viewpoint 34) is not	
	<ul> <li>Settlements;</li> <li>Electrical Infrastructure;</li> <li>Industrial Sites;</li> <li>Aircraft;</li> <li>Wind Farms;</li> <li>Race Tracks"</li> <li>Further work on a tranquil area map for Wales was carried out by Land Use Consultants on behalf of CCW in 2009 and is to be used as a basis for monitoring change and to inform policy.</li> <li>The factors noted that are further affecting the condition of this special quality are: <ul> <li>"Changes in land management practices;</li> <li>Changes in legislation;</li> <li>Inappropriate development;</li> <li>Energy production;</li> <li>Inappropriate recreation;</li> <li>Transport;</li> </ul> </li> <li>A comparison undertaken by NRW showed that tranquil areas decreased by 6% or 1,500 km² of tranquil areas in Wales (10% (81 km²) in North-East Wales) over an 11-year period spanning 1998 to 2009.</li> <li>The 2009 mapping is shown for the study area in Figure 10b (Annex 10.5). This indicates that areas classified as Undisturbed within SNP account for the majority of the upland areas. However, buffers around the settled edges of SNP and along the bounding and through roads (A5) as well as along the route of the pylon mounted transmission</li> </ul>	Settlements:  Electrical Infrastructure;  Industrial Sites;  Aircraft;  Wind Farms;  Race Tracks"  Further work on a tranquil area map for Wales was carried out by Land Use Consultants on behalf of CCW in 2009 and is to be used as a basis for monitoring change and to inform policy.  The factors noted that are further affecting the condition of this special quality are:  "Changes in legislation;  Inappropriate development;  Energy production;  Inappropriate recreation;  Transport;  A comparison undertaken by NRW showed that tranquil areas decreased by 6% or 1.500 km² of franquil areas in Wales (10% (81 km²) in North-East Wales) over an 11-year period spanning 1998 to 2009.  The 2009 mapping is shown for the study area in Figure 106 (Annex 10.5). This indicates that areas classified as Undisturbed within SNP account for the majority of the upland areas. However, buffers around the settled edges of SNP and along the bounding and through roads (A5) awell as along the route of the pylon mounted transmission line in the northern part of SNP show that this Special



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Neither study formally defined the term tranquillity, however, the Welsh Government has more recently defined the term and Natural Resources Wales adopted this definition for State of Natural Resources Report (SoNaRR): Assessment of the Sustainable Management of Natural Resources. Technical Report (2016).	train). This means that there would be very few opportunities to gain a sense of tranquillity & solitude in this vicinity.	
	"Tranquillity is an untroubled state, which is peaceful, calm and free from unwanted disturbances. This can refer to a state of mind or a particular environment. Tranquillity can be measured in terms of the absence of unwanted intrusions, or by a balancing of positive and negative factors. These include the presence of nature, feeling safe, visually pleasing surroundings and a relaxing atmosphere".		
	Peacefulness and solitude are not further defined or mapped but are most likely to occur in less visited areas of the high peaks where access is across difficult terrain or along poorly defined/ arduous routes and/ or by traversing long distances on foot from locations accessible by vehicle.		
	Value of the Special Quality: High		
	The Special Qualities are an identified and important feature of the SNP.		
	The LANDMAP dataset – Visual and Sensory Evaluation - illustrated in Figure 9 (Annex 10.5) shows that the highest areas of land to the south of the SNP are largely categorised as Outstanding whilst small parcels of land, predominantly on the eastern edge of SNP are identified as Moderate. The remaining areas of SNP located within the study area are largely categorised as High.		
	Susceptibility to change: Medium		
	There would be no physical change to the landscape of SNP where with Special Quality of Tranquillity & Solitude – Peaceful Areas occur. Changes to this Special Quality may only arise through visibility of AyM OWF as part of the wider setting of SNP.		



SPECIAL QUALITY	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Susceptibility is moderated by the distance to the AyM array area of greater than 16.6 km with the majority of SNP being considerably more distant with no visual relationship with the AyM array area.		
	The main areas of influence by AyM OWF are the northern coast and edge hills of SNP which have existing development as part of their setting and which contains numerous human influences that may be considered detrimental to these special qualities.		
	The strength of character in terms of their relative tranquillity, solitude and peacefulness within the more distant, upland, mountainous areas, which are classified largely as 'Undisturbed' (see Figure 10b, Annex 10.5) ensures that their susceptibility to the localised areas with distant views of AyM is limited.		
	<b>Sensitivity: Medium-high</b> - taking account of the assessed high value of the Tranquillity & Solitude – Peaceful Areas Special Quality and the medium susceptibility to the proposed change to it.		
	The National Park's tranquillity & solitude derive from its largely undeveloped, wild and natural character. This is highly valued and susceptible to the potential increase of energy generating infrastructure and built human influence that AyM OWF has the potential to introduce as part of the setting of SNP.		



- The assessment has found there to be significant visual effects on receptors within different parts of the SNP. However, no significant effects on landscape/ seascape character or Special Qualities have been identified although it is acknowledged that there would be non-significant effects that are adverse. This indicates that some degree of 'harm' may arise in relation to the impacts of the development on the wider setting of the SNP through its visibility from the northerly areas.
- This raises the question of whether or not this relationship between AyM and SNP could be considered to meet the key inter-related requirements set out Section 10.2 and summarised as follows:
  - Has regard been had to the purposes of the National Park in line with the statutory duty?
  - Would it be in accordance with the NPS policy on National Parks to consent AyM and that any perceived adverse SLV impact of AyM would be outweighed by its benefits?
- Further information and assessment on this matter is included in the Planning Statement (Section 6.14 (application ref: 8.2). However, it is worth reiterating here that NPS EN-3 recognises that this type of effect may arise, where it acknowledges in paragraph 2.6.208 that:
- 'Where a proposed offshore wind farm is within sight of the coast, there may be adverse effects. The [Secretary of State] should not refuse to grant consent for a development solely on the ground of an adverse effect on the seascape or visual amenity unless:
  - It considers that an alternative layout within the identified site could be reasonably proposed which would minimise any harm, taking into account other constraints that the applicant has faced such as ecological effects, while maintaining safety or economic viability of the application; or
  - taking account of the sensitivity of the receptor(s) as set out in EN-1 paragraph 5.9.18, the harmful effects are considered to outweigh the benefits of the proposed scheme"
- 789 This confirms that the seascape, landscape and visual effects of AyM require consideration in the planning balance in the context of other environmental impacts and the benefits of AyM as a whole.



- The question 'Would AyM cause such 'harm' to the SNP that its overall integrity would be diminished, such that it could no longer be considered to meet the objectives of a National Park lies at the core of these effects. In determining the level of harmful effects, it is important to consider the likely effects of AyM on the integrity of the SNP, which is a measure of the degree to which its Special Qualities continue to define the area. Factors to be considered in determining the degree of harm that may arise as a result of AyM, how this has been minimised through design and how this should be balanced by decision makers are set out below.
- 791 There are nine Special Qualities identified in Cynllun Eryri The Snowdonia National Park Partnership Plan 2020, listed in Section 10.7 of this chapter and Annex 10.3. The SNP Partnership Plan notes that it is 'The combination of distinctive features of each National Park that led to these areas being designated to be protected.' The majority of these distinctive features would be unaffected by AyM largely due to its location at some distance from the SNP.
- The SNP would therefore only be affected through visibility of AyM at a substantial distance offshore (16.5 km) and not any physical change to the balance of features or activities therein. It is the distinctive relationship and quality of the features and activities within the SNP that largely define its inherent character and integrity and not views out from SNP.
- 793 Visibility of AyM from within SNP has not given rise to significant effects on any of the identified Special Qualities, landscape character or seascape character receptors within the SNP.
- The SNP extends back from the steeply sided coastal hills. These as well as the next ridge of hills inland provide a high degree of visual screening of AyM from the majority of SNP further to the south. Between these sets of hills there is an area of open moorland which is influenced by pylon mounted transmission lines which cross over this area and through the southern set of hills.



- The ZTV included in Figures 18a and b (Annex 10.5) shows the extent of the theoretical visibility of MDS A, which has been calculated to equate to 18% of SNP within the Study Area. 94% of the total area of SNP would have negligible or no change to views or character as a result of visibility of the AyM OWF as part of its diverse context.
- Parts of the ZTV areas with theoretical visibility would have no or limited actual visibility due to there being the potential for only blade visibility (not hubs or towers making the WTGs less likely to be discerned over long distances and extensive separating landform) or intervening screening by woodland across certain areas.
- There would be no changes to the diverse landscapes of SNP around the Dyfi, Mawddach and Dwyryd estuaries or to the numerous valleys and passes between the upland areas that are specifically noted in the SNP Partnership Plan.
- One of the SNP Special Qualities includes diverse views that include views over the seascape. The SNP Partnership Plan notes the importance of the national park's coastline, sandy beaches and unspoilt coastal settings as being highly valued and that this coastline extends to 23 km of the SNP boundary. Notably only 1.3 km of this coastline arises within the study area, whilst the remainder is to the west coast where the SNP meets Cardigan Bay. The 1.3 km section of the coast has an immediate setting which has been highly modified by development uses which include the A55, rail infrastructure, and extensive views of urban development as well as operational OWF.
- Whilst there would be no visibility of AyM from the Synchant Pass, which is set inland slightly from the coast the wider seascape setting of the northern parts of SNP around the Sychnant Pass are important and scenically attractive with contrasting features of open sea, notable headlands (the Great Orme) and bays that have a strong sense of place. Nevertheless, views of AyM, which would be visible from the upland area in this northern part of SNP (Viewpoints 12, 40 and 60), would be seen across in the context of coastal development and operational OWFs.



- 800 It is acknowledged that there is a notable difference in WTG scale and spacing between AyM and GyM and, AyM would add to the horizontal extent of OWF views in the seascape views from the SNP in a part of the views that often includes the Great Orme. However, it would almost always be the case that AyM would be seen in the context of the operational OWFs, including the closer range Rhyl Flats OWF and it is considered that areas where there is existing OWF development this generally helps to increase the capacity to accommodate OWF development. Cumulative effects would be focussed in one place, where there are other development influences.
- 801 The viewpoints have been selected to show the views from where AyM would be most visible to assist in providing a clear understanding of the proposals and as such these viewpoints are likely to give rise to a significant effect. They are therefore not representative of views obtained from within the large majority of the SNP, where similar visibility does not arise.
- In relation to landscape character change it is considered that the strong inherent character of the LCA, which is largely informed by the features and patterns of elements within the geographical extent of the LCA itself and make it distinctive from other parts of the landscape, will remain predominant.
- As set out as a requirement in Countryside and Rights of Way Act (2000) (CRoW) the 'relevant authorities' and the Applicant have had regard to the importance of the relationship of AyM to the SNP and its statutory purpose. This has been a focus of ETG discussions with SNP Stakeholders and as a result the Applicant has sought to reduce the SLV effects of AyM on the SNP through measures set out in Section 10.9. This includes a substantial reduction in the AyM array area, which has reduced its horizontal extent within views and substantially reduced the number of WTGs. In addition, the Applicant has proposed mitigation of visible aviation lighting effects to minimise the night time effects.



- Recognition of the need to strategically plan for onshore wind farm development (in order to address climate change impacts) has led the Welsh Government to identify Pre-assessed Areas for Wind Energy (PAWE) areas. As shown on Figure 1 (Annex 10.5) two of these areas are shown to lie immediately to the east of SNP at a minimum distance of around 3 km. This would seem to suggest that there is a recognition that there will be further change through development as part of the context of the SNP that will generally be considered acceptable.
- It is accepted by the Applicant that there would be some significant adverse impact on the views towards the seascape from the SNP and that development of AyM would therefore not be consistent with objectives that seek to enhance the natural beauty or quality of the National Park. However, it is the case that almost no large-scale development would be able to comply with the principle of enhancement and therefore it must be anticipated that any major development would give rise to some degree of friction with such an aim.
- Following consideration of all of these factors it is considered that there may be some perceived diminishment of (harmful effects on) the Special Qualities of Diverse Views and Tranquillity but such effects are not considered to be significant and are therefore limited. There would also be some localised areas where significant adverse visual effects would arise. It is not considered that the SLV receptors within the SNP would be diminished to such a degree that it would affect the overall integrity of the SNP or its inherent natural beauty and it would occur within a context and understanding of the need for change including accommodating alternative energy.

# 10.11.6 Conwy

#### Effects on visual resource

807 Effects on the Conwy visual resource are considered primarily in relation to representative viewpoints (Volume 6, Annex 10.6). Thereafter, where visual receptors require further assessment the effects on the views of people in settlements and using the Wales Coast Path, NCR 5 and the A55, North Wales Expressway are also assessed.



- 808 The assessments of the representative viewpoints then inform the assessments of the effects on landscape character and seascape character.
- Design refinements following stakeholder feedback have reduced the extent of the horizontal field of view affected by the AyM OWF by removing the westerly area of the AyM array area and the WTGs therein. The number of WTGs visible within the remaining AyM array area has also been reduced in all views from seascape, landscape and visual receptors.
- 810 The main focus of the assessment is on MDS A, however, an agreed selection of key viewpoints also include assessment of MDS B.
- 811 Effects on the representative viewpoints are assessed in Table 11 and thereafter are used to inform the assessments of the effects on visual, seascape and landscape receptors.



Table 11: Effect on Conwy Representative Viewpoints During Construction/ Decommissioning and Operation.

VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
11: Llanfairfechan	Located within the Coastal Landscape Unit (Penmaenmawr to Llanfairechan)  Llanfairfechan is in SCA 3 – Traeth Lafan with the more distant sea views between the Great Orme and Penmon Point/ Puffin Island being within SCA 2 – Conwy Bay and encompassing SCA 28 – North-east of Anglesey beyond.  This viewpoint is located on the promenade close to the parking area on the east side of the café, near the information signage.  It is representative of views obtained by users of the WCP, NCR 5 and people in the wider settlement. There is a large car park, and a storage area for small boats as well as a slipway. To the west of the viewpoint is a small boating pool. There are numerous benches and sheltered seating located to allow appreciation of the views out to sea.  There are a small number of properties on the north side of the A55 and rail line and to the north-east of the village that have views out to sea, however the majority of the settlement is located on the south side of these routes and has very limited visual association with the sea. The view across the sea is panoramic and extends over approximately 180 degrees of the field of view taking in the south-eastern Anglesey Coast from Beaumaris in the west out to Penmon Point and Puffin Island to the north-east. The seascape is constrained on the east side by the Great Orme and the isthmus at Llandudno as well as the steeply rising landforms at the edge of SNP which include Penmaen-bach. Within this large partially enclosed seascape lie the extensive tidal mud flats of Traeth Lafan and the open waters of Conwy Bay.  The open sea horizon extends between Puffin Island and the Great Orme, a distance of approximately 9.5 km, which equates to approximately 60 degrees of the field of view. When the tide is out the open sea appears as a narrow strip above an extensive beach and mud flats along this stretch of the coast.  There are extensive groynes along the beach to prevent erosion.	Construction/ Decommissioning: Negligible to Medium Activity within the array area at 22.2 km and vessel movements intensified in the vicinity during construction/ decommissioning work which is largely below sea surface or of limited extent - negligible. Visibility of WTG as they are constructed or dismantled/commissioned or dismantled, which will occur over a period of less than 18 months in each instance – Medium.  Operation (MDS A): Medium  Movement and structures of 29 WTGs visible as prominent elements on the open seascape horizon at a range of 22.4 km. Met mast visible to the west and 2 OSPs visible amongst the WTGs; this marks a reduction from 42 turbines visible at the PEIR stage in response to stakeholder feedback.  WTGs visible across approximately 19 degrees of the field of view. This a substantial reduction in the open sea skyline affected by AyM WTGs.  AyM would introduce complexity and movement into this otherwise simple view, however, the key features of the seascape of the bay enclosed by landform features would remain prominent.	Construction/ Decommissioning  Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate (Significant), adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate (Significant), adverse, long term, reversible.  Likelihood of effect  Requires Very Good or Excellent visibility.  Visibility frequency at this range: 66%.  Occurs most frequently in Summer.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	The landform features of the island and headlands, as well as the coastal landform are important components of the scenic value of the views out to sea.	The WTGs extend behind the Great Orme so that approximately 1/6 of its extent is obscured behind it.	
	Views inland include the edge of the seaside settlement as well as visitor facilities and the complex structures around the A55 and rail route where they are forced close to the sea edge and through tunnels/ cuttings through Penmaen-Mawr. There is also a footbridge over the railway visible.	The OWF is largely associated with a part of the view that has some limited development characteristics which include the buildings on the Great Orme and at Llandudno as well as the	
	There is no perception of remoteness or tranquillity at the viewpoint and the simplicity and composition of the seascape offers a contrast to this and provides a strong sense of place	operational OWF WTGs that are visible on the east side of the Great Orme and the A55 and rail line infrastructure along the coastal edge.	
	It is possible to see the development on the coast at Llandudno and along the lower slopes of the Great Orme.	It therefore does not encroach on the less	
	The upper parts of the WTGs of the Rhyl Flats OWF are visible over the properties at Llandudno in Very Good to Excellent visibility conditions at a distance of 23.5 km.	developed and nationally designated (IoA AONB) Puffin Island or the landscape of the SNP, which form part of the panoramic views.	
	Value of view: Medium	WTGs appear smaller in height compared	
	Not located within a National or Local landscape designation.	to the most prominent landform of the	
	LANDMAP visual and sensory evaluation – moderate.	Great Orme, however the operational	
	Likely to be locally valued as a setting to the village.	turbines and buildings at Llandudno and on the Great Orme provide scale	
	Susceptibility to change: Medium-high	comparisons that indicate the large size	
	The view is representative of receptors on the WCP as well as people in	of the WTGs.	
	the coastal parts of the small settlement or using the beach and facilities for recreation.	View of WTG MDS arrangement relatively consistent across the array area although	
	This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).	there is some overlapping of WTGs where they align.	
	Views from this location are likely to be part of intended experience, with the facilities offered also being part of the attraction.	Mitigation measures  As a result of stakeholder feedback, the	
	Views over the bay and out to sea are a focus of views.	AyM array area has been reduced. This	
	<b>Sensitivity: Medium-high -</b> taking account of the assessed medium value of the viewpoint and the medium-high susceptibility to the proposed change to it.	has reduced its horizontal extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		the level of magnitude of change assessed in the PEIR.	
13: Great Orme - near summit complex	Located within the Great Orme and Creuddyn Peninsula landscape unit.  The Great Orme Summit is at the transition between SCA 2 – Conwy	Construction/ Decommissioning: Low to Medium-high  Activity within the array area at 11.7 km	Construction/ Decommissioning  Moderate-Minor effect (Non-significant), adverse, short-term temporary during
	Bay and SCA – A Llandudno Bay with wider seascape views encompassing SCA 28 – North-east of Anglesey, SCA B – Colwyn Bay and SCA F – North Wales Open Waters.  The viewpoint is located on a well-worn path that runs between the car park and a PRoW to the north of the summit complex.  Sea views are available across a field of view of approximately 160 degrees. To the north these are constrained by the rising landform of the Great Orme and to the south and east by the varied landform of the north Wales coast which include the bays of Llandudno and Colwyn.  OWFs are a feature of the seascape in the views to the north east with and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface of limited extent – Low.  Visibility of WTG as they are constructed/commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium-high Movement and structures of 34 WTGs visible as prominent elements on the		early stages of construction phase and latter stages of decommissioning phase.  Moderate-Major (Significant) adverse,
		Visibility of WTG as they are constructed/	short-term temporary during latter stages of construction phase and early stages of decommissioning.
		occur over a period of less than 18 months in each instance – Medium-high.	Operation (MDS A)  Moderate-Major (Significant), adverse,
		Movement and structures of 34 WTGs visible as prominent elements on the open seascape close to the horizon at a range of 11.8 km; this marks a reduction from 50 turbines visible at the PEIR stage in response to stakeholder feedback.  Met mast visible to the west and 2 OSPs	long term, reversible.  Operation (MDS B)  Moderate-Major (Significant), adverse, long term, reversible.
	beyond these.  Operational OWF development is seen across approximately 36 degrees of the field of view.		Requires Good, Very Good or Excellent visibility.
	The foreground to the sea views is characterised by convex, steeply sloping landform, which conceals views of Marine Drive (the route of the WCP) and the rocky base of the slopes, where they reach the sea. The landcover is a contrasting mix of enclosed rough pasture grazed by sheep with steeper, rocky areas ungrazed with a heather/ gorse landcover.	visible amongst the WTGs.  AyM OWF WTGs visible across approximately 39 degrees of the field of view in the vicinity of and extending the existing, but apparently smaller and more densely spaced, operational WTGs of	Visibility frequency at this range: 87%.  Occurs most frequently in Summer but also in Winter.
	Below the viewpoint are two historically interesting cemeteries. One is the Great Orme Cemetery and Chapel and the other is Saint Tudno's Church within its own churchyard.	GyM.  The resulting combined horizontal field of view of OWF is approximately 75 degrees,	
	There are numerous paths, minor roads traversing the slopes with parking areas and look out points also visible. A key feature of the wider view is the cable car, which is evident due to its prominent	which is a large proportion of the sea skyline. However, the separation of the WTGs from the coast by an expanse of water and the potential to see the sea	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	stanchions and cable car station. The large building of the visitor complex is also visible as part of the wider view from this viewpoint.	and sky between the WTGs makes their presence less of an impact.	
	The summit of the Great Orme is busy with activity and vehicles and there is no sense of remoteness or tranquillity in close proximity to it.	AyM would be largely associated with a part of the view that has some limited	
	Value of view: Medium-high	development characteristics in the form	
	Great Orme & Creuddyn Peninsula (SLA) and Great Orme Heritage Coast	of the routes, parking and cemeteries as well as the operational OWF WTGs.	
	Susceptibility to change (Daytime): Medium-high	The WTGs are set back from the Great Orme and separated from it by a wide	
	The view is representative of receptors on the summit of the Great Orme where they are likely to be using the facilities and routes as visitors or for recreation in a semi-rural setting.	strip of open water which is part of a large expanse of sea visible from the Great Orme.	
	There are also less elevated opportunities also available in this direction from Marine Drive (WCP) as well as people in the coastal parts of the small settlement or using the beach and facilities for recreation.	These factors, assist in increasing the capacity of the view to accommodate AyM.	
	Views from this location are likely to be part of intended experience, with the facilities offered also being a key part of the attraction.	View of WTG MDS arrangement relatively consistent across the array area although	
	This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).	there is 'stacking' of WTGs where they align along the westerly row in this MDS A	
	Views out to sea are a key part of the visual setting of the Great Orme.	layout.	
	Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a moderate distance and context and current outlook towards the AyM array area contains development features, including operational OWF.	Operation (MDS B): Medium-High  Movement and structures of 50 WTGs  visible as prominent elements on the horizon at 11.8 km; this marks a reduction	
	<b>Sensitivity: Medium-high -</b> taking account of the assessed medium-high value of the viewpoint and the medium-high susceptibility to the proposed change to it.	from 91 turbines visible at the PEIR stage in response to stakeholder feedback. Met mast visible to the west. 2 OSPs visible amongst the WTGs.	
		WTGs visible across a slightly wider horizontal field of view than the MDS as part of very wide sea views from this location. This occurs in the vicinity of and extending the existing, but apparently smaller and more densely spaced, operational WTGs of GyM.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		The combined horizontal field of view of OWF is approximately 75 degrees, which is a large proportion of the sea skyline.	
		However, the separation of the WTGs from the Great Orme by an expanse of water and the potential to see the sea and sky between the WTGs makes their presence less of an impact.	
		The OWF is largely associated with a part of the view that has some limited development characteristics in the form of the routes, parking and cemeteries as well as the operational OWF WTGs.	
		View of WTG MDS arrangement changes across the array area with some of the rows notably aligned.	
		Mitigation measures	
		As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced its horizontal extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
15: Great Orme – Café	Located within the Great Orme and Creuddyn Peninsula landscape	Construction/ Decommissioning: Low to	Construction/ Decommissioning
	unit.  The Great Orme Cafe is at the transition between SCA 2 – Conwy Bay, SCA – A Llandudno and SCA 28 – North-east of Anglesey. Views also encompass SCA B – Colwyn Bay and SCA F – North Wales Open Waters.  The viewpoint to the rear of the café, closer to the coast and within a walled, grassy area which also includes, external café seating and	Medium-high  Activity within the array area at 11.1 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or of limited extent – Low.  Visibility of WTG as they are constructed/commissioned or dismantled which will	Moderate-Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate-Major (Significant) adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
VIEWPOINT	parking. There is a telescope within this area for public use, following payment, as well as interpretative materials presented.  It is representative of views from the nearby Wales Coast Path/ Marine Drive which circumnavigate the Great Orme. Marine Drive is one-way road so this view illustrates the last view available from vehicles using the route before it heads round the Great Orme. The route is elevated above sea level, running along a flatter area that arises between the upper and lower, craggy, more vertical landforms of the Great Orme as can be seen in the wider baseline views.  Sea views are available across a field of view of approximately 240 degrees. To the south-west and south-east north these are constrained by the rising landform of the Great Orme which forms the backdrop to the viewpoint. Views in that direction also include Marine Drive itself, the car park and small café building.  Views towards the south-west are across the broad mouth of Conwy Bay beyond which the relatively low form of the Isle of Anglesey forms a narrow strip of land between sea and sky. It is close enough to pick out features on the Anglesey coast, which includes the pattern of landcover, Puffin Island and its associated lighthouse and other built development, which includes telecommunications masts on the skyline. The low skyline of Isle of Anglesey extends into the distance with some onshore wind farms just visible on the skyline. Yachts and several large vessels are also visible within this part of the view.  Views to the west round to the north-east are out across wide open seascape. There are several yachts visible close to the Great Orme.  OWFs are a feature of the seascape in the views to the north east	occur over a period of less than 18 months in each instance – Medium-high.  Operation (MDS A): Medium-high  Movement and structures of 34 WTGs visible as prominent elements on the open seascape close to the horizon at a range of 11.2 km.  Met mast visible to the west and 2 OSPs visible amongst the WTGs.  AyM OWF WTGs visible across approximately 46 degrees of the field of view partially in the vicinity of but predominantly extending the influence of the existing, but apparently smaller and more densely spaced, operational WTGs of GyM and Rhyl Flats OWFs.  The resulting combined horizontal field of view of OWF is approximately 82 degrees, which is approximately one third of the seascape within the view which extends across 240 degrees.  Whilst the AyM WTGs will appear large at this range the impact of the AyM OWF is moderated in this view by the fact that a wide horizontal field of the view remains as open, expansive seascape and	Operation (MDS A)  Moderate-Major (Significant), adverse, long term, reversible.  Likelihood of effect  Requires Good, Very Good or Excellent visibility.  Visibility frequency at this range: 87%.  Occurs most frequently in Summer but also in Winter.
		as open, expansive seascape and undeveloped. The separation of the WTGs from the Great Orme by an expanse of water and the potential to	
	Beyond these the Clwydian Range is seen to rise above the seascape and appears as a narrow landform on the skyline.  The foreground to the sea views is characterised by a stone wall with the craggy cliff edge beyond.	see the sea and sky between the WTGs assists with increasing the capacity of the view to accommodate AyM  View of WTG MDS arrangement relatively consistent across the array area although the westerly edge WTGs are more	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Value of view: Medium-high  Great Orme & Creuddyn Peninsula (SLA) and Great Orme Heritage Coast.	noticeable where their alignment is apparent and also there is a gap between these and adjacent WTGs.	
	Location visited by relatively large numbers of people.  Susceptibility to change (Daytime): Medium-high  The view is representative of receptors on the edge of the Great Orme where they are likely to be using the facilities and routes as visitors or for recreation in a semi-rural setting.  Views from this location are likely to be part of intended experience, with the facilities offered also being a key part of the attraction.  This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009) (Figure 10b, Annex 10.5).  Views out to sea are a key part of the visual setting of the Great Orme.  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a moderate distance and context and current outlook contains development features, including operational OWF.  Sensitivity: Medium-high - taking account of the assessed medium-high value of the viewpoint and the medium-high susceptibility to the proposed change to it.	the view as well as the WTG numbers.  he  ne.  a to  nal	
18: Llandudno paddling pool	Located within the Great Orme and Creuddyn Peninsula landscape unit.  Llandudno is in SCA A - Llandudno Bay with wider seascape views encompassing SCA B – Colwyn Bay and SCA F – North Wales Open Waters.  The viewpoint is located close to the sea wall, on the hard standing next to the paddling pool a popular visitor attraction which is also close to the RNLI lifeboat station (and visitor centre). The curved Llandudno Bay has a long beach popular with visitors and also visible in the view.  Sea views extend across approximately 160 degrees of the field of view within the bay. The sea horizon is contained to the west by the Great Orme and to the east by Little Orme and extends across approximately 120 degrees.	Construction/ Decommissioning: Low to Medium-high  Activity within the array area at 11.7 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or of limited extent – Low.  Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium-high.  Operation (MDS A): Medium-high	Construction/ Decommissioning  Moderate-Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate-Major (Significant) adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate-Major (Significant) adverse, long term, reversible.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	OWFs are a feature of the seascape in the views to the north-east with the closest being Rhyl Flats at 9.9 km and Gwynt- y- Mor stretching across the widest field of view at a range of 15.8 km with further OWF beyond these.  Operational OWF development is seen across approximately 51 degrees of the field of view and is partly screened by Little Orme from this viewpoint.  The inland parts of the view include the curved sea-frontage of three to five storied buildings, which are mostly associated with the tourist industry but also including the Venue Cymru events centre.	Movement and structures of 34 WTGs visible as prominent elements on the open seascape close to the horizon; this marks a reduction from 48 turbines visible at the PEIR stage in response to stakeholder feedback. Met mast visible to west and 2 OSPs visible amongst the WTGs.  WTGs visible across approximately 42 degrees of the field of view in the vicinity of and extending the existing, but	Operation (MDS B)  Moderate-Major (Significant) adverse, long term, reversible.  Likelihood of effect  Requires Good, Very Good or Excellent visibility.  Visibility frequency at this range: 87%.  Occurs most frequently in Summer but also in Winter.
	The land between the sea wall and these buildings is given over to a road (The Parade) and a wide promenade, which is the route of the WCP and NCR 5, with numerous benches and small pavilions sited to encourage views out to sea.  At the end of the Parade is an area of gardens, a war memorial an amusement park and further accommodation, including the large-scale Grand Hotel.	apparently smaller and more densely spaced, operational WTGs of GyM. The combined horizontal field of view of OW is approximately 83 degrees, which is a large proportion of the 160 degrees of	
	Buildings and structures can be seen rising up the slopes of the Great Orme and built structures are also seen round the foot of the Orme rising up from the Llandudno Pier towards the Botanic Gardens and the dry ski slope facilities.	The separation of the WTGs from the coast and Great Orme by an expanse of water, the potential to see the sea and sky between the WTGs set within a large expanse of seascape that is	
	The Orme itself is a prominent feature of the views from Llandudno and it provides the settlement with a strong sense of place. The contrast between its developed and wooded southern end and the markedly, striped strata of the northern slopes adds to its interest.	characterised by existing OWFs and influenced by coastal development are factors that assist in increasing the capacity of this view to accommodate	
	To the east of the viewpoint Little Orme appears as cliff faces rising out of the sea. Its steep slopes and rugged summit provides a sense of impenetrability that contrasts with the accessibility of the Great Orme.	rising out se of AyM. View of WTG MDS arrangement is inconsistent across the array area with	
	Further houses are seen at its foot with residential development extending inland between an area of open grassland and rising wooded slopes.	some awkward 'stacking' of WTGs where they align along the central rows in contrast to the other turbine groupings or more consistently arranged WTGs in other	
	Value of view: Medium	parts of the array. This does however	
	Not located within a National or Local landscape designation.  LANDMAP visual and sensory evaluation – high.	emulate the pattern of WTG visibility seen across GyM OWF.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Likely to be locally valued as part of the setting to the town.	Operation (MDS B): Medium-high	
	Susceptibility to change: Medium-high	Movement and structures of 50 WTGs	
	The view is representative of receptors in the vicinity of the paddling pool, on the WCP or using the beach/ other facilities.	visible as prominent elements on the open seascape close to the horizon; this marks a reduction from 91 turbines visible	
	Also representative of the views gained by residents/ visitors to accommodation in this part of Llandudno.	at the PEIR stage in response to stakeholder feedback. Met mast visible to	
	Views from this location are likely to be part of intended experience, with the facilities offered also being a key part of the attraction.	west and 2 OSPs visible amongst the WTGs.	
	Views out to sea, across the Bay are a key part of the visual setting of Llandudno.	WTGs visible across a slightly greater extent of the field of view when	
	This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).	compared with MDS A. This occurs in the vicinity of and extending the existing, but	
	Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a moderate distance and context and	apparently smaller and more densely spaced, operational WTGs of GyM.	
	current outlook towards the AyM array area contains development features including operational OWF.	The combined horizontal field of view of OWF is approximately 83 degrees, which is a large proportion of the sea skyline.	
	Sensitivity: Medium-high - taking account of the assessed medium value of the viewpoint and the medium-high susceptibility to the proposed change to it.	The separation of the WTGs from the coast and the Great Orme by an expanse of water and the potential to see the sea and sky between the WTGs set within a large expanse of seascape that is characterised by existing OWFs and influenced by coastal development are factors that assist in increasing the capacity of this view to accommodate AyM. View of WTG MDS B arrangement is	
		inconsistent across the array area with some awkward clustering of WTGs where they almost align along the central rows in contrast to the other turbine groupings or more consistently arranged WTGs in other parts of the array. This does however emulate the pattern of WTG visibility seen across GyM OWF.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		The smaller WTGs of MDS B have slightly less of a marked scale difference with the operational OWF WTGs when compared with those of the MDS A.	
		Mitigation measures	
		As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced its horizontal extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
20: Bryn Euryn	Located within the Limestone Escarpment and Hills landscape unit.	Construction/ Decommissioning: Low to	Construction/ Decommissioning
	Bryn Euryn is on the inland edge of SCA B – Colwyn Bay with wider views encompassing SCA C – Vale of Clwyd and SCA F – North Wales Open Waters.	Medium  Activity within the array area at 13.2 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or	Moderate-Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate (Significant), adverse, short-
	The viewpoint is located near the summit of a small hill (131m AOD) that rises up above the settlement of Rhos-on-Sea.		
	The hill is a Local Nature Reserve and also the site of a hill fort. It is crossed by numerous PRoW.	of limited extent – Low.  Visibility of WTG structures as they are	term temporary during latter stages of construction phase and early stages of
	The viewpoint is located to the north of the trig point where open views towards the AyM array area are gained.	constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance –	decommissioning.  Operation (MDS A)  Moderate (Significant), adverse, long term, reversible.  Likelihood of effect
	Views out to sea extend across over 90 degrees of the view to the north-north-east. They are contained in the west by the Little Orme and to the east by landform and vegetation.	Medium.  Operation (MDS A): Medium	
	OWFs are a feature of the seascape in the views to the north-east with the closest being Rhyl Flats at 9.6 km and Gwynt- y- Mor stretching across the widest field of view at a range of 19.7 km with further OWF	Movement and structures of 34 WTGs visible as prominent elements on the open seascape on and close to the horizon at a range of 13.4 km; this marks a reduction from 91 turbines visible at the	Requires Good, Very Good or Excellent visibility.  Visibility frequency at this range: 84%.
	Operational OWF development is seen across approximately 50 degrees of the field of view.	PEIR stage in response to stakeholder feedback.	Occurs most frequently in Summer but also in Winter.
	In the foreground of the seascape are extensive areas of housing. Rhos-on-Sea rises up over Rhos Point obscuring the sea edge. It is	2 OSPs just visible amongst these.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	separated from nearby Penrhyn Bay by a golf course and farmland. The Little Orme and the high ground behind Llandudno are seen rising above the settlement. The dualled B5115 is seen traversing through to the coast between wooded slopes bellow.  Little Orme is less conspicuous in views from this direction. It's summit and edges are rock, the eastern parts of which have been subject to quarrying. It has a central plateau of improved, subdivided pasture making it appear more akin to the other areas of rising ground that separate the farmed valley from Llandudno. The Great Orme can be seen to the north-west above this higher, wooded area and there are views west across the village of Llanrhos and Conwy Bay to the shallow landform of Anglesey beyond.  The land rises to the south-west and south, obscuring distant views.  Value of view: Medium	WTGs visible across approximately 40 degrees of the field of view in the vicinity of and extending the existing, but apparently smaller and more densely spaced, operational WTGs of GyM. The AyM WTGs appear more distant but larger than those of the closer Rhyl Flats OWF.  The combined horizontal field of view of OWF is approximately 90 degrees (although some of these are at a substantial distance), which is a large proportion of the sea skyline.  The WTGs are set slightly away from Little	
	Not located within a National or Local landscape designation.  LANDMAP visual and sensory evaluation – high.  Likely to be locally valued.  Susceptibility to change: Medium-high  Receptors are likely to be local people walking with a focus on reaching the summit for exercise and to obtain the varied views from the vantage point.  The contrast of the nature reserve environment of the hill with the otherwise semi-urban area provides readily available, attractive opportunities to interact with the natural world.  People are transient so views from this location will be relatively short in duration.  This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a moderate distance and current outlook contains many development features.	Orme. They are seen across the horizon in the same part of the horizontal field of view as the developed coastline. In addition, the separation of the WTGs from the coast by an expanse of water and the potential to see the sea and sky between the WTGs set within a large expanse of seascape that is characterised by existing OWFs and influenced by coastal development are factors that assist in increasing the capacity of this view to accommodate AyM.  View of WTG MDS A arrangement is inconsistent across the array area with some awkward overlapping of WTGs where they almost align along the central rows in contrast to the other turbine groupings or more consistently arranged WTGs in other parts of the array. This does	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Sensitivity: Medium-high - taking account of the assessed medium	Mitigation measures	
	value of the viewpoint and the medium-high susceptibility to the proposed change to it.	As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced its horizontal extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
21: Mynydd Marian	Located within the Limestone Farmlands (Abergele to Denbigh	Construction/ Decommissioning:	Construction/ Decommissioning
Wallan	Coastal/ Vale Hills) landscape unit.  Mynydd Marian is on the inland edge of SCA B – Colwyn Bay with wider views encompassing SCA C – Vale of Clwyd and SCA F – North Wales Open Waters.	Negligible to Medium  Activity within the array area at 16.1 km and vessel movements intensified in the vicinity during early stage construction	Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.
	The viewpoint is located on Ffordd-y-Llan road. This is a residential street with housing along its west side. The road provides access to settlement beyond and runs along the edge of a small hill, Mynydd Marian, which is part of the rising landform inland from the coast.	work which is largely below sea surface or of limited extent – Negligible.  Visibility of WTG structures as they are constructed/ commissioned or	Moderate effect (Significant), adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.
	The settlement of Penmaen Rhos rises up from the coast around the site of the large void that is Raynes Quarry.	dismantled which will occur over a period of less than 18 months in each instance –	Operation (MDS A)  Moderate effect (Significant), adverse,
	Views out to sea occur across approximately 140 degrees of the field of view from this elevated viewpoint. They are contained in the west by Little Orme, Penrhyn Bay, Rhos Point and Colwyn Bay and to the east by the coastline at Rhyl and Prestatyn, extending out to sea at Point of Ayr with the rising landform of the Clwyndan Range above.	Medium  Operation (MDS A): Medium  Movement and structures of 34 WTGs visible as prominent elements on the open seascape on and close to the	long term, reversible.  Likelihood of effect  Requires Good, Very Good or Excellent visibility.
	OWFs are a feature of the seascape in the views to the north-east with the closest being Rhyl Flats at 9.6 km and Gwynt- y- Mor stretching across the widest field of view at a range of 15.3 km with further OWF beyond these. North Hoyle and Burbo Bank and Extension are also seen across the sea skyline at greater distances.	horizon at a range of 16.2 km; this marks a reduction from 91 turbines visible at the PEIR stage in response to stakeholder feedback. Met mast just visible to west and 2 OSPs visible amongst the WTGs.	Visibility frequency at this range: 79%.  Occurs most frequently in Summer but also in Winter.
	Operational OWF development is seen across approximately 65 degrees of the field of view.  Settlement is a prominent component of the view with houses, roads and pole mounted transmission lines apparent to the west and east.	AyM WTGs visible across approximately 36 degrees of the field of view in the vicinity of and extending the existing, but apparently smaller and more densely spaced, operational WTGs of GyM. The	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	The central part of the view is dominated by the stone wall and the narrow strip of hedge bounded, pastural fields that run between the road and the quarry edge. The quarry itself is not visible, nor is the coastal edge, which is also obscured by the intervening land and vegetation.  Value of view: Medium  Not located within a National or Local landscape designation.  LANDMAP visual and sensory evaluation – moderate.  Likely to be locally valued as the outlook from the houses and route.  Susceptibility to change: Medium-high	AyM WTGs appear more distant but larger than those of the closer Rhyl Flats OWF.  The combined horizontal field of view of OWF is approximately 92 degrees, which is a large proportion of the sea skyline although some of the operational OWFs are smaller and at a long distance.  The WTGs are set away from Little Orme, separated from it by a swathe of open sea horizon. They are seen across the	
	The view is representative of receptors walking along the pavement or using the road to travel towards the coast.  Also representative of the views gained by residents on Ffordd-y-Llan.  Views out to sea are part of the visual setting.  This viewpoint is not located in an area identified as Undisturbed in the Tranqullity Classification (2009).	horizon in the same part of the horizontal field of view as the developed coastline. In addition, the separation of the WTGs from the coast by an expanse of water and the potential to see the sea and sky between the WTGs set within a large expanse of seascape that is	
	Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a moderate distance and context and current outlook towards the AyM array area contains development features including operational OWF.	characterised by existing OWFs and influenced by coastal development are factors that assist in increasing the capacity of this view to accommodate	
	Sensitivity: Medium-high - taking account of the assessed medium value of the viewpoint and the medium-high susceptibility to the proposed change to it.	AyM. View of WTG MDS arrangement is relatively consistent across the AyM array area. There are three WTGs in the eastern part of the array area which overlap with the areas of the view affected by GyM and Rhyl Flats OWFs and result in visual complexity.	
		Mitigation measures  As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced its horizontal extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		been sufficient to alter the level of magnitude of change assessed in the PEIR.	
22: Abergele promenade	Located within the Coastal & Estuarine Flats (Prestatyn to Abergele) landscape unit.  Abergele is on the coast of SCA C – Vale of Clwyd and encompasses views across SCA B – Colwyn Bay and SCA F – North Wales Open Waters beyond.  The viewpoint is located on the promenade between the sea wall and the play park, east of the parking and just north-west of the railway station.  The viewpoint is representative of views from the promenade and visitor facilities as well as from the WCP and NCR 5 which follow the route. It is also representative of views from the rail line and nearby A55 both of which have some open views in this vicinity.	Construction/ Decommissioning: Negligible to Medium-low  Activity within the array area at 17.8 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or of limited extent – Negligible.  Visibility of WTG as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium-Low.  Operation (MDS A): Medium-low	Construction/ Decommissioning  Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate (Non-significant), adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate (Non-significant), adverse, long term reversible.
	It is not representative of views from the settlements of Pensarn and Abergele which are relatively low-lying and sited on the inland side of main transport routes, which limit views out to sea.  Views out to sea occur across approximately 160 degrees of the field of view from this elevated viewpoint. They are contained in the west by Little Orme, Penrhyn Bay, Rhos Point and Colwyn Bay and to the northeast by the coastline at Rhyl. The rising landform of the Clwyndan Range can be seen further inland to the east.  OWFs are a feature of the seascape in the views to the north-east with the closest being Rhyl Flats at 8.9 km and Gwynt-y- Mor stretching across the widest field of view at a range of 13.9 km. North Hoyle and Burbo Bank and Extension are also seen across the sea skyline at greater distances.  Operational OWF development is seen across approximately 90 degrees of the field of view.  The long sweeping beach is a key feature of the coastline here. This is seen in the immediate context of settlement and urban infrastructure including recreational facilities, the rail crossing, car parking, masts and prominent street lighting as well as the houses beyond the rail line.	Movement and structures of 34 WTGs visible as prominent elements on the horizon at a range of 17.9 km. Met mast visible to west and 2 OSPs visible amongst the WTGs.  AyM WTGs visible across approximately 34 degrees of the field of view largely in the vicinity of but also extending the existing, Rhyl Flats and GyM OWFs. The eastern part of the AyM array area WTGs appear similarly scaled and spaced to the closer Rhyl Flats WTGs, although they are further away. The location of both OWFs on the skyline in this view assists with this perceived integration. The GyM WTGs are both smaller in scale than the AyM WTGs and are further away from this viewpoint than Rhyl Flats OWF and are seen across part of the horizontal field of view affected by both Rhyl Flats and AyM.	Operation (MDS B)  Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate (Non-significant), adverse, long term, reversible during latter stages of construction phase and early stages of decommissioning.  Likelihood of effect  Requires Good, Very Good or Excellent visibility.  Visibility frequency at this range: 77%.  Occurs most frequently in Summer but also in Winter.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Settlement, large areas of caravan parks and recreational facilities can be seen as part of the wider view, extending along the coast up the otherwise frequently wooded hill slopes to the west and along the coastline to the north-east at Rhyl where the tall structure at the amusement park and the Town Hall spire are visible.	The combined horizontal field of view of OWF is approximately 100 degrees. This indicates that AyM adds an additional 10 degrees to the OWF extents across a wide sea view.	
	Value of view: Medium	The separation of the WTGs from the	
	Not located within a National or Local landscape designation.  LANDMAP visual and sensory evaluation – low  Likely to be locally valued as the outlook from this section of the coast.  Susceptibility to change (Daytime): Medium-high  The view is representative of receptors visiting, walking or cycling along this coastal route.  Also representative of the views gained by users of the rail line and	coast (and Great Orme) by an expanse of water and the potential to see the sea and sky between the WTGs set within a large expanse of seascape that is characterised by existing OWFs and influenced by coastal development are factors that assist in increasing the capacity of this view to accommodate AyM.	
	A55.  Views out to sea are part of the visual setting for these transient receptors.	View of WTG MDS arrangement is relatively consistent across the array area.	
	This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a moderate distance and development context. Current outlook towards the AyM array area also contains development features including operational OWF as part of wide, expansive sea views.  Sensitivity: Medium-high (daytime) - taking account of the assessed medium value of the viewpoint and the medium-high (daytime)	Operation (MDS B): Low  Movement and structures of 50 WTGs visible as prominent elements on the horizon at a range of 17.9 km; this marks a reduction from 91 turbines visible at the PEIR stage in response to stakeholder feedback. Met mast just visible to the west and 2 OSPs visible amongst the WTGs.  WTGs visible across a slightly wider extent	
	susceptibility to the proposed change to it.	of horizontal field of view to the east than the MDS A.  Occurs largely in the vicinity of but also extending the existing, Rhyl Flats and GyM OWFs. The eastern part of the AyM array area WTGs appear slightly smaller in scale and similarly spaced to the closer Rhyl Flats WTGs, although they are further	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		away. In the western part of the AyM array area the WTGS appear similarly scaled to Rhyl Flats WTGs. The location of both OWFs on the skyline in this view assists with this perceived integration. The GyM WTGs are both smaller in scale than the AyM WTGs and are further away from this viewpoint than Rhyl Flats OWF and are seen across part of the horizontal field of view affected by both Rhyl Flats and	
		AyM.  The combined horizontal field of view of OWF is approximately 100 degrees. This indicates that AyM adds an additional 10 degrees to the OWF extents across a wide sea view.	
		The separation of the WTGs from the coast (and Great Orme) by an expanse of water and the potential to see the sea and sky between the WTGs set within a large expanse of seascape that is characterised by existing OWFs and influenced by coastal development are factors that assist in increasing the capacity of this view to accommodate AyM.	
		View of WTG MDS B arrangement is relatively consistent across the array area although there is some overlapping in the central area.	
		Mitigation measures	
		As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced its horizontal extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in	



impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
Construction/ Decommissioning: Negligible to Medium-high  Activity within the array area at 13.9 km and vessel movements intensified in the vicinity during early stage construction work which is largely below sea surface or of limited extent – Negligible.  Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period of less than 18 months in each instance – Medium-high.  Operation (MDS A): Medium-high  Movement and structures of 34 WTGs visible as prominent elements on the open seascape on and close to the horizon at a range of 14 km; this marks a reduction from 48 turbines visible at the PEIR stage in response to stakeholder feedback.  2 OSPs visible amongst the WTGs  WTGs theoretically visible across approximately 39 degrees of the field of view. The westernmost WTG will be largely screened by the intervening buildings at Rhos Point. The AyM WTGs will be seen partly in the vicinity of but also extending the existing, Rhyl Flats and GyM OWFs. The eastern part of the AyM array area WTGs appear similarly scaled	Construction/ Decommissioning  Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate-Major (Significant) adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate-Major (Significant), adverse, long term, reversible.  Operation (MDS B)  Moderate-Major (Significant), adverse, long term, reversible.  Likelihood of effect  Requires Good, Very Good or Excellent visibility.  Visibility frequency at this range: 84%.  Occurs most frequently in Summer but also in Winter.
Adarvide of Viscosia of Mississia of Mississ	ctivity within the array area at 13.9 km and vessel movements intensified in the cinity during early stage construction ork which is largely below sea surface or a limited extent – Negligible.  Isibility of WTG structures as they are constructed/ commissioned or a smantled which will occur over a period a less than 18 months in each instance – Ledium-high.  Independent of the season of the period of the season of the season of the period of the season of the s



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Not located within a National or Local landscape designation.	location of both OWFs on the skyline in	
	LANDMAP visual and sensory evaluation – high	this view assists with this perceived	
	Likely to be locally valued as the outlook from this section of the coast.	integration. The GyM WTGs are both smaller in scale than the AyM WTGs and	
	Susceptibility to change: Medium-high	are further away from this viewpoint than	
	The view is representative of receptors visiting, walking or cycling along this coastal route.	Rhyl Flats OWF and are seen across parts of the horizontal field of view affected by	
	Also representative of the views gained by users of the rail line and properties along the coastal edge of the settlement where they have open sea views.	Rhyl Flats and AyM WTGs in turn. The incidence of the jacket foundations supporting some of the closest WTGs is noticeable above the sea surface in this	
	Views out to sea are part of the visual setting for these receptors.	view.	
	This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).	The combined horizontal field of view of OWF is approximately 89 degrees	
	Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a moderate distance and context and current outlook towards the AyM array area contains development features including operational OWF.	although some are distant and much smaller than AyM WTGs. This indicates that AyM adds an additional 35 degrees to the OWF extents across a wide sea	
	Sensitivity: Medium-high - taking account of the assessed medium	view (and coastal edge).	
	value of the viewpoint and the medium-high susceptibility to the proposed change to it.	The AyM array area is seen to connect with the coast at a point where it is highly developed.	
		The separation of the WTGs from the coast at Colwyn Bay by an expanse of water and the potential to see the sea and sky between the WTGs set within a large expanse of seascape that is characterised by existing OWFs and influenced by coastal development are	
		factors that assist in increasing the capacity of this view to accommodate AyM.	
		View of WTG MDS A arrangement is inconsistent across the array area with some distinctive rows and gapping in the eastern part and more consistently	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		arranged WTGs in other parts of the array. This does however emulate the pattern of WTG visibility seen across GyM OWF.	
		Operation (MDS B): Medium-high	
		Movement and structures of 50 WTGs visible as prominent elements on the open seascape on and close to the horizon at a range of 14.1 km; this marks a reduction from 91 turbines visible at the PEIR stage n response to stakeholder feedback.	
		2 OSPs visible amongst the WTGs.	
		WTGs theoretically visible across a wider extent of the horizontal field of view to the east when compared with MDS A where the WTGs overlap with those of Rhyl Flats.	
		The westernmost WTG will be almost totally screened by the intervening buildings at Rhos Point. The AyM WTGS will be seen partly in the vicinity of but also extending the existing, Rhyl Flats and GyM OWFs. The eastern part of the AyM array area WTGs appear similarly scaled and spaced to the closer Rhyl Flats WTGs, although they are further away. The location of both OWFs on the skyline in this view assists with this perceived integration. The GyM WTGs are both smaller in scale than the AyM WTGs and are further away from this viewpoint than Rhyl Flats OWF and are seen across parts of the horizontal field of view affected by	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		The incidence of the jacket foundations supporting some of the closest WTGs is noticeable above the sea surface in this view.	
		The combined horizontal field of view of OWF is approximately 89. This indicates that AyM adds an additional 37 degrees to the OWF extents across a wide sea view.	
		The AyM array area is seen to connect with the coast at a point where it is highly developed.	
		The separation of the WTGs from the coast at Colwyn Bay by an expanse of water and the potential to see the sea and sky between the WTGs set within a large expanse of seascape that is characterised by existing OWFs and influenced by coastal development are factors that assist in increasing the capacity of this view to accommodate AyM.	
		View of WTG MDS B arrangement is inconsistent across the array area with some distinctive rows and gapping in the eastern part and more consistently arranged WTGs in other parts of the array. This does however emulate the pattern of WTG visibility seen across GyM OWF.	
		Mitigation measures	
		As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced its horizontal extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
37: Cefn Coch Stone Circle	Located within the Coastal Landscape Unit (Penmaenmawr to Llanfairechan.	Construction/ Decommissioning: Negligible to Medium-low	Construction/ Decommissioning  Minor effect (Non-significant), adverse,
	This viewpoint is located on a west to east running section of the WCP.  This is a part of the WCP where there is an option to take this more remote upland route or the route along the coast alongside major	Activity within the array area at 21.4 km and vessel movements intensified in the vicinity during early stage construction	short-term temporary during early stages of construction phase and latter stages of decommissioning phase.
tr Ti n P So V Ice ri Ti o Ice o Si Si Li tr C tr C Si Si Si Si Si Si Si Si Si Si Si Si Si	transport infrastructure and settlement.  This upland area to the east of Lanfaerfechan and west of Conwy has numerous connecting routes through open access land and along PRoW (including the North Wales Path).	work which is largely below sea surface or of limited extent – Negligible.  Visibility of WTG structures as they are constructed/ commissioned or	Moderate effect (Significant), adverse, short-term temporary during latter stages of construction phase and early stages of decommissioning.
	Parts of the WCP route are separated from the coast by small hills and some of these have been extensively quarried. This has the effect that views out to sea and the coastal landscape are less influential than the landscape to the south where there are views across the SNP to the ridge at Tal y Fan.	Operation (MDS A): Medium-low  Movement and structures of 34 WTGs visible as prominent elements within the seascape, close to the horizon at a range of 21.6 km; this marks a reduction from 48 turbines visible at the PEIR stage in response to stakeholder feedback. 2 OSPs visible amongst these.	decommissioning.  Operation (MDS A)  Moderate effect (Significant), adverse, long term, reversible.  Likelihood of effect
	This area is also rich with cultural heritage interest and the Stone Circle at Cefn Coch is one such area of interest along the WCP and the location for this viewpoint which coincides with a location where there are views out to sea.		Requires Very Good or Excellent visibility.  Visibility frequency at this range: 68%.  Occurs most frequently in Summer.
	To the north-east the views extend out over rugged, grass and heather moorland covered, undulating landform to include the seascape across approximately 90 degrees of the field of view. This includes the Great Orme (with built development visible at its base and on the summit) and parts of the coastal settlement around Llandudno, Llandudno Junction set around areas of lower landform. The views to the north-east also include pole mounted transmission lines.		
	OWFs are a feature of the seascape in the views to the north-east with the closest being Rhyl Flats at 20.6 km and Gwynt- y- Mor stretching across the widest field of view at a range of 26.3 km. North Hoyle and Burbo Bank and Extension are also seen across the sea skyline at greater distances.	WTGs of GyM.  The WTGs extend across the seascape behind the Great Orme and to either side of it.  The OWF is largely associated with parts of the view that have apparent	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Operational OWF development is seen across approximately 29 degrees of the field of view.  Views in other directions from this viewpoint are somewhat foreshortened by the containing landform around the stone circle. The summits of hills that lie within the SNP are just visible above and to the south.  This area of upland has some sense of relative remoteness, however this is moderated by the ease of access from and proximity to settlement and other infrastructure.  Value of view: Medium-high  Not located within a National or Local landscape designation.  LANDMAP visual and sensory evaluation – high  Close to SNP and likely to be locally valued as a rural setting for recreational activity and cultural heritage features.  Susceptibility to change: Medium  Receptors are people walking with a focus on reaching the elevated area for exercise and to obtain the varied views. They are transient so views from this location will be relatively short in duration.  This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a moderate distance and current outlook towards the AyM array area contains some development features, including operational OWF.  Sensitivity: Medium-high - taking account of the assessed medium-high value of the viewpoint and the medium susceptibility to the proposed change to it.	development characteristics and it sits beyond the Great Orme and the developed coastline of Llandudno. It therefore does not encroach on the less developed, more remote uplands that form the immediate setting of this part of the WCP and area around the stone circle.  WTGs appear smaller in height compared to the landform of the Great Orme, however the operational turbines and buildings at Llandudno and on the Great Orme itself provide scale comparisons that indicate the large size of the WTGs.  View of WTG MDS A arrangement relatively consistent across the array area.  The large scale and simple seascape backdrop that is partially characterised by operational OWFs and coastal settlement are factors that assist in increasing the capacity of this view to accommodate AyM.  Mitigation measures  As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced its horizontal extents within the view as well as the WTG numbers.  Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change	
59: Llandundo promenade - lifeboat slipway	Located within the Great Orme and Creuddyn Peninsula landscape unit.	assessed in the PEIR.  Construction/ Decommissioning: Low- Medium  Activity within the array area at 11.7 km and vessel movements intensified in the	Construction/ Decommissioning  Moderate-Minor effect (Non-significant), adverse, short-term temporary during



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Llandudno is in SCA A - Llandudno Bay with wider seascape views encompassing SCA B – Colwyn Bay and SCA F – North Wales Open Waters.	vicinity during early stage construction work which is largely below sea surface or of limited extent – Low.	early stages of construction phase and latter stages of decommissioning phase.  Moderate effect (Significant), adverse,
	The viewpoint is located on the lifeboat launch ramp near to the wide promenade in Llandudno. The curved Llandudno Bay has a long beach popular with visitors and also visible in the view.	Visibility of WTG structures as they are constructed/ commissioned or dismantled which will occur over a period	short-term temporary during latter stages of construction phase and early stages of decommissioning.
	Sea views extend across approximately 80 degrees of the field of view within the bay. The sea horizon is contained to the west by the Grand Hotel on the edge of the Great Orme and the structure of the pier and to the east by Little Orme. It extends across approximately 60 degrees	of less than 18 months in each instance – Medium.  Operation (MDS A): Medium  Movement and structures of 22 WTGs	Operation (MDS A)  Moderate effect (Significant), adverse, long term, reversible.
	of the field of view.  OWFs are a feature of the seascape in the views to the north-east with the closest being Rhyl Flats at 11 km and Gwynt- y- Mor stretching across the widest field of view at a range of 16.4 km with further OWF beyond these.	theoretically visible as prominent elements on the open seascape on to the horizon with the other 12 screened by behind the landform of the Great Orme.  The majority of the WTGs that are	Likelihood of effect  Requires Good, Very Good or Excellent visibility.  Visibility frequency at this range: 87%.
	Burbo Bank and its extension and North Hoyle OWF seen in a similar part of the view to Rhyl Flats OWF.	theoretically visible would be located behind the pier, slide or buildings so that	Occurs most frequently in Summer but also in Winter.
	Operational OWF development is seen across approximately 37 degrees of the field of view.	in actuality they would be fully or partially screened/ filtered. Five WTGs in the MDS A layout would be visible in open water	
	The inland parts of the view include the curved sea-frontage of three to five storied buildings, which are mostly associated with the tourist industry but also including the Venue Cymru events centre to the east.	to the east of the pier.  The scale of the pier and its pagodas appears similar to the much more distant	
	The land between the sea wall and these buildings is given over to a road (The Parade and Saint George's Crescent) and a wide promenade, which is the route of the WCP and NCR 5, with numerous benches and small pavilions sited to encourage views out to sea.	turbines from this location. The incidence of the turbine blades moving above the structure of the pier may at times cause some visual confusion between these	
	At the end of the Parade is an area of gardens, a war memorial an amusement park and further accommodation, including the large-scale Grand Hotel. An area of amusement arcade buildings and rides including a tall slide can be see close to the southern end of the pier.	overlapping structures. However, for the most part the more distant turbines would be seen to recede against the sky backdrop compared with the more solid	
	Buildings can be seen rising up the slopes of the Great Orme.  The Orme itself is a feature of the views from Llandudno and it provides	and darker structure of the closer pier structure ensuring that their separateness	
	the settlement with a strong sense of place. From this angle, however, the scale and form of the Great Orme is not as prominent as from other	is made clear.  2 OSPs visible amongst WTGs.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	locations. The contrast between its developed and wooded and developed southern end and the markedly, striped strata of the higher slopes adds to its interest.  To the east of the viewpoint Little Orme appears as cliff faces rising out of the sea. Its steep slopes and rugged summit provides a sense of impenetrability that contrasts with the accessibility of the Great Orme.  Further houses are seen at its foot with residential development extending inland between an area of open grassland and rising wooded slopes.  Value of view: Medium  Not located within a National or Local landscape designation.	AyM WTGs visible in the vicinity of and extending the existing, but apparently smaller and more densely spaced, operational WTGs of GyM.  The AyM WTGs would appear approximately twice as tall as the closer proximity Rhyl Flats WTGs. The combined horizontal field of view of OWF is approximately 62 degrees (partly behind pier), which is a large proportion of the sea skyline.  The full extent of the OWF array does not	
	LANDMAP visual and sensory evaluation – high.  Likely to be locally valued as part of the setting to the town.  Susceptibility to change: Medium-high  The view is representative of receptors in the vicinity of the	extend fully to Little Orme at the other side of the bay leaving an area of open sea skyline of approximately 15 degrees of the field of view.	
	promenade, slipway, gardens and war memorial.  Also representative of the views gained by residents/ visitors to accommodation in this part of Llandudno.  Views from this location are likely to be part of intended experience,	The separation of the WTGs from the coast by an expanse of water and the potential to see the sea and sky between the WTGs set within a large expanse of seascape that is characterised by existing	
	with the facilities offered also being a key part of the attraction.  Views out to sea, across the Bay are a key part of the visual setting of Llandudno.  This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).	OWFs and influenced by coastal development are factors that assist in increasing the capacity of this view to accommodate AyM.  Mitigation measures	
	Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a moderate distance and context and current outlook towards the AyM array area contains development features including operational OWF.  Sensitivity: Medium-high - taking account of the assessed medium value of the viewpoint and the high susceptibility to the proposed change to it.	As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced its horizontal extents within the view as well as the WTG numbers. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	



#### Llanfairfechan

- 812 Llanfairfechan is a town on the North Wales coast adjoining Conwy Bay in Conwy. Lying between Penmaenmawr and Bangor, the town lies on the key distributor route of the dualled A55. The town has a railway station on the North Wales Coast Line.
- 813 Llanfairfechan is a small but typical Victorian seaside resort with a promenade, pavilion, beach shops and entertainment. Its key features are its long, wide and sandy beach and the dramatic setting provided by Penmaenmawr Mountain. The town is a popular location for sailing, windsurfing and bird watching.
- There are a small number of properties on the north side of the A55 and rail line and to the north-east of the village that have views out to sea. However, the majority of the residential part of the settlement is located on the south side of these routes, which are raised above the existing ground level on embankment or retaining structures. The southern part of the settlement is connected to the north and coast via an underpass and has very limited visual association with the sea.
- Viewpoint 11 and the assessment of the effects on Section J of the Wales Coast Path consider the effects on the coastal, recreational parts of the settlement.
- 816 **Value of views: Medium-high.** The settlement is not within a National or Local landscape planning designation. SNP and IoA form parts of its wider setting and views.
- Susceptibility to change: Medium-high for seaside properties low for those without direct views across the sea. People living in settlements tend to be susceptible to changes in views from their homes and frequently visited locations. The orientation of the seaside part of the settlement and the containment provided by the surrounding landform are such that views from that smaller part of the residential area are often towards the AyM array area to the north-west.



- Views from locations within the settlement where it is set away from the coast or to the south of the A55 are of lower susceptibility due to their general lack of association with the seascape. Where taller buildings allow people to gain visibility over the infrastructure, they have a lower susceptibility due to the urban context of the views towards the AyM array area.
- Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 22.5 km and the developed context of any views towards it.
- Sensitivity to change: Medium-high for seaside properties, low for those without direct views across the sea. This takes account of the assessed medium-high value of the views and the medium-high or low susceptibility to the proposed change to them.

- Figures 18.1b and 18.2b (Annex 10.5) illustrate the blade tip and hub height ZTV at Llannfairfechan. This shows theoretical visibility of parts of 31-40 turbines across the settlement. Open views from Llannfairfechan are illustrated by Viewpoint 11 (Annex 10.6). It shows open views towards the AyM array area in its open seascape from the promenade. This represents the visibility that would be gained from a relatively small number of properties but also some of the visitor amenities along the seafront, which are an important component of the settlement.
- 822 Viewpoint 11 is not similar to the majority of views that would be obtained from the majority of the settlement of Llandfairfechan. These would be markedly more limited due to the intervening screening provided by buildings, built structures and woodland. In addition, the magnitude of change is moderated in any views from the wider settlement which would have a wider context and foreground that contains some form of development.
- 823 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Medium for seaside properties, low or negligible for those without direct views across the sea.



- 824 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant), adverse, short-term temporary for seaside properties. Minor effect (Non-significant) elsewhere within the settlement.
- Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible for seaside properties. Minor effect (Non-significant) elsewhere within the settlement.

#### Penmaenmawr

- The town of Penmaenmawr lies on the North Wales coast between Conwy and Llanfairfechan, within Conwy. Penmaenmawr lies on a small coastal plain facing Conwy Bay and the Irish Sea. The headland of Penmaen Mawr separates Penmaenmawr from neighbouring Llanfairfechan, to the west. The A55/ North Wales Expressway bypasses the town.
- Named after Penmaenmawr mountain, above the sea immediately west of the town, Penmaenmawr was an important quarrying town. Notable for its easy access to spectacular mountain and coastal walks, the town lies partly within Snowdonia National Park and popular attractions nearby include Bwlch Sychnant (Sychnant Pass) and Mynydd y Dref.
- 828 **Value of views: Medium-high.** The settlement is not within a National or Local landscape planning designation. SNP lies just to the south and this along with IoA AONB form parts of its wider setting and views.
- 829 Susceptibility to change: Medium.



- People in settlements tend to be susceptible to changes in views from their homes and frequently visited locations. The orientation of the settlement is towards the north-north-west however, properties and the sea frontage at the station would have views out across Conwy Bay, channelled by the landform of Anglesey and particularly towards the Great Orme and the open sea horizon in the direction of the AyM array area to the north.
- 831 Much of the residential part of the settlement is separated from the A55 Expressway by a band of woodland and this in turn provides some screening of the seascape from locations within the town. However, there are also some tall, flatted developments and properties on higher ground that have visibility over and between areas of woodland and out to sea.
- Views from locations within the residential parts of the settlement where it is set away from the coast to the south of the A55 are of lower susceptibility due to their lesser association with the seascape and the urbanised nature of their foreground. Where taller buildings allow people to gain visibility over the infrastructure and woodland, they have a lower susceptibility due to the urban context of the views towards the AyM array area.
- 833 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 20.5 km and the partially developed context of any views towards it.
- 834 **Sensitivity to change: Medium-high -** taking account of the assessed medium-high value of the views and the medium susceptibility to the proposed change to them.

Figures 18.1b and 18.2b (Annex 10.5) illustrate the blade tip and hub height ZTV at Penmaenmawr. This shows theoretical visibility of parts of 8-21 turbines across the settlement. There is no viewpoint at Penmaenmawr. The closest is at Llannfairfechan which are illustrated by Viewpoint 11 (Annex 10.6). It shows open views towards the AyM array area in its open seascape from the promenade.



- The view from Penmaenmawr would have some similarity to this, however the WTGs would be less visible due to more of the eastern part of the AyM array area being screened behind the Great Orme. The WTGs would appear slightly taller from Penmaenmawr due to their closer proximity compared with Viewpoint 11. This represents similar visibility that gained from some properties, however, none of the properties would have visibility of the AyM OWF that does not include a foreground context that includes large-scale infrastructure and a wider context of the urban area.
- 837 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Medium

- 838 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant), adverse, short-term temporary.
- 839 Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible.

# Dwygfylchi

- Dwygfylchi lies on the North Wales coast between Penmaenmawr and Conwy, to the west and east, respectively. It is a village in Conwy, divided from Conwy Morfa by the rugged headland of Penmaen Bach. The eastern and southernmost parts of Dwygyfylchi lie within the northern tip of the SNP. The A55/ North Wales Expressway is the only major road connected to the town. This along with the rail line run between the settlement and the coast.
- The picturesque Bwlch Sychnant (Sychnant Pass) connects Dwygyfylchi to Conwy. Capelulo lies at its foot half a mile south-east of the main village. The Pensychnant Conservation Centre and Nature Reserve is nearby.



- 842 **Value of views: High.** The settlement is partly within the SNP which lies to the south. This along with IoA AONB form parts of wider setting and views from Dwygfylchi.
- 843 Susceptibility to change: Medium.
- People in settlements tend to be susceptible to changes in views from their homes and frequently visited locations. The orientation of the settlement is towards the north-north-west however properties and the sea frontage at the station would have views out across Conwy Bay are channelled by the landform of Anglesey and the Creuddyn peninsula, particularly towards the Great Orme and the open sea horizon in the direction of the AyM array area to the north.
- The settlement is set back from the coast and is located on the southern side of the A55 Expressway with it in the foreground of views out to sea which are available from the most northerly houses. The Expressway is often separated from the settlement by a strip of shrub planting which provides some screening of the Expressway itself.
- Views from locations within the settlement where it is set away from the coast are of lower susceptibility due to their lesser association with the seascape and the urbanised nature of their foreground. Where taller buildings allow people to gain visibility over the infrastructure and woodland, they have a lower susceptibility due to the urban context of the views towards the AyM array area.
- Susceptibility is moderated the relationship of the viewpoint the AyM array area, which is at a distance of 19.5 km and the partially developed context of any views towards it.
- 848 **Sensitivity to change: Medium-high -** taking account of the assessed high value of the views and the medium susceptibility to the proposed change to them.



- Figures 18.1b and 18.2b (Annex 10.5) illustrate the blade tip and hub height ZTV at Dwygfylchi. This shows theoretical visibility of parts of between 1 and 14 WTG blade tips across the settlement; this marks a reduction from 20 turbines visible at the PEIR stage in response to stakeholder feedback. There is no viewpoint at Dwygfylchi. The closest is Viewpoint 60 on the side slopes of Foel Lus. It shows open views towards the AyM array area in its open seascape from the elevated hillside to the south of Dwygfylchi.
- The view from Foel Lus is helpful in showing a similar scale of turbines at a similar range and direction, however a large part of the AyM array area would be screened by the Great Orme in views from the lower elevation at Dwygfylchi. They would become increasingly screened from further north-east in the settlement.
- Open visibility of the AyM OWF would only occur from a small number of properties that front onto the coast above the Expressway. None of the properties would have visibility of the AyM OWF that does not include a foreground context that includes large-scale infrastructure and a wider context of the urban area.
- 852 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Medium-low

## Significance of effect

- 853 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant), adverse, short-term temporary.
- 854 Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible.



#### Llandudno

- 855 Llandudno is in Conwy, located on the Creuddyn peninsula on the North Wales coast, which protrudes into the Irish Sea. Uniquely located between the Great and Little Ormes, the town lies on the A546 and the A470 connects it to the A55/ North Wales Expressway. The town is just off the North Wales Coast railway line with a branch railway line from Llandudno Junction and stations at Deganwy and Llandudno.
- 856 Built as a holiday destination during the mid-Victorian era Llandudno retains its Victorian and Edwardian quality and is Wales' largest seaside resort town. The town has a multitude of hotels, traditional B&Bs and its attractions include two beaches: the award-winning North Shore and West Shore. Bus services link it to Rhyl, Bangor and Caernarfon and buses also go to The Great Orme Summit which is host to numerous other visitor attractions.
- 857 Viewpoints 18, 59 and 61 (Annex 10.6) are located at the eastern, western and central parts of the coastal area of the settlement respectively.
- 858 Value of views: Medium-high. The settlement is not within a National or Local landscape planning designation. Views are locally valued as part of the settling of the town. The Victorian parts of the settlement are a Conservation Area and the Great Orme, which forms part of Llandudno's setting, is a Heritage Coast and is in the Great Orme and Creuddyn Peninsula SLA.
- 859 **Susceptibility to change: Medium-high.** People in settlements tend to be susceptible to changes in views from their homes and frequently visited locations. This will also apply to the numerous properties providing accommodation.



- The orientation of the settlement is varied. The important, tall, bay frontage is generally perpendicular to the north-north-east with a greater extent of the frontage having their main aspects to the north-east and the eastern, more modern section to the east having their facades facing north. There are also properties on the south-eastern edge of the Great Orme and spreading back across the peninsula to the west coast.
- The majority of Llandudno will have no visibility of the AyM array area due to intervening built form and landform.
- Views from Llandudno Bay are contained and channelled out to sea by the Great Orme and Little Orme. Views from the west of the bay are focussed on Little Orme and views from the eastern parts of the bay on the Great Orme.
- Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 11.7 km from the AyM array area and the partially developed context of any views towards it, which include operational OWF development.
- 864 **Sensitivity to change: Medium-high -** taking account of the assessed medium-high value of the views and the medium susceptibility to the proposed change to them.

- Figures 18.1b and 18.2b (Annex 10.5) illustrate the blade tip and hub height ZTV at Llandudno. This shows varied theoretical visibility across the settlement and no visibility along the southern edge of the Great Orme.
- 866 However, actual visibility from the settlement would not follow the pattern of theoretical visibility. Due to the scale and almost continuous frontage of the properties along the bay they would prevent visibility from locations that are not on the bay itself or where located at a short distance back from it up the side streets.



- Viewpoint 18 (Annex 10.6) at the paddling pool represents views from the far eastern extent of the bay and the magnitude of change is assessed as medium-high. Views of the AyM OWF from the western part of the bay at the slipway near the war memorial (Viewpoint 59, Annex 10.6) are assessed as having a medium magnitude of change.
- 868 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Mediumhigh in the east of the bay and Medium reducing to no change in the west of the bay. Elsewhere in Llandudno the magnitude of change would be low or no change.

- 869 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate effect to Moderate-Major effect (Significant), adverse, short-term temporary along the bay frontage. Minor effect (Non-significant) elsewhere.
- 870 Operation (MDS A): Moderate effect to Moderate-Major effect (Significant), adverse, long term, reversible along the bay frontage.

  Minor effect (Non-significant) elsewhere.

## Penrhyn Bay

# Baseline description and sensitivity

871 Penrhyn Bay lies between Llandudno and Colwyn Bay on the north coast of Wales, in Conwy. A small coastal village, lying east of the Little Orme, it forms a residential suburb of Llandudno. Penryhn Bay adjoins the resort of Rhos-on-Sea to the south, covers a large part of the Creuddyn peninsula and is connected to Colwyn Bay and Llandudno by the B5115. From the village the A546 runs along the west side of the Creuddyn Peninsula to Llandudno Junction. Houses are generally single or two storied.



- 872 **Value of views: Medium.** The settlement is not within a National or Local landscape planning designation. Views are locally valued as part of the setting of the town and include the Little Orme which is in the Great Orme and Creuddyn Peninsula SLA.
- 873 **Susceptibility to change: Medium-high.** People in settlements tend to be susceptible to changes in views from their homes and frequently visited locations.
- The main orientation of the bay and the properties along it is to the north-east, however, there is a slight slope south-east from Little Orme, which also influences the direction of views. The majority of Penrhyn Bay will have limited or no visibility of the AyM array area due to intervening built form and landform.
- 875 Views from Penrhyn Bay are contained and channelled out to sea to a degree by Little Orme and Rhos Point. Views from the west of the bay are focussed on Rhos Point and from the south, north towards Little Orme.
- The majority of the properties are low and those to the north have their rear aspects and gardens facing towards the sea.
- 877 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 11 km and the partially developed context of any views towards it, which include operational OWF development.
- 878 **Sensitivity to change: Medium-high -** taking account of the assessed medium value of the views and the medium-high susceptibility to the proposed change to them.

879 Figures 17.1b and 17.2b (Annex 10.5) illustrate the blade tip and hub height ZTV at Penrhyn Bay. This shows varied theoretical visibility across the settlement and no theoretical visibility from south of Little Orme.



- 880 However, actual visibility from the settlement would not follow the pattern of theoretical visibility. The sea front properties and those set slightly back from the coast along routes that extend inland would gain visibility of the AyM OWF, however views from other properties would be largely unaffected or would gain visibility of the AyM OWF over or through a foreground of urban development.
- Properties located on higher ground to the west of the settlement towards Penrhyn-side are not within the ZTV due to the intervening landform of Little Orme.
- Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Mediumhigh along the sea front properties and from those immediately inland in Penrhyn Bay where there are open views towards the AyM OWF. Elsewhere in Penrhyn Bay the magnitude of change from residential properties would be low or no change.

- 883 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate-Major effect (Significant), adverse, short-term temporary along the bay frontage and properties immediately inland. Moderate-Minor to Minor effect (Non-significant) elsewhere.
- Operation (MDS A): Moderate-Major effect (Significant), adverse, long term, reversible along the bay frontage and properties immediately inland. Moderate-Minor to Minor effect (Non-significant) elsewhere.

#### Rhos-on-Sea

#### Baseline description and sensitivity

The seaside village of Rhos-on-Sea lies across a minor, raised headland to the west of the town of Colwyn Bay on the North Coast of Wales, in Conwy. The A55/ North Wales Expressway and the A547 linking it to Conwy and Prestatyn pass by its southern edge.



- Rhos-on-Sea is named after the Welsh kingdom of Rhos, established in late Roman Britain, and notable for historic sites associated with St Trillo and Ednyfed Fychan, the councillor to Llywelyn the Great. Attractions at Rhos-on-Sea include the beach, the shopping area and its cafes and restaurants. The area also includes the Welsh Mountain Zoo, a leisure centre at Eirias and several golf courses.
- There is a variety of buildings along the seafront including modern flats of up to five storeys, bungalows and contemporary houses. They face out to sea across Marine Drive.
- 888 Elsewhere within the settlement the housing is largely single and two storeys with a small number of three and four storey flatted developments close to the village centre. Low density housing extends up the lower side slopes of Bryn Euryn (Viewpoint 20 Annex 10.6). The flats and housing at slightly higher elevations as well as properties that have a foreground of open space have opportunities for views out to sea.
- 889 **Value of views: Medium.** The settlement is not within a National or Local landscape planning designation. Views are locally valued as part of the setting of the town, and some include the Little Orme which is in the Great Orme and Creuddyn Peninsula SLA.
- Susceptibility to change: Medium-high. People in settlements tend to be susceptible to changes in views from their homes and frequently visited locations. The main orientation of the properties round the headland is to the north or east. The majority of Rhos-on-Sea will have limited or no visibility of the AyM array area due to intervening built form.
- 891 Views from Rhos-on-Sea are panoramic with little containment by the coastal landforms of the wider view.
- 892 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 12 km from the AyM array area and the partially developed context of any views towards it, which include operational OWF development.
- 893 **Sensitivity to change: Medium-high -** taking account of the assessed medium value of the views and the medium-high susceptibility to the proposed change to them.



- 894 Figures 17.1b and 17.2b (Annex 10.5) illustrate the blade tip and hub height ZTV at Rhos-on-Sea. This shows theoretical visibility of 29-34 WTGs across much of the settlement.
- 895 However, actual visibility from the settlement would not follow the pattern of theoretical visibility. The sea front properties would gain open views of the AyM OWF, however views from other properties would generally unaffected. This is with the exception of the properties that are on slightly higher ground to the south, the upper floors of the flatted developments and where there is alignment of the views from properties within the settlement across open spaces or along open channels created by roads.
- 896 Viewpoint 19 (Annex 10.6) is located at Rhos-on-Sea and illustrates the view of the AyM OWF from the frontage properties.
- 897 Views from properties further back within the settlement may have visibility of the AyM OWF as part of the seascape backdrop above and between urban development which reduces the magnitude of change from such locations.
- Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Mediumhigh from the north facing sea front properties in Rhos-on-Sea. From the properties that gain elevated or open views of the AyM OWF from within the urban area the magnitude of change would be medium or mediumlow. Elsewhere in Rhos-on-Sea the magnitude of change would be low or no change.
- Significance of effect Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate or Moderate-Major (Significant), adverse, short-term temporary along the north facing Rhoson-Sea frontage and from the properties that gain elevated or open views of the AyM OWF from within the urban area. Minor effect (Non-significant) elsewhere.



Operation (MDS A): Moderate or Moderate-Major (Significant), adverse, long term, reversible along the north facing Rhos-on-Sea frontage and from the properties that gain elevated or open views of the AyM OWF from within the urban area. Minor effect (Non-significant) elsewhere.

#### Colwyn Bay

- of Wales. The town lies on the A55/ North Wales Expressway and the A547 links it to Conwy and Prestatyn. Colwyn Bay is notable for its long, sweeping promenade from Old Colwyn to Penrhyn Bay. This provides access to the beach and slipways along the promenade enable fishing, sailing, and jet skiing in the area. The redeveloped promenade's wide walkway has refreshment kiosks and continues to Rhos-on-Sea. Colwyn's other attractions include the shopping area and its cafes and restaurants.
- The properties along the frontage are varied and include six storey modern flats to more traditional bungalows and villas.
- 903 The southern part of the town along with Old Colwyn to the east are separated from the coast by the A55/ North Wales Expressway and the rail line. Properties there generally back onto these routes and have little visual relationship with the sea.
- Residential properties within the town centre include modern and traditional flats. It is likely that the upper stories of these properties will have views out to sea.
- onto higher ground to the south. The older housing is well spaced with established tree planting whilst the more modern areas are higher density and tend to have less in the way of vegetation. The orientation of the slopes is in a north to north-north-easterly direction and many of the higher connecting roads follow this alignment so that properties tend to have some orientation in these directions and views out to sea.



- The northern part of the settlement merges into Llandrillo-yn-Rhos and properties there face broadly in a north-east direction out to sea across West Promenade.
- 907 The effects on the views from the open beach area and visitor attractions are assessed in relation to Viewpoint 29 and Section O of the Wales Coast Path.
- 908 **Value of views: Medium.** The settlement is not within a National or Local landscape planning designation. Views are locally valued as part of the setting of the town.
- Susceptibility to change: Medium-high. People in settlements tend to be susceptible to changes in views from their homes. The main orientation of the properties with sea views round the bay is to the north-east. The majority of Colwyn Bay will have limited or no visibility of the AyM array area due to intervening built form.
- 910 Views from Colwyn Bay are panoramic with some containment to the north by Rhos Point.
- 911 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 13 km from the AyM array area and the partially developed context of any views towards it, which include operational OWF development.
- 912 **Sensitivity to change: Medium-high -** taking account of the assessed medium value of the views and the medium-high susceptibility to the proposed change to them.



- 913 Figures 17.1b and 17.2b (Annex 10.5) illustrate the blade tip and hub height ZTV at Colwyn Bay. This shows theoretical visibility of 29-34 WTGs across much of the settlement; this marks a reduction from 34 WTGs visible at the PEIR stage in response to stakeholder feedback. However, actual visibility from the settlement would not follow the pattern of theoretical visibility. The sea front properties would gain open visibility of the AyM OWF and elevated properties set back from the coast within the town within flats and on higher slopes would gain visibility above and between the intervening urban area. However, views from other properties would be largely unaffected.
- 914 Viewpoint 29 (Annex 10.6) is located at Colwyn Bay and illustrates the view of the AyM OWF from there.
- 915 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Mediumhigh from the sea facing properties along the promenade in Colwyn Bay and from the properties that gain elevated or open views of the AyM OWF from within the urban area the magnitude of change would be medium or medium-low. Elsewhere in Colwyn Bay the magnitude of change would be lower or no change.

# Significance of effect

- 916 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate or Moderate-Major (Significant), adverse, short-term temporary from the sea facing properties along the promenades in Colwyn Bay and from the properties that gain elevated or open views of the AyM OWF from within the urban area of Colwyn Bay. Minor effect (Non-significant) elsewhere.
- Operation (MDS A): Moderate or Moderate-Major (Significant), adverse, long term, reversible from the sea facing properties along the promenades in Colwyn Bay and from the properties that gain elevated or open views of the AyM OWF from within the urban area of Colwyn Bay. Minor effect (Non-significant) elsewhere.



#### Llanddulas

- P18 The village of Llanddulas lies midway between Old Colwyn and Abergele in Conwy, on the north coast of Wales. The main industry of the village was quarrying of limestone, and it lies beneath Cefn-yr-Ogof, a limestone hill. The village lies on the A55/ North Wales Expressway in the community of Llanddulas and Rhyd-y-Foel. The A547 links it to Conwy and Prestatyn.
- 919 Llanddulas is notable as the place where Richard II was betrayed in 1399, as the birthplace of Lewis Valentine and for the Llanddulas Limestone and Gwrych Castle Wood Site of Special Scientific Interest.
- P20 Llanddulas itself is separated from the coast by the A55/ North Wales Expressway and a large swathe of land accommodating various caravan and holiday park developments. These are also separated from the coast by the rail line and planting along it. There is access from the settlement to the coast where there is parking but little in the way of other amenities. The coast is characterised by defences against flooding and erosion.
- 921 Llandulas extends up the hillside to the south so that elevated views overlooking the sea to north are possible from the hill area of the settlement. The orientation of the slopes and the predominant views of the properties is to the north-north-east towards the operational OWFs.
- 922 **Value of views: Medium.** The settlement is not within a National or Local landscape planning designation. Views are locally valued as part of the setting of the town.
- 923 **Susceptibility to change: Medium-high.** People in settlements tend to be susceptible to changes in views from their homes. The main orientation of the properties with sea views is to the north and north-east where sea views are over intervening urban areas, infrastructure and caravan parks.



- Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 15.8 km and the partially developed context of any views towards it, which include operational OWF development.
- 925 **Sensitivity to change: Medium-high -** taking account of the assessed medium value of the views and the medium-high susceptibility to the proposed change to them.

- 926 Figures 17.1b and 17.2b (Annex 10.5) illustrate the blade tip and hub height ZTV at Llandulas. This shows theoretical visibility of 29-34 WTGs across much of the settlement at a range of approximately 16 km; this marks a reduction from 48 WTGs visible at the PEIR stage in response to stakeholder feedback. However, actual visibility from the settlement would not generally follow the pattern of theoretical visibility as some views from within the settlement would be restricted or influenced by intervening properties and infrastructure.
- There are no viewpoints in Llanddulas. Viewpoint 21: Mynydd Marian is located on a higher slope at a similar range. It provides some indication of the scale of the AyM OWF in views across an urban context, although, views from Llandulas would have less of an open outlook across the sea but instead properties will have sea as a backdrop to views over and between the urban area. The views towards the AyM OWF are slightly further to the north and north-north-east than the main view orientation of the majority of the properties, however it may still be part of the wider sea views.
- 928 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Medium-low from the sea facing properties on elevated high ground. Elsewhere the magnitude of change low or negligible.



- 929 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant), adverse, short-term temporary from the properties orientated to the north over the seascape on elevated high ground. Minor effect (Non-significant) elsewhere.
- 930 Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible from the properties orientated to the north over the seascape on elevated high ground. Minor effect (Non-significant) elsewhere.

## Abergele and Pensarn

- Abergele lies on the north coast of Wales in Conwy between Colwyn Bay and Rhyl. Abergele is part of the Abergele/Rhyl/Prestatyn urban area. The market town is offset from the coast with its northern suburb of Pensarn lying on the Irish Sea coast. Abergele and Pensarn railway station serves both resorts. The town is well connected by the A547 to Conwy and Prestatyn, and the A548 to Llanrwst and Chester. The A55/North Wales Expressway passes through Abergele/Pensarn. It is located on the North Wales Coast Line with Abergele & Pensarn railway station located in Pensarn. There are numerous areas of static caravan parks and visitor facilities in and around the urban areas and along the coast.
- 1932 Iron Age forts lie on the hills above Abergele, and it was a Roman trading town and medieval marketplace. Abergele was also home to an important Celtic monastery. Modern Abergele and Pensarn grew with the Victorian railway. Attractions include Gwrych Castle, several hillforts, a golf course and several hills with outstanding views: Cefn-yr-Ogof, Tower Hill and Castell Cawr.
- 933 The urban area extends south from the coast initially over relatively flat, low-lying areas. Views out to sea from this northerly area are largely confined to the coastal strip to the north of the rail line and some taller buildings to the north of it that have views out across it.
- The land and settlement rise to the south of the A547 so that glimpses of the sea are possible over and between the intervening urban area.



- 935 Views north over the Irish Sea include operational OWFs with Rhyl Flats seen closest to the shore and GyM extending across the sea horizon beyond.
- 936 To avoid duplication the assessment of the effects on Viewpoint 22 (Annex 10.6) and on Wales Coast Path Section P considers the effects on users of the coastal amenities at Abergele/Pensarn.
- 937 **Value of views: Medium.** The settlement is not within a National or Local landscape planning designation. The Betws yn Rhos SLA forms parts of its wider setting and views inland to the south and west. Views out are a valued aspect of the town's setting.
- Susceptibility to change: Medium for those with some views across the sea. The settlement is set back from the coast by the intervening A55 and/ or the rail line. The majority of the settlement has no views out across the Irish Sea.
- Views from locations within the settlement where it is set away from the coast or to the south of the A55 are of lower susceptibility due to their general lack of association with the seascape. Views from the elevated residential areas to the south are glimpses over intervening urban areas. Where taller buildings allow people to gain visibility over the infrastructure/ settlement they have a lower susceptibility due to the urban context of the views towards the AyM array area.
- Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 17.5 km and the developed context of any views towards it, including operational OWFs.
- 941 **Sensitivity to change: Medium or low/ negligible** taking account of the assessed high value of the views and the medium susceptibility to the proposed change to them.



- 942 Figures 18.1b and 18.2b (Annex 10.5) illustrate the blade tip and hub height ZTV at Abergele/ Pensarn. This shows theoretical visibility of parts of 29-34 turbines across the settlement. Open views from the seafront at Abergele/ Pensarn are shown in Viewpoint 22 (Annex 10.6). It shows open views towards the AyM array area in its open seascape from the promenade. This represents the visibility that would be gained from a relatively small number of properties but also some of the visitor amenities along the seafront, which are an important component of the settlement.
- 943 Viewpoint 22 (Annex 10.6) is not similar to the majority of views that would be obtained from the settlement of Abergele/ Pensarn. These would be markedly more limited due to the intervening screening provided by buildings, built structures and woodland. In addition, the magnitude of change is moderated in any views from the wider settlement which would have a wider context and foreground that contains some form of development.
- 944 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Low for seaside properties, low or negligible for those without direct views across the sea.

# Significance of effect

- 945 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate-Minor effect (Non-significant), adverse, short-term temporary.
- 946 Operation (MDS A): Moderate-Minor effect (Non-significant), adverse, long term, reversible.



#### Towyn and Kinmel Bay

- Towyn and Kinmel Bay are coastal settlements located on the North Wales coast in Conwy between Rhyl, to the east in Denbighshire, and Abergele to the west in Conwy County Borough, to the west of the River Clwyd. The towns are connected to the wider area by the A548 which crosses the hills from Llanrwst to Abergele before following the coast to cross the border into England and ending at Chester. Llandudno and Conwy 15 miles away. Towyn's attractions include Leisure Park and Amusement Park facilities and shopping facilities such as the local Tir Prince Market, one of the biggest outdoor hard ground markets in the region.
- 948 Static caravan and mobile home developments and amenities cover much of the coastal area as well as large inland parcels of land. These extend close to the coast but at Towyn they are separated from the beach area by the rail line. At Kinmel Bay rock areas of sea defences and level changes frequently separate the properties and Wales Coast Path from the beach area.
- The effect on the views from coastal amenities considered in relation to the assessment of effects on the Wales Coast Path Section P.
- 950 **Value of views: Medium.** The settlement is not within a National or Local landscape planning designation. Views out to sea are a valued aspect of the setting of the towns.
- Susceptibility to change: Medium for those places with some views across the sea. The settlement is set back from the coast in places by the intervening rail line, flood defences, strips of sand dunes and a large Asda superstore, however it is possible to gain views from the coastal edge out across the Irish Sea. The majority of the settlement has no views out across the Irish Sea due to the low-lying nature of the towns.
- 952 Views from locations within the settlement where it is set away from the coast or to the south of the rail line/ other development are of lower susceptibility due to their general lack of association with the seascape.



- Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 18 km and the developed context of any views towards it, including operational OWFs.
- 954 **Sensitivity to change: Medium or low/ negligible** taking account of the assessed medium value of the views and the medium to negligible susceptibility to the proposed change to them.

- Figures 18.1b and 18.2b (Annex 10.5) illustrate the blade tip and hub height ZTV at Towyn and Kinmel Bay. This shows theoretical visibility of parts of 29-34 turbines across most of the settlement. There are no viewpoints in Towyn or Kinmel Bay. Viewpoint 22 (Annex 10.6) shows the open views from the seafront at Abergele/ Pensarn and Viewpoint 23 (Annex 10.6) shows the open views from Rhyl towards the AyM array area in its open seascape. These viewpoints provide an indication of the visibility that would be gained from a relatively small number of properties close to the coast but also some of the visitor amenities along the seafront, which are an important component of the settlement.
- 956 Viewpoints 22 and 23 are not similar to the majority of views that would be obtained from the settlements of Towyn and Kinmel Bay. These would be markedly more limited due to the intervening screening provided by buildings and infrastructure and the low-lying nature of the landform and settlement. In addition, the magnitude of change is moderated in any views from the wider settlement which would have a wider context and foreground that contains some form of development.
- 957 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Low for seaside properties low or negligible for those without direct views across the sea.

# Significance of effect

958 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Minor effect (Non-significant), adverse, short-term temporary.



959 Operation (MDS A): Minor effect (Non-significant), adverse, long term, reversible.

## Wales Coast Path Section J - Conwy Bay

- This 12.3 km section is the coastal route between Llanfairfechan and Conwy. From the junction with Village Road, the path follows Penmaenmawr Road through Llanfairfechan. It crosses the A55/ North Wales Expressway and re-crosses after running along the foot of the quarried Penmaen Mawr. To Penmaen bach Point the path runs between the A55/ North Wales Expressway and North Wales rail line, partially on an elevated walkway and bridge points and partially along a segregated path which then recrosses to the coast, then largely follows the coastline to Conwy following the northern edge of the A55 to Conwy Morfa where it hugs the coastline to pass inland of Conwy Quays Marina and crosses the A55/ North Wales Expressway again, onto Moffat Drive.
- This route is largely urban and generally low-lying and convoluted around the other coastal infrastructure. A more rural alternative is offered. Much of it is level as it runs alongside the A55/ North Wales Expressway or North Wales rail line, rising to skirt the foot of Penmaenmawr and Penmaen bach or where it crosses infrastructure over bridges. Northerly views to Conwy Bay predominate and are framed by Anglesey and Great Orme to the west and east, respectively.
- 962 Value of views: Medium. The route does not run within any National or Local landscape planning designations. The eastern section runs close to the SNP, which forms a key part of its setting to the south although the quality of this edge of the SNP has been eroded by the intervening infrastructure.
- Susceptibility to change: Medium. People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods.



- 964 Views out to sea are intermittent along this section of the WCP. The section south and east from Llanfairfechan is partially enclosed until it emerges to offer views out to sea from locations along the upper reaches of Penmaenmawr Road from where it becomes possible to gain views of the sea across the A55/ North Wales Expressway and rail line or from locations on the other side of it.
- 965 Where they are possible views are from a coastline that is extensively developed and there is wider visibility of coagstal settlement. Views out to sea are broadly channelled to the north by landform out across Conwy Bay between Puffin Island and the Great Orme, which provide an attractive seascape context.
- Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 15.5-22.5 km from the AyM array area and the partially urban influence in views toward the AyM array area from the path.
- 967 **Sensitivity to change: Medium** taking account of the assessed medium value of the views and the medium susceptibility to the proposed change to them.

- 968 Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the route. This shows theoretical visibility of parts of 29-34 WTGs across the western section of the route gradually reducing to 1-7 turbines across the section round Penmaen Bach Point, increasing to parts of 15-21 around Conwy Morfa and then reducing to low-levels of theoretical visibility in the approach to Conwy.
- 969 From those stretches of the route where there is open visibility towards AyM OWF it would be seen above and/ or extending to the side of the Great Orme. Actual visibility is likely to be reduced in the easterly section of the route as a result of low-level screening by buildings on the Creuddyn Peninsula.
- 970 Views of the AyM OWF are most likely to be seen by east bound walkers.



971 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Medium at Llanfairfechan reducing to Low-medium.

## Significance of effect

- 972 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate to Moderate-Minor effect (Non-significant), adverse, short-term temporary.
- 973 Operation (MDS A): Moderate to Moderate-Minor effect (Non-significant), adverse, long term, reversible.

# Wales Coast Path Section K - Conwy/ Creuddyn peninsula Baseline description and sensitivity

This 10.6 km section from Conwy runs along the west coast of the Creuddyn peninsula to the café at Great Orme's Head. Turning east from Moffat Drive towards the shoreline, the path goes around the Bodlondeb Council Offices and wood to follow the Conwy estuary's western shoreline. There it joins Lower Gate Street and crosses Conwy Bridge. On the eastern shore of the Conwy estuary, the path turns to follow the coastline behind Deganwy Quay Marina. After a railway crossing, it follows Marine Crescent around Deganwy and continues along the beach below the North Wales Golf Club grounds. The path proceeds onto a promenade through a car park at its southern end, before ascending through Gogarth. The route follows Marine Drive around the foot of Great Orme to its most northerly point at Great Orme's Head.



- P75 Low-lying and urban this section changes to elevated and relatively wild once it starts to ascend along the edge of Great Orme. Much of this section along the Conwy Estuary is level and built up, the stretch around Great Orme providing a long climb along a relatively natural coastline in contrast. Views west over Conwy Bay predominate, enclosed by the hills of the North Wales coast and the flatter southern Anglesey. As the path circumnavigates Great Orme, the visual focus moves from Conwy and Conwy Bay, around to Anglesey and eventually taking in the open lrish Sea.
- 976 Value of views: Medium-high. The route runs through the Great Orme and Creuddyn Peninsula SLA and the northern section also along the Great Orme Heritage Coast.
- 977 **Susceptibility to change: Medium.** People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods.
- 978 Views out to sea are fairly constant along this section of the WCP. Views north are dominated by the Great Orme whilst westerly views are drawn across Conwy Bay.
- 979 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 11-16.5 km from the AyM array area and the partially urban influence in views toward the AyM array area from the path. This is with the exception of the most northerly section of the path where there are few development features visible except for the lighthouse buildings, café and OWF.
- 980 **Sensitivity to change: Medium-high** taking account of the assessed medium-high value of the views and the medium susceptibility to the proposed change to them.

981 Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the route. This shows varied levels of theoretical visibility of up to 15-21 WTGs along a short section of the route and reducing to no visibility along the coast at Llandudno Junction and around the southern edge of the Great Orme.



- In the areas of theoretical visibility actual visibility is likely to be reduced by the intervening, built development on the peninsula. This is with the exception of the 0.8 km section at the head of the Great Orme where the path turns to the north-east and there is shown to be visibility of up to 48 WTGs. The AyM OWF would be seen as part of an expansive view over the seascape from this section of the route and would be seen in the context of the operational OWF.
- 983 Viewpoint 15 (Annex 10.6) illustrates the view at the end of this section and close to the café. Views of the AyM OWF are most likely to be seen by east bound walkers.
- 984 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Medium for 0.8 km section at north-western extent of Great Orme. Low magnitude to no change elsewhere along the route.

- Onstruction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant), adverse, short-term temporary along 0.8 km section at north-western extent of Great Orme. Minor effect (Non-significant) elsewhere along the route.
- Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible along 0.8 km section at north-western extent of Great Orme.

  Minor effect (Non-significant) elsewhere along the route.

#### Wales Coast Path Section L - Great Orme

## Baseline description and sensitivity

987 This 3.7 km section runs from Great Orme's Head to the pier at the western end of Llandudno Bay. From Great Orme's Head it follows the northern coastline of Great Orme on Marine Drive and Happy Valley Road, descending to the western end of Llandudno's promenade, between a cable car station and a pier.



- This section is relatively undeveloped and has some wildness characteristics largely due to the exposure and sheer rocky terrain. There are expansive views north and north-east across the Irish Sea from the elevated road around the peninsula. Views east and south include OWFs and the settled North Wales Coastline. The route becomes gradually more developed as one nears Llandudno with Saint Tudno's Road, the two churches and their associated cemeteries, and thereafter the botanic gardens and access to the dry ski slope apparent inland.
- 989 **Value of views: Medium-high**. The route runs through the Great Orme and Creuddyn Peninsula SLA and also along the Great Orme Heritage Coast.
- 990 **Susceptibility to change:** *Medium-high.* People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods.
- 991 Views out to sea are constant along this section of the WCP and is, along with the rising landform of the Orme itself and the wide route running alongside key characteristics. Views south towards Llandudno Bay are only possible once south of Pen-trwyn.
- Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 11 km from the AyM array area and the partially urban influence in views toward the AyM array area from the southern sections of the path. The views from this section of the route include OWF with the closest being Rhyl Flats and the most expansive GyM.
- 993 **Sensitivity to change: Medium-high -** taking account of the assessed medium-high value of the views and the medium-high susceptibility to the proposed change to them.

994 Figure 19 (Annex 10.6) illustrates the blade tip ZTV along this section of the route. This shows visibility of 29-34 WTGs along a 2.5 km section of the route to the north of the point at Pen-trwyn and varied levels of visibility along the final third of the route reducing to no visibility from a short section along the north parade.



- The AyM OWF would be seen as part of an expansive view over the seascape from this section of the route and would be seen in the context of the operational OWF.
- 996 Viewpoint 15 (Annex 10.6) illustrates the view at the northern end of this section and close to the café whilst Viewpoint 62: Great Orme Marine Drive, Wales Coast Path near Toll Booth illustrates the type of view available at the southern section of the ZTV. Views of the AyM OWF are most likely to be seen by east bound walkers. Viewpoint 13 (Annex 10.6) illustrates a more elevated viewpoint near the summit complex and provides some useful context for views north-east from the Great Orme.
- 997 Magnitude of change during construction, operation and decommissioning (MDS A): Low during the early stages of construction and latter stages of decommissioning otherwise Medium-high.

- 998 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate-Major (Significant), adverse, short-term temporary.
- 999 Operation (MDS A): Moderate-Major effect (Significant), adverse, long term, reversible.

#### Wales Coast Path Section M – Llandudno

# Baseline description and sensitivity

1000 This 4.5 km section runs from the western end of Llandudno's promenade to Little Orme. From the pier, the path follows Happy Valley Road before descending to follow Llandudno's wide promenade around Llandudno Bay. At Craig Y Don Paddling Pool (Viewpiont 18) the path leaves the promenade to follow the B5115/ Colwyn Road through Craigside before ascending Little Orme along a rural route up behind the summit of this craggy headland and descending round the edge of a former quarry area onto a low-lying stretch of the route.



- 1001 After descending from the slightly elevated route round Great Orme, this section is largely urban and level as it runs along Llandudno's seafront. Views are predominantly northerly and take in the Irish Sea. Great Orme and Little Orme enclose the views from within the bay.
- 1002 Value of views: Medium-high. The route does not lie within a National or Local landscape planning designation. Beyond the urban area the route runs through the Great Orme and Creuddyn Peninsula SLA. Views are locally valued as part of the setting of the town. The Victorian parts of the settlement are a Conservation Area and the Great Orme, which forms part of Llandudno's setting, is a Heritage Coast and is in the Great Orme and Creuddyn Peninsula SLA.
- 1003 **Susceptibility to change:** *Medium-high.* People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods.
- 1004 Views out to sea are available for the full length of the Bay and promenade. The views of the OWFs alters depending on the direction of travel and are more prominent when travelling in an eastward direction.
- 1005 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 11 km from the AyM array area and the urban influence in views toward the AyM array area and as part of the wider context.
- 1006 **Sensitivity to change: Medium-high -** taking account of the assessed medium-high value of the views and the medium-high susceptibility to the proposed change to them.



- Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the route. This shows theoretical visibility of 29-34 WTGs along a 3 km section of the route, largely along the promenade and including a 0.5 km section of the WCP which runs along the pavement on Colwyn Road; this marks a reduction from 48 WTGs visible at the PEIR stage in response to stakeholder feedback. There the actual visibility of AyM OWF would be restricted by the intervening properties. Beyond the houses there is the possibility of views towards the AyM OWF for a short stretch (approximately 200m) before the WCP ascends up the hill behind the summit of Little Orne and views out to sea in the direction of the AyM array area are obscured for over 1 km of the WCP until it reaches the edge of the disused quarry and passes to the east of the landform of Creigiau Rhiwledyn.
- 1008 Viewpoint 59 (Annex 10.6) illustrates the view at the western end of the promenade, Viewpoint 61 illustrates the view from the promenade near to the Centre Cymru and Viewpoint 18 (Annex 10.6) shows the view at the Paddling Pool.
- 1009 Viewpoint 58 (Annex 10.6) shows a view from Little Ormes Head, although it is located on the summit of the hill rather than on the Wales Coast Path so provides more wide-ranging visibility than is available from the WCP itself. There is no such visibility of the AyM array area from the upper sections of the Wales Coast Path as it runs at a lower level to the east of the summit itself.
- 1010 There would be short sections of reduced or no visibility at either end of this WCP section where the Great Orme and Little Orme respectively screen views of AyM OWF.
- 1011 Magnitude of change during construction, operation and decommissioning (MDS A): Low during the early stages of construction and latter stages of decommissioning otherwise Medium-high for 2.5 km section along Llandudno promenade and a short section (200m) of Colwyn Road (a total of 2.7 km of this 4.5 km section). Low magnitude of change along the western 0.5 km of the route where actual and theoretical visibility is restricted. No change elsewhere along the route.



- 1012 Construction, Decommissioning: Moderate-Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate-Major effect (Significant), adverse, short-term temporary along 2.5 km section of Llandudno promenade and 200m section of Colwyn Road (a total of 2.7 km of this 4.5 km section). Moderate-Minor effect (Non-significant) for the western 0.5 section of the route and No change elsewhere along the route.
- 1013 Operation (MDS A): Moderate-Major effect (Significant), adverse, long term, reversible along 2.5 km section of Llandudno promenade and a 200m section of Colwyn Road. Moderate-Minor effect (Non-significant) adverse, long term, reversible for the western 0.5 section of the route and No change elsewhere along the route.

## Wales Coast Path Section N - Penrhyn Bay

- 1014 Descending from the edge of the former quarry on Little Orme, this 5 km long section continues to the west end of the Colwyn Bay promenade. The path descends off the eastern slopes of Little Ormedown steps it turns inland of the coast to follow residential roads Penrhyn Beach, East Beach Drive and Glan Y Mor Road for approximately 1 km where it runs between houses. The road and path re-joins the coast just before the junction with Maes Gwyn Road. The path follows the seafront to Rhoson-Sea, following the Rhos promenade and the Colwyn Bay promenade as far as Marine Road.
- 1015 Following the coastline for most of its route, this section is level and urban in character as it runs between the beach and alongside Glan Y Mor Road and Marine Drive, before following the Rhos and Colwyn Bay promenades. Urban form along the route is only interrupted by a golf course between Penrhyn Bay and Rhos on Sea. The orientation of the coastline means the outlook is predominantly northerly, to the Irish sea, particularly when travelling westwards along it.



- 1016 Value of views: Medium. The route does not lie within a National or Local landscape planning designation. The northern part of the route where it descends from Little Orme runs through the Great Orme and Creuddyn Peninsula SLA.
- 1017 **Susceptibility to change: Medium-high.** People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods.
- 1018 Beyond first sections of the route where it descends from the Little Orme and passes through housing views out to sea are available for the full length of the bays and promenades and are a key focus for views. The views of the OWFs alters depending on the direction of travel and are more prominent when travelling in an eastwards direction.
- 1019 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 11-12 km from the AyM array area and the urban influence in views toward the AyM array area and as part of the wider context.
- 1020 **Sensitivity to change: Medium-high -** taking account of the assessed medium value of the views and the medium-high susceptibility to the proposed change to them.

- 1021 Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the route. This shows 29-34 blade tips along much of the route with the exception of where views are screened by the headland at Rhos Point and Little Orme; this marks a reduction from 48 WTGs visible at the PEIR stage in response to stakeholder feedback. Actual visibility will be reduced further along these same sections due to the additional screening influence of the coastal properties.
- 1022 Viewpoint 19 (Annex 10.6) illustrates the view at Rhos Point and Viewpoint 29 (Annex 10.6) shows the view from just beyond the eastern extents of this section in Colwyn Bay.
- 1023 The changes in views as a result of the AyM OWF would predominantly occur when travelling west along this section of the route.



1024 Magnitude of change during construction, operation and decommissioning (MDS A): Low during the early stages of construction and latter stages of decommissioning otherwise Medium-high for 3.5 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point. Low magnitude to no change elsewhere along the route (1.5 km primarily to the south of Little Orme and Rhos Point).

# Significance of effect

- 1025 Construction, Decommissioning: Moderate-Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate-Major effect (Significant), adverse, short-term temporary for 3.5 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point. Moderate Minor effect to Minor effect (Non-significant) elsewhere along the route (1.5 km primarily to the south of Little Orme and Rhos Point).
- 1026 **Operation (MDS A): Significant**, adverse, long term, reversible for 3.5 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point. **Non-significant** elsewhere along the route.

# Wales Coast Path Section O - Colwyn Bay

# Baseline description and sensitivity

This 10.4 km section runs between Colwyn Bay and Pensarn. From Marine Road the path follows the promenade around the sweep of Colwyn Bay. The path continues from the eastern end of the promenade, at Old Colwyn, between the shoreline and the A55/ North Wales Expressway to pass Penmaen-Rhos and Raynes Quarry. Where the A55/ North Wales Expressway crosses the North Wales railway, the path follows a steep wooded bank east. The path runs between the rail line and the shoreline, in front of several caravan parks west and east of Llandulas. It continues along a hard surfaced path behind the beach along the highly developed coast, to follow Sea Road. At Pensarn the path runs between the beach and car parking on Sea Road.



- 1028 This section runs between the coastline and the corridor of the A55/ North Wales Expressway and North Wales railway for almost all of its route. It is generally level and urban in character as it passes through Colwyn Bay, Penmaen-Rhos and Llandulas alongside the road, although there is a steeply sloping section to the west of Llandulas where it navigates around the coastal infrastructure. The orientation of the coastline means the outlook is predominantly north, to the Irish sea and the operational OWFs located there.
- 1029 **Value of views: Medium.** The route does not lie within a National or Local landscape planning designation. The views are valued locally as part of the setting of the WCP.
- 1030 **Susceptibility to change: Medium-high.** People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods.
- 1031 With the exception of a short area to the west of Llandulas there are expansive views out across the Irish Sea from the full length of this route along this highly developed section of the coast. The views of the OWFs alters depending on the direction of travel and are more prominent when travelling in an eastward direction.
- 1032 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 14-17 km and the urban influence in views toward the AyM array area and as part of the wider context.
- 1033 **Sensitivity to change: Medium-high -** taking account of the assessed medium value of the views and the medium-high susceptibility to the proposed change to them.

1034 Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the route. This shows 29-34 blade tips along the entire section; this marks a reduction from 48 WTGs visible at the PEIR stage in response to stakeholder feedback. Actual visibility will be reduced for a section of approximately 400m where it passes through some vegetation and landform west of Llandulas.



- 1035 Viewpoint 29 (Annex 10.6) shows the view from the western extents of this section in Colwyn Bay where the magnitude of change is assessed as Medium-High. Viewpoint 65 is representative of the views of the A55 and is taken at the jetty north of Penmaen Rhôs. It shows the operational and proposed AyM OWF visibility at this location, which is also on the WCP.
- 1036 Viewpoint 22 is on the Abergele promenade and illustrates the visibility of AyM from there in the context of operational OWFs where the magnitude of change is assessed as Low.
- 1037 The changes in views as a result of the AyM OWF would predominantly occur when travelling west along this section of the route.
- 1038 The magnitude of change is reduced to medium-low beyond Llandulas and is Low from the point on the path where it reaches Viewpoint 29 which is on the edge of Pensarn. This is largely as a result of the existing operational OWF influence and increasing distance from the AyM array area.
- 1039 Magnitude of change during construction, operation and decommissioning (MDS A): Low to negligible during the early stages of construction and latter stages of decommissioning otherwise Mediumhigh for the 5 km section from Colwyn Bay to 0.5 km west of Llandulas. Medium to low from 0.5 km west of Llandulas to Pensarn and Abergele.

- 1040 Construction, Decommissioning: Minor to Moderate-Minor effect (Non Significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate-Major effect (Significant), adverse, short-term temporary for the 5 km section from Colwyn Bay to 0.5 km west of Llandulas. Moderate effect (Significant), adverse, short-term temporary from 0.5 km west of Llandulas to west of Pensarn and Abergele.
- 1041 Operation (MDS A): Moderate-Major effect (Significant) adverse, long term, reversible for the 5 km section from Colwyn Bay to 0.5 km west of Llandulas. Moderate effect (Significant), adverse, long term, reversible from 0.5 km west of Llandulas to west of Pensarn and Abergele.



## Wales Coast Path Section P - Pensarn to Prestatyn

- Running between Pensarn and Prestatyn this 14 km section also includes the settlements of Belgrano, Towyn, Kinmel Bay and Rhyl where it often coincides with their promenades. Where Sea Road ends, near Abergele & Pensarn station, the path continues between the beach and the rail line to the western edge of Towyn. It continues along Towyn's seafront behind Kinmel Dunes Nature Reserve, before turning south to follow the A548 and cross the River Clywd to Rhyl. After crossing the bridge over the River Clywd, this section briefly follows West Parade/ B5118 before turning onto Rhyl's promenade, through the town's seafront, past Ffrith Beach and along Prestatyn's seafront. The path adjoins Offa's Dyke Path near Prestatyn's Nova Centre and continues along the promenade past Prestatyn Sailing Club.
- 1043 This section is predominantly urban and backs onto settlement with extensive caravan parks for most of its length. Occasional areas of open space including golf courses on the edges of Rhyl and Prestatyn interrupt the urban form. Towards the east the coastline is influenced by the Dee Estuary and it becomes more flat, open and exposed. Hugging the smooth coastline, this section is level with a north westerly aspect across the Irish Sea where there are views of OWFs.
- 1044 **Value of views: Medium.** The route does not lie within a National or Local landscape planning designation. The views are valued locally as part of the setting of the WCP.
- 1045 **Susceptibility to change: Medium.** People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods.



- 1046 With the exception of a short section to the east of Kinmel Bay, where the path routes round a headland caravan park to where it crosses the River Clwyd, there are expansive views out north-west across the Irish Sea. This section of the route is along a highly developed coastline. The views of the OWFs alters depending on the direction of travel with either the Rhyl Flats or North Kyle OWFs being most prominent and the Gwynt-Y-Mor and/ or Burbo Bank and its extension seen beyond these.
- 1047 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 18-21 km and the urban influence in views toward the AyM array area and as part of the wider context.
- 1048 **Sensitivity to change: Medium**-taking account of the assessed medium value of the views and the medium susceptibility to the proposed change to them.

- 1049 Figure 19 (Annex 10.5) illustrates the blade tip ZTV along this section of the route. This shows 29-34 blade tips along the entire section although there may be some reduction in the extent of actual visibility for a 200m section east near the River Clwyd crossing.
- 1050 Views towards the AyM OWF are represented by three viewpoints. Viewpoint 22 (Annex 10.6) shows the visibility from the western end of the route at Abergele/ Pensarn and Viewpoints 23 and 25 (Annex 10.6) are from the Rhyl and Prestatyn promenades respectively.
- 1051 The changes in views as a result of the AyM OWF would predominantly occur when travelling west along this section of the route.
- 1052 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Medium-low reducing to Low at Rhyl.



- 1053 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate-minor to minor effect (Non-significant), adverse, short-term temporary.
- 1054 Operation (MDS A): Moderate-minor to minor effect (Non-significant), adverse, long term, reversible.

#### NCR 5

- 1055 The route of NCR 5 is shown on Figure 18.1 (Annex 10.5). It runs through Conwy from west of Llanfairfechan in the west and east to the crossing of the River Clwyd west of Rhyl.
- 1056 NCR 5 largely follows the route of Sections J, K, L, M, N, O and P of the Wales Coast Path where it passes through Conwy. To avoid repetition reference should be made to those assessments in Sections 785 and 1232 for the baseline context and views.
- 1057 There are a few small sections of NCR 5 that follow a different route to that of the WCP and these are outlined as follows:
  - The western section of the route follows minor, wooded routes into Llanfairfechan where it joins the route of the Wales Coast Path.
  - North of Conwy NCR diverges from the WCP to run inland, south of Conwy Golf Course. It rejoins the WCP south of the marina.
  - East of Conwy bridge the route splits with one section following the WCP north along the eastern edge of the River Conwy and a further section running west to east and then north towards Penrhyn Bay where it links to the main west to east section of the WCP. A further section of NCR 5 then doubles back westwards through Penrhyn Side to where it rejoins the WCP for a short section along Llandudno Promenade, moving inland within the town thereafter.
- 1058 Value of views: Medium. No part of this section is located within a National landscape planning designation. Short section run through the Great Orme and Creuddyn Peninsula SLA to the south of Llandudno. Its setting is influenced by views of SNP.



- 1059 Susceptibility to change: Medium to negligible. People using NCRs tend to do so with the purpose of travelling between places for a particular purpose, which may include recreation or for exercise and appreciation of the views/ environment through which they pass to some degree. However, NCR users generally also require more concentration on the route and other road users than walkers on LDRs. They are transient, usually moving at a moderate speed, so do not tend to have the same view for long periods.
- 1060 Compared with the WCP the susceptibility of users of NCR 5 would generally be lower. This is partly due the speed of travel but also as a result of the route of NCR 5 diverging inland compared with the WCP so that the visual relationship with the sea to the north is lessened/limited. This is particularly the case around the Creuddyn Peninsula where NCR 5 avoids the route around the Great Orme, the majority of Llandudno Promenade and traversing over Little Orme.
- 1061 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 13-24 km from the AyM array area and the incidence of intervening screening and closer range influences in the form of landscape/ built features as well as and the partially urbanised/ transportation influenced nature of the route's context.
- 1062 **Sensitivity to change: Medium to Low -** taking account of the assessed medium value of the views and the medium to negligible susceptibility to the proposed change to them.

1063 Figure 18 (Annex 10.5) illustrates the blade tip ZTV along this section of the coast. This shows theoretical visibility of parts of 29-34 turbines across parts of the route; this marks a reduction from 48 WTGs visible at the PEIR stage in response to stakeholder feedback. Areas of reduced or no theoretical visibility occur from much of the route to the east of Llanfairfechan, through Conwy and across the Creuddyn Peninsula. On the Peninsula the route along the single track Cystemin Road at Llangwstenin is shown to have theoretical visibility. Theoretical visibility is shown to occur intermittently along the route from there to Penrhyn Bay and west to Llandudno.



- 1064 In reality in the section of the route along Cystemin Road to Penrhyn Bay and west towards Llandudno visibility of AyM OWF is markedly constrained by roadside vegetation and built development. There would be a very short section (approximately 100m) of the route at Penrhyn Bay with actual visibility and approximately 500m along Llandudno Bay where visibility of AyM would be as Viewpoint 18 (Annex 10.6).
- 1065 From Penrhyn Bay eastwards to the boundary of Conwy the route follows the WCP. Theoretical visibility of 29-34 WTGs is shown to occur along this entire section of the route; this marks a reduction from 48 WTGs visible at the PEIR stage in response to stakeholder feedback. Viewpoint 19 (Annex 10.6) illustrates the view at Rhos Point and Viewpoint 29 (Annex 10.6) shows the view from in Colwyn Bay. Viewpoint 22 (Annex 10.6) shows the visibility from the route at Abergele/ Pensarn.
- 1066 Actual visibility will be reduced for a section of approximately 400m where it passes through some vegetation and landform west of Llandulas. There may be some reduction in the extent of actual visibility for a 200 m section east near the River Clwyd crossing.
- 1067 The changes in views as a result of the AyM OWF would predominantly occur when travelling west along this section of the route.
- 1068 Magnitude of change during construction, operation and decommissioning (MDS A): Low to Negligible during the early stages of construction and latter stages of decommissioning otherwise Mediumhigh for 0.5 km section along Llandudno Bay, Mediumhigh for 2 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point and along Colwyn Bay to 0.5 km west of Llandulas. Medium to low from 0.5 km west of Llandulas to Abergele. Low from Abergele to the boundary of Conwy at the River Clwyd crossing. Lower magnitudes to no change elsewhere along the route.



- 1069 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant), adverse, short-term temporary for 0.5 km section along Llandudno Bay, for 2 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point and along Colwyn Bay to 0.5 km west of Llandulas.
- 1070 *Minor effect (Non-significant)*, adverse, short-term temporary along all other sections of NCR 5 through Conwy.
- 1071 Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible for 0.5 km section along Llandudno Bay, for 2 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point and along Colwyn Bay to 0.5 km west of Llandulas.
- 1072 *Minor effect (Non-significant)*, adverse, long term, reversible along all other sections of NCR 5 through Conwy.
- 1073 Such effects are most likely to occur when travelling west along NCR 5.

# A55, North Wales Expressway

- 1074 The route is shown on Figure 18.1 (Annex 10.5). It runs through Conwy from west of Llanfairfechan in the west to south of Kinmel Park in the east. The route is dual carriageway and runs, in part through three tunnels through landform and under the River Conwy. The route varies between running close to the coast or inland across the Creuddyn Peninsula and south of Abergele.
- 1075 The route west of Llanfairfechan is set back from the coast with views out from the road corridor largely constrained or filtered by roadside and other vegetation. Views from where the route passes through Llanfairfechan are further limited by roadside barriers and built development.



- Penmaenmawr to approximately level with the west bound junction (16A) with Glan-Yr-Afon Road the views out to sea are intermittently more open towards the sea to the north-east although markedly influenced by barriers, bridge abutments, mining structures and other roadside infrastructure as well as in places tunnels, roadside vegetation and the rail line. Views out to sea towards the Great Orme and the northeast to the isthmus at Llandudno, where it is possible to see the Rhyl OWF above the townscape, are intermittently possible through and over barriers. This would occur more frequently in views obtained from higher vehicles such as coaches and lorries, although the incidence of roadside clutter remains influential.
- 1077 This is with the exception of the section at Penmaenmawr where passes through tunnels. The east bound tunnels are very short so that the road emerges and is channelled around the landform via a section of the route that is tightly constrained by barriers, however the west bound section of tunnel is approximately 1 km in length. The west-bound carriageway is separate at this stretch of the route and views out to sea are restricted by the route passing through approximately 0.75 km of Penmaen-bach tunnel and by roadside planting.
- 1078 Viewpoint 63: A55 at Penmaenmawr illustrates how AyM influences views out to sea and shows that from the east bound carriageway, from low vehicles such as cars, views are typically obscured by solid barriers along this section of the route.
- 1079 Views from Puffin Roundabout (Junction 16) and approximately 0.75 km eastwards to just east of where the A55 passes under the pedestrian bridge to Dwygyfylch are slightly more open and so there is a greater appreciation of views out to sea (although often filtered and screened by intervening vegetation). The view from close to the roundabout is shown in Viewpoint 64: A55 at Puffin Roundabout, Dwygyfylch (Annex 10.6) and illustrates the existing views of the operational OWFs that may be visible over Llandudno.
- 1080 There is further short section on the east bound carriageway from where there is open visibility north and north-east out to sea just before the route enters the Penmaen-bach tunnel.



- 1081 To the east of the Penmaen-bach tunnels there are views out to sea and the Great Orme over barriers from the east bound section of the A55 (only from vehicles higher than cars) for approximately 1 km until approximately where the route passes the pedestrian/cycle bridge over the rail line. For low vehicles such as cars visibility out to sea is largely obscured by solid barriers except for in the latter 0.3 km section where the barriers are not solid. However, the section of the west bound route would have open views over the sea to the north for approximately 0.5 km. Such views are markedly influenced by foreground visibility of roadside and rail infrastructure.
- 1082 East of here views from the route are obscured by landform and roadside vegetation and the A55 moves inland and under Conwy via a tunnel to cross the Creuddyn Peninsula. The A55 returns to the coast at Colwyn Bay however, views out to sea are restricted by retaining walls, roadside barriers, buildings and vegetation through Colwyn Bay.
- 1083 East of Colwyn Bay views out to sea are more open for a stretch of approximately 2 km. This section of intermittent visibility out to sea is represented by Viewpoint 65: A55 at jetty north of Penmaen Rhôs (Annex 10.6). Such visibility occurs until roadside vegetation and built form starts to filter and screen views out to sea at the approach and through Llandulas. Views of the operational OWF are prominent from this section of the route.
- 1084 Between Llandulas and Abergele there are intermittent, glimpsed views to the north-west out to sea, including operational OWFs between vegetation and over the coastal rail line and caravan parks.
- 1085 Beyond Abergele the A55 turns inland through cutting and woodland so that glimpsed views towards the sea are only possible from the west-bound carriageway and are very limited.
- 1086 Value of views: Medium. No part of this section of the A55 is located within a National or Local landscape planning designation. Its immediate setting to the south and west of Conwy is influenced by views of SNP. The route is an important strategic connection used by many receptors, however it is used primarily for swift access between locations and not for appreciation of scenery. It is not a recognised scenic route.



- 1087 Susceptibility to change: Medium-low to negligible. People using the A55, North Wales Expressway are generally travelling at high speed with drivers concentrating on the immediate environment of the road and passengers highly influenced by this local environment which is largely contained. Views out to sea, from where they are possible within Conwy, offer some possibility for the appreciation of the views/ environment through which the route passes. Road users are transient, and do not tend to have the same view for long periods.
- 1088 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 14-24 km from the AyM array area and the incidence of intervening screening and closer range influences in the form of landscape/ built features as well as and the predominantly urbanised/ transportation influenced nature of the route's context.
- 1089 **Sensitivity to change: Medium to Low -** taking account of the assessed medium value of the views and the medium-low to negligible susceptibility to the proposed change to them.

- 1090 Figure 18 (Annex 10.5) illustrates the blade tip ZTV along this section of the A55. This shows theoretical visibility of parts of 29-34 turbines across the majority of the route. This is except for sections to the east of Llanfairfechan, across the Creuddyn Peninsula to Colwyn Bay where local landform screens visibility.
- 1091 Actual, visibility of AyM OWF from the A55 is markedly reduced by roadside vegetation, embankments and barriers as well as tunnels and built development through settlements.



- 1092 Where there is potential for visibility of AyM OWF it would be intermittently apparent in views of the seascape beyond Conwy Bay and the Great Orme to the north and north-east from the section of the A55 to the east of the roundabout east of Llanfairfechan to approximately 1 km east of the Penmaen-bach east bound tunnel. This is a 7.5 km section along which there are numerous stretches were tunnels, landform and vegetation intermittently obscure and screen views towards the AyM OWF. Views of AyM OWF would be more readily available from vehicles higher than cars as solid barriers line long sections of this route where it passes close to the rail-line and coast.
- 1093 There would, however, be a general awareness of AyM OWF in the seascape beyond the Great Orme for much of this section. This would sometimes be seen in addition to or sequentially with the views of Rhyl Flats OWF, which is apparent but less noticeable over the isthmus and townscape of Llandudno. The magnitude of change would vary from Medium to negligible over this section of the route.
- 1094 There would also be visibility of the AyM OWF in views out to sea from a 2 km section of the route from east of Colwyn Bay to the approach to Llandulas. The views of the operational OWF are prominent from this section of the route. Between Llandulas and Abergele for a total of approximately 2 km of the A55 there are intermittent, open/glimpsed views to the north-west to the AyM OWF which include operational OWFs between vegetation and over the coastal rail line and caravan parks. The magnitude of change would be Medium-low along these sections of the A55
- 1095 However, possible views from these sections of the A55 route are markedly filtered and influenced by the roadside infrastructure.
- 1096 Views of the AyM OWF are most likely to be seen by east bound road users west of the Creuddyn Peninsula and by west bound travellers on to the east of it.



- The addition of AyM OWF to the views from the A55 through Conwy will add to the existing OWF to the east of the Creuddyn Peninsula so that OWFs would be visible to a greater extent and across a wider horizontal extent of the seascape. Visibility of the AyM OWF would also add to the extent of the A55 that is notably affected by OWF views to the west of the Creuddyn Peninsula through the introduction of AyM OWF across the open seascape horizon in the context of the Great Orme. At an average speed of 50 miles per hour (80 km per hour) people in vehicles would experience intermittent views of AyM OWF from the A55 for approximately five and a half minutes to the west of the Creuddyn Peninsula and a total of three minutes between Colwyn Bay and Abergele.
- 1098 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Medium to negligible along a 7.5 km of the route from east of Llanfairfechan to east of the Penmaen-bach tunnel. Medium-low for a total of approximately 4 km of the route between the east of Colwyn Bay and Abergele. Low to negligible magnitude of change along other parts of the A55.

- 1099 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate-Minor to Minor effects (Non-significant) adverse, short-term temporary from approximately 11.5 km of the route and Minor effect (Non-significant) adverse, short-term temporary or No effect from the remainder of the A55 through Conwy.
- 1100 Operation (MDS A): Moderate-Minor to Minor effects (Non-significant, adverse, long term, reversible from approximately 11.5 km of the route and Minor effect (Non-significant) adverse, long term, reversible or No effect from the remainder of the A55 through Conwy.
- 1101 Such effects are most likely to occur in views from the A55 obtained by east bound road users west of the Creuddyn Peninsula and by west bound travellers on the A55 to the east of it.



## Effects on landscape character

# LCA C4 - Limestone Farmlands (Abergele to Denbigh Coastal/ Vale Hills unit)

- 1102 This landscape unit comprises land which runs from Colwyn Bay and Abergele and inland south-east past Henllan and south to Denbigh.
- 1103 It is typically a medium scale, rolling landscape with some prominent limestone ridges in the central area. There is a mosaic of pastures and woodland, including estate woodlands and designed parklands of cultural heritage interest.
- 1104 The coastline along the northern part of this landscape unit around Colwyn Bay and Abergele is densely settled with numerous public attractions in the vicinity. Man-made influence is evident in the road system, including the A55/ North Wales Expressway, the North Wales Coast Railway, quarries and pylon lines which punctuate the skyline south of the B5831. Elsewhere the landscape becomes more rural in character with a settlement pattern of numerous properties dispersed along a network of minor roads and lanes.
- 1105 Views are typically enclosed by landform and vegetation, although there are some more open and extensive views from areas of higher land and along the coast. The Clwydian Range (AONB) forms rolling skylines to the east of this landscape unit and contains visibility in that direction. Denbigh Castle is a prominent skyline feature. To the northwest, the limestone escarpment and hills at Llanddulas create more complex and distinctive skylines. Skylines in the central section of this landscape unit are interrupted by pylon lines.
- 1106 The presence of traffic on the local road network brings frequent movement into this landscape, particularly around the larger settlements and along the coastline. Away from the settlements and roads movement is less frequent.



- 1107 Along the coast and extending into the hills there are numerous LDRs including the Sustrans North Wales Coast cycle route (NCN Route 5), North Wales Path (part of the Wales Coast Path) and the Clwydian Way. A network of PRoW extends from the settled areas and provides links into the countryside as well as to Open Access Areas to the west of Abergele.
- 1108 Part of this landscape unit comprises a line of hills which are significant in forming the visual backdrop and skyline to the settled coastal plain. Views are typically limited by landform and vegetation; however, more open long-distance views out to adjacent landscape units are afforded from areas of higher land and along the coastline where they also include a wide seascape that includes operational OWF.
- 1109 Value of the landscape character: Medium. Approximately one fifth of the landscape unit covering parts of the inland hills that are set back from the coast in the northern area coincides with the Betws yn Rhos SLA. Almost half of the LCA is within the High visual and sensory LANDMAP classification.
- 1110 **Susceptibility to change: Medium.** The LCA has some varied settlement characteristics ranging from a partially developed coastline to one of a settled, agricultural and partially wooded landscape.
- 1111 Association with the seascape is also markedly varied between coastal areas and inland areas with some diversity also arising where there are areas of higher ground in the north that have outlooks that include the seascape of the Irish Sea.
- 1112 The coastal parts of the LCA are exposed to the seascape to the north with expansive panoramic views over the Irish Sea. Views out to sea towards the AyM array area from the landscape unit tend to contain some development influences, including OWF.
- 1113 Susceptibility is moderated by the distance to the AyM array area ranging from 15--35 km, the existing development influences on the coast and the lack of visual association with the seascape from much of the rural area.
- 1114 **Sensitivity to change: Medium -** taking account of the assessed medium value of the landscape and the medium susceptibility to the proposed change to it.



- 1115 Figure 16b (Annex 10.5) illustrates the blade tip ZTV within this LCA unit. This shows theoretical visibility of parts of 29-34 turbines across large parts of the landscape, particularly in the north with reduced or no visibility along the southerly and westerly edges. The area shown to have any theoretical AyM WTG visibility equates to 65% of the LCA unit at ranges of 15—33.5 km. However, actual visibility is much reduced from theoretical visibility across inland, low-lying parts of the unit where extensive hedgerows, trees and woodland blocks are layered in views across the landscape and generally prevent long distance views from it. In areas of settlement, buildings have an additional screening effect.
- 1116 Where views are available out to sea from inland they are strongly characterised by the surrounding landscape context which frequently also includes development.
- 1117 Viewpoints 21, 50 and 65 (Annex 10.6) are located within this LCA unit and illustrate the baseline character of views and the visibility of the AyM OWF (MDS A) from there.
- 1118 The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCA is generally likely to be lower than is identified for a viewpoint.
- 1119 Magnitude of change during construction, operation and decommissioning (MDSA): Negligible during the early stages of construction and latter stages of decommissioning otherwise Medium-low at the coastal edge and elevated locations where inland from the coast by approximately 1-1.5 km with views out to sea. Reducing to Low or No change further inland.

# Significance of effect

- 1120 Construction, Decommissioning: Minor effect (Non-significant), adverse, short-term temporary during the early stages of construction and latter stages of decommissioning otherwise Moderate-Minor to Minor effect (Non-significant) adverse, short-term temporary.
- 1121 Operation (MDS A): Moderate-Minor to Minor effect (*Non-significant*) adverse, long term, reversible.



## LCA C9 - Limestone Escarpment and Hills

- 1122 This LCA comprises a series of small landscape units covering disparate steep hills and cliffs located at Llandulas (Cefn yr Ogof, Rhyd-y-foel and Crag y Forwyn) and Bryn Euryn Hill (between Rhos-on-Sea and Colwyn Bay). These landforms are highly distinctive features located close to the Conwy coastline.
- The limestone hills are typically small to medium scale. The summits are generally open and rocky with scarp and scree faces and their lower reaches often wooded with some pasture. They are prominent features locally within the landscape and are often the focus for historic uses which provides them with cultural heritage interest as well as often nature conservation value. In some cases, they are often appealing as local vantage points, easily accessed by communities and via Open Access Land and PRoW from small parking areas. However, the summit of Crag y Forwyn has been quarried and is currently a landfill site although access to the elevated slopes remains possible along numerous paths to the south and east.
- 1124 Man-made influences include the settlements that are found around the lower slopes and also in the quarrying at Llandulas. However, with the exception of important historical features, and within the context of the developed coastline, the majority of this landscape unit is relatively undeveloped.
- 1125 These hills are highly distinctive and form prominent skylines when viewed from a number of locations along and adjacent to the coastline.
- 1126 Movement is limited to infrequent traffic on local roads around the base of the hills and landfill activities at Llandulas. The hill tops and higher slopes are generally very still, although their popularity with walkers adds to the activity present on some of the hills.



- 1127 The higher slopes afford open and expansive views out to sea and over coastal areas including the Great Orme Headland and the Irish Sea, which includes operational OWF. Views across landward areas include the Clwydian Range, Denbigh Moors and Snowdonia National Park. Views to and from the lower slopes are more enclosed by landform and vegetation.
- 1128 Value of the landscape character: Medium-high. The eastern two units of the LCA, located to the south of Llandulas, are largely within the Betws yn Rhos SLA. Approximately half of the LCA unit is within the High visual and sensory LANDMAP classification.
- 1129 **Susceptibility to change: Medium.** These low hill areas are generally rural in character, however their elevation within a wider area results in them being strongly characterised by the views over the surrounding landscape which is partially developed or settled farmland. Views out to sea across the settled coastline are also a component of this contextual influence.
- 1130 **Sensitivity to change Medium-high -** taking account of the assessed medium-high value of the landscape and the medium susceptibility to the proposed change to it.

- 1131 Figure 16b (Annex 10.5) illustrates the blade tip ZTV within this LCA unit. This shows theoretical visibility of parts of 29-34 turbines across parts of the landscape, particularly in the north of the units; this marks a reduction from 48 WTGs visible at the PEIR stage in response to stakeholder feedback.
- 1132 The area shown to have any theoretical AyM WTG visibility equates to around 80% of the LCA units at ranges of 12.5-18.5 km. However, actual visibility is much reduced from theoretical visibility across the frequently wooded lower slopes of the hills.
- 1133 Where views are available out to sea from inland they are strongly characterised by the surrounding landscape context which frequently also includes development and includes operational OWF.



- 1134 Viewpoints 20 and 56 (Annex 10.6) are located within this LCA unit. Viewpoint 20 (Annex 10.6) illustrates the baseline character of views and the visibility of the AyM OWF (MDS A) from there.
- 1135 The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCA is generally likely to be lower than is identified for a viewpoint.
- 1136 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Medium-low.

- 1137 **Construction, Decommissioning**: Minor effect (*Non-significant*), adverse, short-term temporary during the early stages of construction and latter stages of decommissioning otherwise *Moderate effect (Non-significant)*.
- 1138 Operation (MDS A): Moderate effect (Non-significant) adverse, long term, reversible.

# LCA C10 - Great Orme and Creuddyn Peninsula

# Baseline description and sensitivity

1139 This landscape unit comprises the Great Orme and Creuddyn Peninsula, which lie to the north-west of Conwy. It is composed of a dramatic limestone headland of small to medium scale. The landform of the peninsula is varied and comprises dramatic limestone headlands and cliffs with areas of gently rolling land and flatter lowland. The landcover is a mosaic of pastures, woodland, open land, hillsides, scarp slopes and cliffs, urban settlements and features of considerable cultural heritage and visitor interest.



- 1140 The Great Orme and Little Orme form prominent skyline and landscape features with strong relationships to their seascape setting. Esgyryn Obelisk is a distinctive monument visible from the south. The Great Orme extends beyond the main bulk of the peninsula across a wide, developed isthmus of land and then rises up as a dramatic, relatively flat-topped lump of rock, steeply sloping on all sides. Expansive views out across the sea, coastline and inland hills are available from the Great Orme.
- 1141 With the exception of the Great Orme Headland and parts of Little Orme. Man-made influences are evident across this landscape unit and include the A55/ North Wales Expressway and North Wales Coast Railway in the south and also the busy urban resort settlements of Conwy, Deganwy, Llandudno, Rhos-on-Sea and Colwyn Bay and pylon lines that are visible towards the middle of this landscape unit. This landscape unit is also host to several LDRs including Sustrans North Wales Coast cycle route (NCN Route 5) and the North Wales Path (part of the Wales Coast Path).
- 1142 Much of this landscape unit is very busy, particularly around the coastal settlements; however, there are a number of areas where movement is much less frequent, such as on the northern part of the Great Orme and summit of Little Orme.
- 1143 The Conwy Borough Council, Great Orme Country Park and Local Nature Reserve Management Plan 2011-2016 does not set out any specific Special Qualities associated with its Heritage Coast status however it notes aspects of the Great Orme landscape that are considered important.
- 1144 In section 2.6 entitled Landscape it is stated that:

"A number of habitats can be discerned from a distance, such as wooded areas on the lower slopes, grasslands, cliff faces and rock exposures. The Great Orme can be seen for many miles around, from Anglesey and along the North Wales coast, and for many miles inland. Rising 209m (679ft.) from sea level, views from much of the site, but especially the summit, are extensive. Many visitors to the Great Orme come to the summit particularly to enjoy the view. Views include Anglesey and Puffin Island, parts of the Snowdonia mountain range, the



Conwy estuary, Llandudno and surrounding areas, the Little Orme, Colwyn Bay and Rhyl. On particularly clear days the Wicklow mountains in Ireland, the Isle of Man and the mountains of the Lake District can also be seen from the summit."

1145 Within section 3.3.7 entitled Feature 7: Heritage Coast the Management Plan goes onto provide the following information about the value and qualities associated with the Great Orme as well as some of the detractors:

"Landscape value is taken into account through consideration of the headland itself, the surrounding (and interacting) marine environment and views from the headland (particularly of Snowdonia). Heritage Coast is a stretch of Wales' most beautiful, undeveloped coastline where the aim is to protect and conserve the coast's vulnerable beauty for the future and ourselves and to enhance people's enjoyment of this special coastline in ways that does not risk its conservation.

The landscape value of the headland lies in its natural and rugged appearance and its coastal location, its quality is reflected in the heritage coast definition. The high quality of the landscape is potentially fragile and could be compromised by inappropriate management and development. Coast protection work and safety work (in relation to Marine Drive) have already had consequences for landscape quality. The combination of features and views result in a unique landscape that is appreciated by over 600,000 visitors each year. Such a high number of visitors has also compromised the landscape locally in terms of erosion, litter and fly tipping. The landscape value could be, and is being, protected and enhanced through appropriate management, reclamation works and planning controls."

- 1146 Value of the landscape character: Medium-high. Approximately two fifths of the northerly 'Limestone Country' unit of the LCA are within the Great Orme and Creuddyn Peninsula SLA coinciding with the less developed parts of the unit. The Great Orme is designated as a Heritage Coast denoting its importance in the landscape.
- 1147 Almost of all of the southerly 'Marginal Upland' unit of the LCA is within the Conwy Valley SLA and the majority of it is within the High visual and sensory evaluation LANDMAP classification.



- An addition, the Great Orme is a Country Park with large areas of Open Access Land. It is covered by numerous nature conservation designations and geological/ cultural heritage features of importance. The Great Orme forms part of the Creuddyn and Conwy Landscape of Outstanding Historic Interest as a result of its archaeological merit but also its "importance as a spectacular backdrop to the planned Victorian town and resort of Llandudno sited at the base of the Orme on its landward side" (Conwy Borough Council, Great Orme Country Park and Local Nature Reserve Management Plan 2011-2016).
- 1149 Of this landscape unit approximately, half is within the High visual and sensory evaluation LANDMAP classification with 1% in the Outstanding category.
- 1150 Susceptibility to change: Medium-high in the north and Medium inland and to the south. The LCA has some varied characteristics ranging from a particularly developed coastline and hinterland to a rugged, exposed landscape with some wildness characteristics.
- 1151 Association with the seascape to the north is also markedly varied between the headlands, coastal areas with a strong association and settled inland areas where landform, intervening woodland and built form prevent views out to the Irish Sea.
- 1152 The coastal parts of the LCA and the northern parts of the headlands are exposed to the seascape to the north with expansive panoramic views over the Irish Sea. Views out to sea towards the AyM array area from the landscape unit tend to contain some development influences, including OWF.
- 1153 Susceptibility is moderated by the distance to the AyM array area ranging from 11-17 km, the existing development influences on the coast and the lack of visual association with the seascape from much of the inland and urban areas, which constitute large parts of the LCA.
- 1154 **Sensitivity to change Medium-high -** taking account of the assessed medium-high value of the landscape and the medium-high medium susceptibility to the proposed change to it.



- 1155 Figure 16b (Annex 10.5) illustrates the blade tip ZTV within this LCA unit. This shows theoretical visibility of parts of 29-34 turbines across large parts of the landscape, particularly in the north from the coastal area around Lllandudno and from the Great Orme and Little Orme. There is reduced or no visibility along the edges to the south-west and where views north are screened by intervening landforms such as: the Great Orme and Little Orme along the coast; Bryn Maelgwyn, Nant-y-Gamar, Mynydd Pant to the south of Llandudno; and the landform at Bryn Pydew further south.
- 1156 There would be no physical alteration to the landscape elements and patterns within the LCA itself. Any changes to it are as a result of visibility of AyM OWF as part of its seascape setting.
- 1157 The area shown to have any theoretical AyM WTG visibility equates to 80% of the LCA unit at ranges of 11-17 km. However, actual visibility is much reduced from theoretical visibility across inland, low-lying parts of the unit where extensive hedgerows, trees and woodland blocks are layered in views across the landscape and generally prevent long distance views from it. In areas of settlement, buildings have an additional screening effect.
- 1158 Where views are available out to sea from inland, they are strongly characterised by the surrounding landscape context which frequently also includes development.
- 1159 Viewpoints 13, 15 52 and 62 (Annex 10.6) provide views and visualisations from locations on the Great Orme. There are also numerous viewpoints that show views towards the Great Orme. These include three viewpoints along the Llandudno Promenade with viewpoint 59 showing views from the west and Viewpoint 18 illustrating views of AyM OWF in views from the west. Viewpoint 61 is from the promenade near to Venue Cymru. Viewpoint 58 is the view from the summit of Little Orme.



- 1160 The views towards Snowdonia (and Anglesey), that are considered to be of importance as part of the character of the Great Orme would not be affected by the views of AyM OWF from the Great Orme. Views towards the Great Orme from the Victorian seafront at Llandudno would be affected as the AyM OWF would be seen as part of the seascape setting to the Great Orme, as illustrated in Viewpoint 59 (Annex 10.6).
- 1161 The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCA is generally likely to be lower than is identified for a viewpoint.
- 1162 Magnitude of change during construction, operation and decommissioning (MDS A): Low during the early stages of construction and latter stages of decommissioning otherwise Medium at the coastal edge between the north-west point of Great Orme and Little Orme and from elevated locations on the Great Orme (extending inland from the north by approximately 1 km) and the north face of Little Orme. Reducing to Low or No change further inland where views are restricted or have a developed foreground.

- 1163 Construction, Decommissioning: Moderate-Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant) adverse, short-term temporary at the coastal edge between the north-west point of Great Orme and Little Orme and from elevated locations on the Great Orme (extending inland from the north by approximately 1 km) and the north face of Little Orme. Moderate-Minor to Minor effect (Non-significant) adverse, short-term temporary elsewhere within the LCA.
- 1164 Operation (MDS A): Moderate effect (Significant) adverse, long term, reversible at the coastal edge between the north-west point of Great Orme and Little Orme and from elevated locations on the Great Orme (extending inland from the north by approximately 1 km) and the north face of Little Orme. Moderate-Minor to Minor effect (Non-significant) elsewhere within the LCA.



## Effects on seascape character

## SCA A - Llandudno Bay

- 1165 This SCA covers the north-east facing slopes of the Great Orme to the summit and extends across the isthmus where Llandudno is located on the Creuddyn Peninsula inland to the low, wooded hills to the south of Llandudno.
- 1166 This is a shallow, north-facing bay between the Great Orme and Little Ormes Head, with a low sandy/ shingle bay, enclosed by the cliffs and steep slopes of the headlands.
- 1167 The coast is predominantly developed, with tall, fine buildings along the promenade and a resort pier. The bay is backed by low, wooded hills, with higher hills beyond forming the inner edge of the SCA.
- 1168 The southern and south-eastern parts of the Great Orme, areas of its summit and coastal edge have also been developed largely to provide vehicular access to various parts of this headland but also as public/visitor facilities some of which are quite evident from the wider area.
- 1169 The Rhyl Flats OWF located in the adjacent SCA B Colwyn Bay is a key element of views out to sea from the Great Orme and the bay area. The GyM OWF is visible in good visibility conditions beyond and extending on either side of Rhyl Flats OWF in views to the north-east from this SCA. North Hoyle OWF is visible in clear conditions, from parts of the coast to the east-north-east. The Douglas oil and gas platform complex is often visible on the horizon beyond GyM OWF.
- 1170 Existing shipping activity appears light, as the main shipping lane is 20 km to the north.
- 1171 Views from the coastline of the central bay are confined by the Ormes and no other coastal areas are visible except from on these elevated headlands. The headlands provide a high degree of containment to the bay and are key features in views out from it or in views to it from other parts of the seascape.



- 1172 Views from the sea are of a developed promenade enclosed by open headlands and backed by low wooded hills, with moorland hills and mountains behind.
- 1173 Key characteristics of this SCA are the distinct topography of the Great Orme, north Llandudno's integrity as an historic, Victorian resort and the contrast of the quieter, less developed Little Orme. The seascape of the bay contained by these features is an important aspect of its setting and sense of place. The well-maintained buildings, promenade, beach and other facilities.
- 1174 The wider seascape to the north is more open and becomes less influenced by the containing landforms of the bay and hills to the south and more associated with the wider seascape of Liverpool Bay and the more distant landscapes that contain it as well as the wider influence on seascape character of the OWF.
- 1175 Value of the SCA: Medium-high. The seascape itself is not covered by any local or national landscape designations. The small area of sea around the Great Orme is included within the Heritage Coast designation. The Great Orme and inland areas of the SCA are within the Great Orme and Crueddyn Peninsular SLA. The seascape forms part of the settings of these areas.
- 1176 **Susceptibility to change: Medium-high.** The SCA is not expansive within the bay although its scale increases to the north of the headlands. It is highly characterised by the containing landform and built development of the Victorian resort. There would be no change to the characterising components of this SCA and the AyM array area seems to occur beyond this SCA and the Great Orme, located within the open seascape of SCA 28 and SCA F at a range of approximately 5 km from the northern edge of the SCA at its closest point.
- 1177 Susceptibility to the AyM offshore elements is moderated by distance and the fact that the seascape is influenced by coastal development including infrastructure and settlement. Visibility of OWF development has some existing influence from parts of the SCA and this characteristic would become more defined by the proposals, particularly from the bay due to its orientation.



1178 **Sensitivity - Medium-high -** taking account of the assessed medium-high value of the seascape and the medium-high susceptibility to the proposed change to it.

- 1179 Construction/ Decommissioning: Low during the early stages of construction and latter stages of decommissioning otherwise MediumActivity within array area and vessel movements will be intensified in the vicinity. Existence and visibility of the WTG and OSP structures as they are constructed or dismantled at a minimum range of approximately 5 km. This will extend the OWF influence further across a wide field of the views out to sea from the northern extents of this area where this influence would be seen in the context of the operational OWF but as part of the wide-open seascape.
- 1180 From the coast the construction and decommissioning of the AyM offshore elements will be visible at a greater distance of approximately 11-13 km, however it will be seen across views that are sometimes elevated (from the Great Orme and Little Ormes Head) or contained by landform and in parts of the views that are perpendicular to the bay, promenade and enclosing built form.
- Operation (MDS A): Medium. There will be no physical change to the character of this SCA, which has innate, strongly defined elements. The only changes are as a result of visibility of the AyM Offshore Elements in views from the SCA as part of its wider setting. The AyM offshore elements will extend the existing OWF character influence through the introduction of views of up to 34 tall, widely spaced, moving WTGs and two OSPs from parts of this SCA. Theoretical visibility of the AyM WTGs (MDS A) from within the SCA is illustrated on Figure 15.
- 1182 The range of this theoretical visibility is between 5 km and 13 km. This will add to the existing OWF influence on the seascape character by extending the GyM OWF further west.



1183 The GyM OWF sits at a greater distance than the more prominent Rhyl Flats in views from this coastline. The scale of the AyM WTGs when compared with the WTGs of the operational OWF is relatively large. The horizontal and vertical fields of view that they occupy, within views from the coast that are sometimes contained by landform, will mean that they are substantially more prominent in views from the coastal parts of the SCA as is demonstrated by Viewpoints 13, 15, 18, 52 and 59. This in turn will increase their characterising influence, particularly when viewed in combination with the other OWFs.

## Significance of effect

- 1184 Construction/ Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant) adverse, short-term temporary.
- 1185 Operation (MDS A): Moderate effect (Significant), adverse, long term, reversible.

## SCA B - Colwyn Bay

- 1186 This SCA covers the coast and coastal waters between Little Ormes Head and the less pronounced headland to the east of Llanddulas. It consists of two bays Penrhyn Bay to the west and Colwyn Bay to the east and partially separated by Rhos Point.
- 1187 The combined north-north-east facing bays are gently concave and combine to be approximately 10 km long, with shingle and pebble upper shores which grade to sandy beaches. There are long promenades and vehicular, pedestrian and cycle route access along the shore. Viewpoints 19 and 29 illustrate the views from Rhos-on-Sea and Colwyn Bay respectively.



- The coastline is protected by sea defences in the form of groynes and punctuated by commercial jetties and the remains of a pier. Construction works are currently ongoing at the Colwyn Bay seafront. The narrow coastal strip is backed by steeply rising hills with almost no coastal plain. At Colwyn Bay and Llandulas the narrow coastal area is markedly influenced by the presence of the paralleling A55 and rail line and their interaction with other coastal land uses. Where there is less steeply sloping land this is characterised by residential and tourism development, often in the form of tall buildings and caravan parks. Extensive settlement rises up the north and north-east facing slopes along much of the coast. Other parts of the upland edge are extensively quarried.
- 1189 The inland boundary of the SCA is formed by the hills that rise to the south of the bays. These provide containment and back-clothing in the views from the sea but also vantage points for views out to sea as illustrated by Viewpoints 20 and 21.
- 1190 The Rhyl Flats OWF is located in this SCA and is a prominent element of existing views out to sea from the bay areas as well as the elevated upland areas. The GyM OWF is visible in good visibility conditions beyond and extending on either side of Rhyl Flats OWF in views to the north-east from this SCA. North Hoyle OWF is visible in clear conditions to the east-north-east. The Douglas oil and gas platform complex is often visible on the horizon beyond GyM OWF. Marine activity is generally associated with these offshore developments although large vessels can sometimes be seen on the distant horizon.
- 1191 Views from the coast are relatively wide and encompass relatively close hillsides across the bay, which tend to draw the eye but provide limited containment. Views from the elevated hillsides overlook the settled coastline as part of broad panoramic views that take in the wider seascape with OWF. Views from sea to land are backdropped by the relatively consistent elevation of the low hills that form the wooded hinterland and are characterised by extensive settlement.



- 1192 Value of the SCA: Medium. No part of the seascape or coastal landscape of this SCA form part of a locally or nationally designated landscape or Heritage Coast. The quality of the SCA is not heightened by the existence of landscape or historic features of note. It is locally valued as the setting to the settlements.
- 1193 **Susceptibility to change: Medium**. The SCA is quite expansive within the wide bays and its scale further increases with distance from the coast. It is highly characterised by the containing landform, route infrastructure and built development along the coast.
- 1194 There would be no change to the characterising components of this SCA and the AyM array area seems to occur beyond this SCA and the Rhyl Flats OWF, located within the open seascape of SCA 28 and SCA F at a range of approximately 5 km from the northern edge of the SCA at its closest point.
- 1195 Susceptibility to the AyM offshore elements is moderated by distance and the fact that the seascape is influenced by coastal development including infrastructure and settlement. The presence of OWF development within and beyond the boundary of this SCA has an existing influence and this characteristic would become more defined by the proposals.
- 1196 **Sensitivity Medium -** taking account of the assessed medium-high value of the seascape and the medium susceptibility to the proposed change to it.

1197 Construction/ Decommissioning: Low during the early stages of construction and latter stages of decommissioning otherwise medium. Activity within array area and vessel movements will be intensified in the vicinity. Existence and visibility of the WTG and OSP structures as they are constructed or dismantled at a minimum range of approximately 5 km. This will extend the OWF influence further across a wide field of the views out to sea from the northern extents of this area where this influence would be seen in the context of the operational OWF but as part of the wide-open seascape.



- 1198 From the coast the construction and decommissioning of the AyM offshore elements will be visible at a greater distance of approximately 12-17 km. It will be seen across parts of wide sea views that are sometimes from elevated locations. Views out to sea include a wider context or foreground of extensive development characteristics.
- 1199 Operation (MDS A): Medium. There will be no physical change to the character of this SCA. The only changes are as a result of visibility of the AyM Offshore Elements in views from the SCA as part of its wider setting. The AyM offshore elements will extend the existing OWF character influence through the introduction of views of up to 34 tall, widely spaced, moving WTGs and two OSPs from parts of this SCA where there are unobstructed views; this marks a reduction from 48 WTGs visible at the PEIR stage in response to stakeholder feedback. Theoretical visibility of the AyM WTGs (MDS A) from within the SCA is illustrated on Figure 15 (Annex 10.5).
- 1200 The range of this theoretical visibility is between 5 km and 17 km. This will add to the existing OWF influence on the seascape character by extending the GyM OWF further west.
- 1201 The GyM OWF sits at a greater distance than the more prominent Rhyl Flats in views from this coastline. The scale of the AyM WTGs when compared with the WTGs of the operational OWF is relatively large making them substantially more prominent in views from the coastal parts of the SCA. The generally wide panoramic views from the coast will include a further OWF within their extent as is demonstrated by Viewpoints 119, 20. 21, 29 and 58 (Annex 10.6). This in turn will increase their characterising influence, particularly when viewed in combination with the other OWFs.

- 1202 Construction/ Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate effect (Non-significant) adverse, short-term temporary.
- 1203 Operation (MDS A): Moderate effect (Non-significant), adverse, long term, reversible.



## SCA C - Vale of Clwyd

- 1204 This SCA covers the coastline and coastal waters between the minor headland to the east of Llanddulas and the land that separates Rhyl and Prestatyn in the east where it extends inland to the edge of the Clwydian Range.
- 1205 This is a relatively straight north-north-west facing section of coast extending to approximately 12 km in length at the coast.
- 1206 There is a broad, shingle and sandy shore protected by sea defences in the form of walls and groynes.
- The coast is almost entirely fringed by continuous residential and holiday development, extending at least 0.5 km inland. The coastal roads are a prominent feature with development to the east of Abergele located around the A548 which runs parallel to the shore. This includes large areas of single-storey, 20th century suburban type development and extensive caravan parks with associated amenities. Further west the A55 and rail line are prominent features largely separating the towns of Abergele and Llanddulas from the coast. Inland and between these settlements is the rising, wooded hillside upon which Gwyrch Castle is situated (Viewpoint 50, Annex 10.6).
- 1208 A flat area of flat pastoral floodplain of the Valley of Cwyd extends inland to the south of Rhyl. This area has no intervisibility with the sea, so it has been excluded from the SCA. To the south-east and providing eastern containment to the valley is the north-western extent of the north to south running Clwydian Range where viewpoint 24 is located.
- The North Hoyle OWF is the located outside this SCA to the north-east in SCA F. The Rhyl Flats OWF is located at a similar distance to the north-west in SCA B. These OWF along with the more expansive GyM OWF beyond are key elements of views out to sea (as illustrated by Viewpoints 22 and 23) as well as the elevated upland areas (illustrated by viewpoints 24 and 50) (see Annex 10.6). The Douglas oil and gas platform complex is often visible on the horizon beyond GyM OWF. Marine activity is generally associated with these offshore developments although large vessels can sometimes be seen on the distant horizon.



- 1210 There are wide panoramic views of the large-scale seascape with views along this straight coast backed to some extent by views of coastal land to west. Views from sea are of the very narrow, flat, developed coastal strip, backed in places by a low horizon of hills to the south-west and south-east.
- 1211 Value of the SCA: Medium. No part of the seascape of this SCA forms part of a locally or nationally designated landscape or Heritage Coast. Small areas of the upland backdrop to the SCA lie within designated landscapes. The SCA is locally valued as the settings for the settlements.
- 1212 A small area of the upland area to the southwest is located within the Conwy SLA Betws yn Rhos. A very small area of the SCA is located within the Clwydian Range and Dee Valley AONB.
- 1213 **Susceptibility to change: Medium.** The SCA is large, scale and expansive beyond the linear coastline. It is highly characterised by the containing route infrastructure and built development along the coast.
- 1214 There would be no change to the characterising components of this SCA and the AyM array area occurs beyond this SCA located within the open seascape of SCA 28 and SCA F. It would be seen in the same part of sea views affected by the operational OWFs of Rhyl Flats and GyM, at a range of approximately 8 km from the north-western edge of the SCA at its closest point, which is immediately adjacent to the Rhyl OWF and therefore markedly characterised by it through visibility.
- 1215 Susceptibility to the AyM offshore elements is moderated by distance and the fact that the seascape is influenced by coastal development including infrastructure and settlement. The presence of OWF development has a strong existing influence and this characteristic would become more defined by the proposals.
- 1216 **Sensitivity Medium -** taking account of the assessed medium-value of the seascape and the medium susceptibility to the proposed change to it.



- 1217 Construction/ Decommissioning: Low during the early stages of construction and latter stages of decommissioning otherwise medium. Activity within array area and vessel movements will be intensified in the vicinity. Existence and visibility of the WTG and OSP structures as they are constructed or dismantled at a minimum range of approximately 8 km. This will intensify the OWF/ industrial seascape character largely within parts of the view that are already affected by such activity and structures. This influence would be seen in the context of the operational OWF but as part of the wide-open seascape.
- 1218 From the coast the construction and decommissioning of the AyM offshore elements will be visible at a greater distance of approximately 16-20 km. It will be seen across parts of wide sea views that are sometimes from elevated locations. Views out to sea include a wider context or foreground of extensive development characteristics.
- 1219 Operation (MDS A): Medium. There will be no physical change to the character of this SCA. The only changes are as a result of visibility of the AyM Offshore Elements in views from the SCA as part of its wider setting. The AyM offshore elements will extend the intensify OWF character influence through the introduction of views of up to 34 tall, widely spaced, moving WTGs and two OSPs from parts of this SCA where there are unobstructed views. Theoretical visibility of the AyM WTGs (MDS A) from within the SCA is illustrated on Figure 15.
- 1220 The range of this theoretical visibility is between 8 km and 20 km. This will add to the existing OWF influence on the seascape character by extending it further west.
- The GyM OWF sits at a greater distance than the more prominent Rhyl Flats and North Hoyle OWFs in views from this coastline. The scale of the AyM WTGs when compared with the WTGs of the operational OWF is relatively large making them appear similarly prominent in views from the coastal parts of the SCA when compared to the closer range Rhyl Flats OWF (see Viewpoint 22: Abergele. The generally wide panoramic views from the coast will include a further intensification of OWF within their extent as is demonstrated by Viewpoints 22, 23, 24 and 50.



- 1222 Construction/ Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate effect (Non-significant) adverse, short-term temporary.
- 1223 Operation (MDS A): Moderate effect (Non-significant) adverse, long term, reversible.

## Effects on the character and qualities of the Great Orme Heritage Coast

- 1224 The Great Orme Heritage Coast includes both the land and a narrow strip of sea around the coastline.
- 1225 The landscape and seascape character assessments have identified the areas within the Great Orme Heritage Coast where significant effects on landscape and seascape character may arise as a result of visibility of the AyM OWF in the seascape at a range of between 10 km and approximately 14 km.
- 1226 The Great Orme itself is located within LCA 10 Great Orme and Creuddyn Peninsula. The assessment of the effects on this LCA can be found from page 352 and includes reference to the Heritage Coast status and the values and qualities associated with it. The findings of that assessment, relevant to the part of LCA10 that coincides with the Great Orme Heritage Coast are set out below.

## Magnitude of change

1227 Magnitude of change during construction, operation and decommissioning (MDS A): Low during the early stages of construction and latter stages of decommissioning otherwise Medium at the coastal edge between the north-west point of Great Orme and the toll booth and from elevated locations on the Great Orme (extending inland from the north by approximately 1 km). Reducing to Low or No change further inland where views are restricted or have a developed foreground.



- 1228 Construction, Decommissioning: Moderate-Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Moderate effect (Significant) adverse, short-term temporary at the coastal edge between the north-west point of Great Orme and the toll booth and from elevated locations on the Great Orme (extending inland from the north by approximately 1 km) and the north face of Little Orme. Moderate-Minor to Minor effect (Non-significant) adverse, short-term temporary elsewhere within the LCA.
- Operation (MDS A): Moderate effect (Significant) adverse, long term, reversible at the coastal edge between the north-west point of Great Orme and the toll booth and from elevated locations on the Great Orme (extending inland from the north by approximately 1 km) and the north face of Little Orme. Moderate-Minor to Minor effect (Non-significant) elsewhere within the LCA.
- 1230 Also of relevance to the landscape and coastal seascape areas of the Great Orme Heritage Coast are the findings of the assessments of the effects on SCA A Llandudno Bay (starting at page 358), SCA 28 Northeast of Anglesey (starting at page 82) and SCA 2 Conwy Bay (starting at page 254).
- The findings of these assessments as they relate to the area coincidental with the Great Orme Heritage Coast are that the magnitude of change would be Low during the early stages of construction and the latter stages of decommissioning but otherwise Medium. This would result in Minor effects (Non-significant) during the early stages of construction and the latter stages of decommissioning and Moderate effects (Significant) otherwise during construction/ decommissioning and operation.
- 1232 The effects on the Great Orme Heritage Coast are therefore assessed as Moderate-Minor (Non-significant) to Moderate (Significant) during construction and decommissioning and Moderate (Significant) during operation. This would occur as a result of views of the AyM OWF from the Great Orme itself and also as part of its context from the wider area. Denbighshire



#### Effects on visual resource

- 1233 Effects on the Denbighshire visual resource are considered primarily in relation to representative viewpoints (Annex 10.6). Thereafter, where visual receptors require further assessment the effects on the views of people in settlements and using the Wales Coast Path are also assessed.
- 1234 The assessments of the representative viewpoints then inform the assessments of the effects on landscape character, seascape character and the effects on the Special Qualities of the Clwydian Range and Dee Valley AONB, which extends into Flintshire.
- Design refinements following stakeholder feedback have reduced the extent of the horizontal field of view affected by the AyM OWF by removing the westerly area of the AyM array area and the WTGs therein. The number of WTGs visible within the remaining AyM array area has also been reduced in all views from seascape, landscape and visual receptors.
- 1236 The main focus of the assessment is on MDS A, however, an agreed selection of viewpoints also include assessment of MDS B.
- 1237 Effects on the representative viewpoints are assessed in Table 12 and thereafter are used to inform the assessments of the effects on visual, seascape and landscape receptors.



Table 12: Effect on Denbighshire Representative Viewpoints During Construction/ Decommissioning and Operation.

VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
23: Rhyl Aquarium	Located within the Coastal & Estuarine Flats (Prestatyn to Abergele) landscape unit.	Construction/ Decommissioning: Negligible to Low	Construction/ Decommissioning  Minor effect (Non-significant),
	Rhyl Aquarium is on the coast of SCA C – Vale of Clwyd and encompasses views across SCA B – Colwyn Bay and SCA F – North Wales Open Waters beyond.  The viewpoint is located on the promenade between the sea wall and the Aquarium.	Activity within array area at 18.9 km and vessel movements intensified in the vicinity during construction/ decommissioning work which is largely below sea surface or of limited extent - negligible.	adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.
	The viewpoint is representative of views from the promenade and visitor facilities as well as from the WCP and NCR 5 which follow the route.	Visibility of WTG structures as they are constructed/commissioned or dismantled, which will occur over a period of less than 18 months in each instance – Low.	Moderate-Minor effect (Non-significant) adverse, short-term temporary during latter stages of construction phase and early
	It is not representative of views from the settlement of Rhyl. This is with the exception of some tall, flatted properties on the south-	Operation (MDS A): Low	stages of decommissioning.
	western coastal edge along West Parade where they have	Movement and structures of 34 WTGs visible as	Operation (MDS A)
	open views across the sea and an undeveloped foreground.  Elsewhere sea views from the settlement are limited or have a developed foreground.	prominent elements on the horizon at a range of 19.5 km.  2 OSPs just visible amongst these.	Moderate-Minor effect (Non-significant), adverse, long term, reversible.
	Views out to sea occur across approximately 160 degrees of the	WTGs visible across approximately 29 degrees of	Likelihood of effect
	field of view from this viewpoint. They are contained in the west by the Great Orme Llandudno Bay, Little Orme, Penrhyn Bay,	the wide sea expanse (160 degrees) largely in the vicinity of but also extending the existing	Requires Good, Very Good or Excellent visibility.
	Rhos Point and Colwyn Bay and to the north-east by the close-range buildings along the promenade.	influence of the Rhyl Flats and GyM OWFs by spanning the existing gap between them.	Visibility frequency at this range: 75%.
	The rising landform of the edge of the SNP can be seen further inland to the west, above the coastal strip and smaller, wooded hills.  OWFs are a feature of the seascape in the views to the north-	The more distant WTGs of the AyM array area WTGs appear similarly scaled and spaced to the closer Rhyl Flats WTGs, although they are further away. The rotor diameters of the closest AyM	Occurs most frequently in Summer but also in Winter.
	east with the closest being North Hoyle at 9.4 km and Gwynt- y- Mor stretching across the widest field of view at a range of 13.2	OWF WTGs appear slightly larger than those of the Rhyl OWF.	
	km. Rhyl Flats and Burbo Bank and Extension are also seen across the sea skyline at a distances of 9.9 km, 26.2 km and 20 km	The location of both OWFs on the skyline in this view assists with this perceived integration.	
	respectively.	The GyM WTGs are both smaller in scale than the	
	Whilst there is an apparent small gap between the Rhyl Flats and GyM wind farm operational OWF development is seen spanning	AyM WTGs and are further away from this viewpoint than Rhyl Flats OWF so the scale	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	across approximately 117 degrees of the field of view in Very Good or Excellent visibility conditions.	comparison is greater. They are also more densely spaced.	
	The long sweeping beach is a key feature of the coastline here, however its expanse is broken up by numerous groins and low stone structures and marker signs that are indicative of a pipeline. This is seen in the immediate context of settlement and urban infrastructure including large-scale buildings and structures, prominent street lighting and large showground rides.	The combined horizontal field of view of OWF remains as it is currently with the key difference being that the existing gap (7 degrees of the field of view) is infilled by AyM WTGs and the vertical scale of the OWF is slightly larger than Rhyl Flats but markedly larger than GyM. The greater	
	Settlement, large areas of caravan parks and recreational facilities can be seen as part of the wider view, extending along the coast up the otherwise frequently wooded hill slopes to the west.	distance of the AyM array area will however often ensure that these turbines are less visible than those at closer range.  The separation of the WTGs from the coast by an	
	Gwyrch Castle can be seen on the hillside to the south-west.	expanse of water and the potential to see the	
	sea and sky between the WTGs set within a la	sea and sky between the WTGs set within a large expanse of seascape that is characterised by	
	Not located within a National or Local landscape designation.	existing OWFs and influenced by coastal	
	LANDMAP visual and sensory evaluation – low	development are factors that assist in increasing	
	Likely to be locally valued as the outlook from this section of the coast.	the capacity of this view to accommodate AyM.  Mitigation measures	
	Susceptibility to change: Medium-high	As a result of stakeholder feedback, the AyM	
	The view is representative of receptors visiting, walking or cycling along this coastal edge.	array area has been reduced. This has reduced the WTG numbers seen within this view. Whilst this has resulted in a reduction in impact, it has not	
	Views out to sea are part of the visual setting for these transient receptors as well as people within the residential properties.	been sufficient to alter the level of magnitude of change assessed in the PEIR.	
	This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).		
	Susceptibility is moderated by distance to AyM array area and context and current outlook towards the AyM array area contains many development features including operational OWF.		
	<b>Sensitivity: Medium-high</b> - taking account of the assessed medium value of the viewpoint and the medium-high susceptibility to the proposed change to it.		



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
24: Graig Fawr	Located within the Hills, Lower Plateau and Scarp Slopes landscape unit.	Construction/ Decommissioning: Negligible to Low	Construction/ Decommissioning  Minor effect (Non-significant),
	Graig Fawr is at the transition between SCA C – Vale of Clwyd and SCA D – Clwydian Hills at their inland boundaries.  Encompasses views across SCA B – Colwyn Bay and SCA F – North Wales Open Waters beyond.	Activity within array area at 23.6 km and vessel movements intensified in the vicinity during construction/ decommissioning work which is largely below sea surface or of limited extent - negligible.	adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.
	This viewpoint is located on the summit of the small hill, Graig Fawr (153m AOD) at the trig point. This area of open access land is a Local Nature Reserve and has parking and several PRoW across it and providing access from nearby Meliden and Dyserth.	Visibility of WTG structures as they are constructed/commissioned or dismantled, which will occur over a period of less than 18 months in each instance – Low.	Moderate-Minor (Non-significant) adverse, short-term temporary during latter stages of construction phase and early
	There are links to the North Wales Path and Offa's Dyke Path	Operation (MDS A): Low	stages of decommissioning.
	LDRs which run to the west and east of the hill respectively.  The viewpoint is a marked 360-degree Ordnance Survey viewpoint.	Movement and structures of 34 WTGs visible as prominent elements on and near to the horizon at a range of 24.5 km; this marks a reduction from	Operation (MDS A)  Moderate-Minor (Non- significant), adverse, long term,
	Views out to sea occur across approximately 135 degrees of the field of view from this viewpoint. They are contained in the west	48 WTGs visible at the PEIR stage but reduced in response to stakeholder feedback.	reversible. Operation (MDS B)
	by the Great Orme, Llandudno Bay, Penrhyn Bay Colwyn Bay and to the north-north-east by the small, wooded and mast topped hill of Bryn-llwyn.	2 OSPs just visible amongst these. WTGs visible across approximately 23 degrees of the field of view largely in the vicinity of but also	Moderate-Minor (Non-significant), adverse, long term, reversible.
	OWFs are a feature of the seascape in the views to the north-	extending the Rhyl Flats and GyM OWFs by	Likelihood of effect
	east with the closest being North Hoyle at 11.1 km and Gwynt- y- Mor stretching across the widest field of view at a range of 15.9 km Rhyl Flats and Burbo Bank and Extension are also seen across	spanning the existing gap between them.  The more distant WTGs of the AyM array area WTGs appear similarly scaled and spaced to the	Requires Very Good or Excellent visibility.
	the sea skyline at distances of 15.1 km, 23.6 km and 18.4 km respectively.	closer Rhyl Flats WTGs, although they are further away. The closest of the AyM WTGs appear	Visibility frequency at this range: 64%.
	Whilst there are apparent gaps between the Rhyl Flats and GyM OWFs and the North Hoyle and Burbo Bank Extension OWFs operational OWF development is seen intermittently spanning across approximately 100 degrees of the field of view.	approximately 25% larger than the WTGs of the Rhyl array OWF, however their location on and near to the skyline raises their tip height more markedly above the level of the Rhyl Flats OWF	Occurs most frequently in Summer.
	The elevation of the viewpoint means that the operational OWFs are all seen at different positions within the seascape rather than only on and above the horizon. Parts of the WTGs extend above	WTGs. Importantly though distance does make a difference to the relative visibility of the turbines so that the comparison is less apparent.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	the horizon. Their different layouts and scales/ extents makes for a discordant cumulative arrangement.  The view north-west includes areas of arable farmland subdivided by hedges and infrequent hedgerow trees into moderately large, regular fields across a relatively flat, settled plain.  There are also large areas of settlement, including Rhyl and Prestatyn and caravan parks visible linking the towns along the	The GyM WTGs are both smaller in scale than the AyM WTGs and are further away from this viewpoint than Rhyl Flats OWF so the scale comparison is greater. They are also more densely spaced making the widely spaced taller WTGs of AyM more dissimilar than might otherwise be the case.  The combined horizontal field of view of OWF	
	coast. Immediately below the hill is the smaller settlement of Meliden, which can be seen at close proximity.	remains as it is currently with the key difference being that the existing gap (9 degrees of the field	
	To the north the land rises up to a higher elevated ridge that includes several more notable small summits. This higher land has more pastoral grass cover and woodland areas. It extends southwards ascending above the Vale of Clwyd as the Clwydian Range. The rocky summit of Graig Fawr appears, from this vantage point, as part of this upland area but is slightly separated from it by the valley, routes and settlement to the	of view) is infilled by AyM WTGs and the vertical scale of the OWF is slightly larger than Rhyl Flats but markedly larger than GyM. The greater distance of the AyM array area will however often ensure that these turbines are less visible than those at closer range.  The separation of the WTGs from the coast by an	
	south.  This valley separates Graig Fawr from the quarried landform of Ochr-y-foel.	expanse of water and the potential to see the sea and sky between the WTGs set within a large expanse of seascape that is characterised by	
	The higher landforms of SNP can be seen rising beyond the lower lying landform to the south of Colwyn Bay/ Abergele and forming the western side slopes of the Vale of Clwyd.	existing OWFs and influenced by coastal development are factors that assist in increasing the capacity of this view to accommodate AyM.  Operation (MDS B): Low	
	Value of view: High	Movement and structures of 50 WTGs visible as	
	Located within the Clwydian Range and Dee Valley AONB.	prominent elements on and near to the horizon	
	LANDMAP visual and sensory evaluation – outstanding	at a range of 24.4 km; this marks a reduction from	
	Susceptibility to change: Medium-high	91 WTGs visible at the PEIR stage but reduced in response to stakeholder feedback.	
	Receptors are likely to be people walking with a focus on reaching the summit for exercise and to obtain the varied views from the vantage point.	2 OSPs just visible amongst these. WTGs visible across a slightly wider extent of the	
	The contrast of the nature reserve environment of the hill with the otherwise semi-urban area provides readily available, attractive opportunities to interact with the natural world.	horizontal field of view to the east of the array area when compared with MDS A. This occurs in the vicinity of but also extending the Rhyl Flats	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	People are transient so views from this location will be relatively short in duration.	and GyM OWFs by spanning the existing gap between them.	
	This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility is moderated by the relationship of the AyM array	The WTGs of the AyM OWF appear similarly scaled and spaced to the closer Rhyl Flats and North Hoyle WTGs, however their location on and	
	area to the viewpoint, which is at a considerable distance and current outlook contains many development features.	near to the skyline raises their tip height above the level of the Rhyl Flats OWF WTGs.	
	<b>Sensitivity: High</b> - taking account of the assessed high value of the viewpoint and the medium-high susceptibility to the proposed change to it.	Importantly though distance does make a difference to the relative visibility of the turbines so that the comparison is less apparent.	
		The GyM WTGs are both smaller in scale than the AyM WTGs and are further away from this viewpoint than Rhyl Flats and North Hoyle OWF so the scale comparison is greater. Although MDA B appears more densely arranged across the western part of the AyM array area the density of the AyM MDA B layout is, in part, akin to the density of the Rhyl OWF WTGs.	
		The combined horizontal field of view of OWF remains as it is currently with the key difference being that the existing gap (9 degrees of the field of view) is infilled by AyM MDA B WTGs and the vertical scale of the OWF is similar to Rhyl Flats and North Hoyle but markedly larger than GyM. The greater distance of the AyM array area will however often ensure that these turbines are less visible than those at closer range.	
		The separation of the WTGs from the coast by an expanse of water and the potential to see the sea and sky between the WTGs set within a large expanse of seascape that is characterised by existing OWFs and influenced by coastal development are factors that assist in increasing the capacity of this view to accommodate AyM.	
		Mitigation measures	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
		As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced the WTG numbers seen within this view. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	
25: Prestatyn Nova Centre	Located within the Coastal & Estuarine Flats (Prestatyn to Abergele) landscape unit.	Construction/ Decommissioning: Negligible to Low	Construction/ Decommissioning  Minor effect (Non-significant),
	Prestatyn is on the coast of SCA D – Clwydian Hills with views over SCA C – Vale of Clwyd and SCA B – Colwyn Bay and SCA F – North Wales Open Waters beyond.	Activity within array area at 21.2 km and vessel movements intensified in the vicinity during construction/ decommissioning work which is	adverse, short-term temporary during early stages of construction phase and latter
	The viewpoint is located on the promenade between the Nova Centre and the Beach Road East Car Park.	largely below sea surface or of limited extent - negligible.	stages of decommissioning phase.
	The viewpoint is representative of views from the promenade and visitor facilities as well as from the WCP, Offa's Dyke Path LDR and NCR 5 which follow the route.	Visibility of WTG structures as they are constructed/commissioned or dismantled, which will occur over a period of less than 18 months in	Moderate to Minor (Non-significant) adverse, short-term temporary during latter stages of
	It is not generally representative of views from the settlement of	each instance – Low.  Operation (MDS A): Low	construction phase and early stages of decommissioning.
	Prestatyn. Sea views from the settlement are limited or have a developed or partially screening foreground.	Movement and structures of 34 WTGs visible as	Operation (MDS A)
	Views out to sea occur across approximately 180 degrees of the field of view from this viewpoint. They are contained in the west	prominent elements on the horizon at a range of 28.2 km.	Moderate to Minor (Non-significant), adverse, long term,
	by the Great Orme Llandudno Bay, Penrhyn Bay and Colwyn	2 OSPs just visible amongst these.	reversible.
	Bay with the northern edge of Rhyl also apparent. To the northeast the views are constrained by a sea wall and parking.	WTGs visible across approximately 23 degrees of the field of view largely in the vicinity of but also	Likelihood of effect
	The rising landform of the edge of the SNP can be seen further inland to the west, above the coastal strip and smaller, wooded hills.	extending the GyM OWF by spanning part of the existing gap between this and the Rhyl Flats OWF.	Requires Very Good or Excellent visibility.  Visibility frequency at this range:
	OWFs are a feature of the seascape in the views to the north with the closest being North Hoyle at 7.8 km and Gwynt- y- Mor	The more distant WTGs of the AyM array area WTGs appear similarly spaced to the closer range GyM WTGs.	62%. Occurs most frequently in Summer.
	stretching across the widest field of view at a range of 12.6 km. Rhyl Flats and Burbo Bank and Extension are also seen across the sea skyline at distances of 13.9 km, 21 km and 15.3 km respectively.	The AyM WTGs appear similar in scale to those of the North Hoyle OWF although they are further away. The rotor diameters of the AyM WTGs do, however, appear larger.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Whilst there is an apparent gap between the Rhyl Flats and GyM OWFs and North Hoyle and Burbo Bank Extension OWFs, operational OWF development is seen spanning across approximately 127 degrees of the field of view.	The gap remaining between the AyM and Rhyl Flats OWFs appears approximately the same as the gap between the adjacent two rows of Rhyl Flats OWF.	
	The long sweeping beach is a key feature of the coastline here, however its expanse is broken up by numerous stone groins. The beach and seascape beyond are seen in the immediate context of settlement and urban infrastructure including large-scale buildings and structures and prominent street lighting/signage. Marker signage and buoys can be seen extending from the coast out to sea.  Settlement can be seen as part of the wider view, extending along the coast up the otherwise frequently wooded hill slopes to the west.	The location of all OWFs on the skyline in this view assists with this perceived integration.  The GyM WTGs are both smaller in scale than the AyM WTGs and are further away from this viewpoint than the Rhyl Flats and North Hoyle OWF so the scale comparison is greater.  The combined horizontal field of view of OWF remains as it is currently with the key difference being that part of the existing gap (4 degrees of the field of view) is infilled by AyM WTGs.	
	Value of view: Medium  Not located within a National or Local landscape designation.  LANDMAP visual and sensory evaluation – low  Likely to be locally valued as the outlook from this section of the coast.  Susceptibility to change: Medium-high  The view is representative of receptors visiting, walking or cycling along this coastal edge.  Views out to sea are part of the visual setting for these transient receptors.	development are factors that assist in increasing the capacity of this view to accommodate AyM.	
	This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility is moderated by the relationship of the AyM array area to the viewpoint, which is at a considerable distance and current outlook towards the AyM array area contains many development features including operational OWF.  Sensitivity: Medium-high - taking account of the assessed medium value of the viewpoint and the medium-high susceptibility to the proposed change to it.	As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced the WTG numbers seen within this view. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	



## Rhyl

- 1238 Rhyl lies on the north-east coast of Wales at the mouth of the River Clwyd, in Denbighshire. Kinmel Bay and the resort of Towyn, Prestatyn, and Rhuddlan lie to the west, east and south, respectively. Rhyl is part of the Abergele/Rhyl/Prestatyn urban area. The town is well connected by the A525 to the A55/ North Wales Expressway and direct links to the M56 M6 motorway; direct rail links connecting with Holyhead and the super ferries from Ireland.
- 1239 Previously an elegant Victorian resort, deterioration after World War II led to improvements to the seafront funded by the European Union. Billed as the Family Fun Centre of North Wales, there are six miles of beaches between Rhyl and Prestatyn. Attractions also include Rhyl Children's Village theme park, the Sky Tower on the West Parade, the SeaQuarium, the SC2 (an indoor/ outdoor water park), a New Pavilion Theatre, and a redeveloped Pavilion Theatre on the East Parade.
- Lying on the east side of the River Clwyd the town extends inland by approximately 2.5 km across relatively flat terrain. The West and East Parades are set back from the promenade and beach by a swathe of other uses which include parks, public open space, visitor attractions, parking and a hotel. Behind that, properties ranging from five storey flats to lower buildings with amusement arcades and shops at street level line the southern edge of the wide road. Many of these buildings are holiday accommodation of some kind. Development in the rest of the town is relatively low rise with the tower of the Town Hall forming a notable skyline feature, along with the Sky Tower, from the wider area.
- 1241 Apart from incidental views such as occur along aligned streets views out across the Irish Sea are available only from the coastal strip and the north-west facing properties along West and East Parade. These views include OWFs with Rhyl Flats and North Hoyle at closest proximity and Gwyt y Mor extending across a wide sector of the views.



- 1242 To avoid duplication, this assessment considers the effects on people within the residential areas and the assessments of the effects on Viewpoint 23: Rhyl (Annex 10.6) and on Wales Coast Path Section P, which runs along the promenade, consider the effects on users of the coastal amenities at Rhyl. *Value of views: Medium*. The settlement is not within a National or Local landscape planning designation. Views out to sea are a valued aspect of the town's setting.
- Susceptibility to change: Medium for locations and properties along the coastal strip and low/ negligible within other parts of the town. It is possible to gain views from the coastal strip and the aligning properties out across the Irish Sea to the north-west in the direction of the AyM array area. The majority of the settlement has no views out across the Irish Sea due to the low-lying nature of the town and the visual screen created by the seafront properties.
- 1244 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 19 km and the developed context of any views towards it, including operational OWFs.
- 1245 **Sensitivity to change: Medium to Low** taking account of the assessed medium value of the views and the low to negligible susceptibility to the proposed change to them.

1246 Figures 18.1b and 18.2b (Annex 10.5) illustrate the blade tip and hub height ZTV at Rhyl. This shows theoretical visibility of parts of 29-34 turbines across all of the settlement; this marks a reduction from 48 WTGs visible at the PEIR stage in response to stakeholder feedback. This does not reflect actual visibility of the AyM OWF from Rhyl which is largely confined to the coastal strip and the properties fronting it. The majority of the settlement will have no or limited views of the AyM OWF due to the low-lying nature of the town and the visual screen created by the seafront properties.



- 1247 Viewpoint 23 (Annex 10.6) shows the open views from the Rhyl promenade towards the AyM array area in the seascape where there are operational OWFs. This viewpoint (where the magnitude of change has been assessed as Low) provides an indication of the visibility that would be gained from properties close to the coast, which are an important component of the settlement. However, the properties generally have a foreground that consists of other development of some kind rather than such a direct relationship with the sea, which is gained from the beach and promenade assessed in relation to Viewpoint 23.
- 1248 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Low for seaside properties, or negligible for those without views across the sea.

- 1249 Construction, Decommissioning: Minor effect (Non-significant) during the early stages of construction and latter stages of decommissioning otherwise Minor effect (Non-significant), adverse, short-term temporary.
- 1250 Operation (MDS A): Minor effect (Non-significant), adverse, long term, reversible.

## Prestatyn

## Baseline description and sensitivity

1251 Prestatyn is a seaside town located on the Denbighshire coastline, to the east of Rhyl. Prestatyn is part of the Abergele/Rhyl/Prestatyn urban area. It has good connections to the surrounding area and road network. The North Wales Coast Line links to Holyhead and Chester to the west and east, respectively. Although the town is not on Offa's Dyke, it is located at the northern end of Offa's Dyke Path (LDR). It is on the Wales Coast Path and marks the western end of the Clwydian Way.



- 1252 The remains of Roman baths and a Neolithic mound nearby, the Gop, and Ffrith Beach Festival Gardens are amongst Prestatyn's attractions. A further modern attraction is the Nova leisure and entertainment complex, previously 'the Lido', established in 1923 and redeveloped in 2015. There are also coastal golf courses to the west and east of the settlement.
- 1253 The majority of the settlement sits on relatively flat land however the southern edge rises up the slopes of the north end of the Clwydian Range of hills.
- 1254 The properties are set back from the coastal edge by an area that includes amenity uses but also flood defences and therefore tends to have a degree of elevation and low-level screening. This ranges from a raised area of public open space/ grassland, sand dunes, retaining walls and walls alongside amenity buildings. The majority of housing is single or two storeys however the main areas of development close to the coast are holiday and caravan parks.
- 1255 Views out to sea from this northerly area are largely confined to the coastal strip. However, the land and settlement rises to the south so that views of the sea are possible from parts of the higher settlement over and between the intervening urban area.
- 1256 Views north over the Irish Sea include operational OWFs with Rhyl Flats seen closest to the shore and GyM extending across the sea horizon beyond.
- 1257 To avoid duplication this assessment considers the effects on people within the residential areas and the assessments of the effects on Viewpoint 25: Prestatyn Nova Centre (Annex 10.6) and on Wales Coast Path Section P, which runs along the promenade, consider the effects on users of the coastal amenities at Prestatyn.
- 1258 Value of views: Medium. The settlement is not within a National or Local landscape planning designation. Views out to sea are a valued aspect of the town's setting. The Cwydian Range and Dee Valley AONB forms part of its setting to the south.



- Susceptibility to change: Medium for locations and properties along the coastal strip and low/ no change within other parts of the town. It is possible to gain views from the coastal strip and the elevated properties to the south out across the Irish Sea to the north-west in the direction of the AyM array area. The majority of the settlement has no views out across the Irish Sea due to the otherwise low-lying nature of the town and the visual screen created by the seafront properties.
- 1260 Susceptibility is moderated by the relationship of the viewpoint to the AyM array area, which is at a distance of 21 km and the developed context of any views towards it, including operational OWFs.
- 1261 **Sensitivity to change: Medium**-taking account of the assessed medium value of the views and the medium susceptibility to the proposed change to them.

- 1262 Figures 18.1b and 18.2b (Annex 10.5) illustrate the blade tip and hub height ZTV at Prestatyn. This shows theoretical visibility of parts of 29-34 turbines across much of the settlement; this marks a reduction from 48 WTGs visible at the PEIR stage in response to stakeholder feedback. The ZTVs illustrate that the coastal landforms prevent theoretical visibility at ground level (and therefore from low properties) from a broad swathe of the coastal areas of caravan parks, housing and amenity uses behind.
- 1263 The otherwise widespread theoretical visibility does not reflect actual visibility of the AyM OWF from the residential areas of Prestatyn, which is largely confined to views out over the coastal strip from some of the properties fronting or overlooking it as well as some visibility from raised areas to the south. The magnitude of change is moderated in any views from the elevated parts of the wider settlement which would have a wider context and foreground that contains some form of development.



- 1264 Viewpoint 25 (Annex 10.6) shows the open views from the Prestatyn promenade towards the AyM array area in the seascape where there are operational OWFs. This viewpoint also provides an indication of the visibility that would be gained from properties close to the coast, which are an important component of the settlement. However, such visibility is limited in places by the intervening landform that separates the promenade from the settlement area. The views out from the properties and amenities generally have a foreground that consists of other development of some kind rather than such a direct relationship with the sea, which is gained from the beach and promenade.
- 1265 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Low for a limited area of seaside properties, low or negligible for those without direct views across the sea or where visibility is across the intervening urban area.

- 1266 Construction, Decommissioning: Minor effect (Non-significant), adverse, short-term temporary.
- 1267 Operation (MDS A): Minor effect (Non-significant), adverse, long term, reversible.

## Offa's Dyke LDR

- 1268 The location of Offa's Dyke LDR along with the theoretical visibility of AyM OWF from it is shown in Figure 18.1 (Annex 10.5).
- 1269 Viewpoints running close to the route are included in Annex 10.6 as Viewpoints 25, 26, 24 and 54 with Viewpoints 25 and 24 assessed in Table 12 as **non-significant.**
- 1270 The effects on these closest parts of Offa's Dyke LDR have been assessed as **non-significant** largely due to the fact that views of AyM OWF are beyond the operational OWFs.



- 1271 The ZTV in Figure 10.1 indicates that these viewpoints would represent the highest levels of magnitude of change along Offa's Dyke LDR and include receptors of relatively high susceptibility and value, as would be the case from Offa's Dyke LDR.
- 1272 The effect on Offa's Dyke LDR is therefore assessed as **Moderate-Minor effect (Non-significant).**

#### NCR 5

- 1273 Figure 18.1 (Annex 10.5) shows that the stretch of NCR 5 between Rhyl and where the cycle route turns inland through Prestatyn follows the same route as Wales Coast Path Section Q Gronant Dunes/ Point of Ayr.
- 1274 After leaving the coast the views out to sea from NCR 5 are limited and views of AyM OWF are beyond the operational OWFs.
- 1275 The effect of the introduction of AyM OWF to the views from NCR 5 is **Minor effect Non-significant)**.

#### A55 North Wales Expressway

- 1276 The A55, North Wales Expressway runs inland through Denbighshire with view sea being limited to occasional glimpses only.
- 1277 The effect of the introduction of AyM OWF to these views is **minor effect** (Non-significant).

## Effects on landscape character

## LCA C4 - Limestone Farmlands (Abergele to Denbigh Coastal/ Vale Hills)

1278 The effects on this LCA are assessed in Section 785.



## LCT 2 – Hill slopes of the Clwydian Hills and Dee Valley AONB (Denbighshire and Flintshire)

1279 This is an extensive LCT covering numerous LCAs/ landscape units across the AONB. Only those units that are considered to have a relationship to the wider seascape are considered relevant to the SLVIA, which includes two units in the northern part of the AONB. These are described as the Moel Haraddug and the Graig Fawr and Gop Hill landscape units respectively.

- 1280 The Hill Slopes LCT includes steep rising landform, escarpments below the uplands and lower hills of the AONB. The land cover and settlement characteristics are strongly rural and where development is minor or absent perceptions of tranquillity, remoteness and wildness can be particularly strong.
- 1281 The LCT areas all form prominent scenic backdrops to adjacent settled lower areas of the north-east Wales coastal plain, Vale of Clwyd, Deeside, Vale of Llangollen and Welsh Maelor and as such provide a strong sense of place.
- 1282 Geomorphology and landform have brought about some notable natural and wild areas. For example outcropping rock, native woodland, and scrub and grassland mosaics of the limestone escarpments above Prestatyn, Dyserth, Bryn Alyn and the Eglwyseg valley.
- 1283 Irregular field patterns and woodland edges, scattered farms along winding narrow lanes and tracks occupy more gentle hillslopes, shallow cwms and side valleys of the area. Some large areas of forestry lie within this area.
- 1284 Reservoirs are found in some of the shallower eastern facing valleys.
- 1285 Scattered farming and worker cottages associated with historical mining and processing industries lie within this area, with occasional villages at lower elevations. Older settlements are distinctive displaying use of stone, vernacular, rural traditions and a strong integration with the landscape.



- 1286 The Moel Haraddug landscape unit rises up steeply to the east of the small town of Dyserth. Its summit reaches a height of 265m AOD and the north to south running ridge above small crags is host to a communications mast. The lower hill slopes are wooded with the steep slopes having a gorse scrub and rough grassland landcover with the east facing slope including the site of a historic fort, Moel Haraddug. The upland area of the landscape unit is Open Access Land and to the north, beyond the boundary of the landscape unit the hillside has been substantially quarried in the past. The shallower slopes to the south and east of the landscape unit contain farm buildings surrounded by improved, sloping fields with hedgerow boundaries that become more regular to the east. There are several PRoW connecting to the Offa's Dyke LDR which runs just to the east. The vantage point provided by the summit has views over the surrounding landscape which include the Vale of Clwyd and Snowdonia beyond as well as onshore wind farms on high ground. The developed coastline and seascape to the north-west also have a contextual influence on parts of this landscape unit.
- 1287 This landscape unit is not located within an area identified as Undisturbed in the Tranquillity Classification (2009).
- 1288 Graig Fawr and Gop Hill landscape unit is an undulating area of upland with numerous, more pronounced, small hills many of which have steep scarp slopes to the west, in particular where they meet the more dramatic uplift around the western edge of the range as at Graig Fawr. The hills are generally open although the wooded Gop Hill is an exception to this. Other wooded areas tend to swathe the steeper land with some further small plantations and areas around larger properties.

- The predominant land use is agricultural with moderately sized fields subdivided by hedgerows, although some have been enlarged and field boundaries have been removed to the east. Historic use of the hills is obvious from the numerous mapped cultural heritage features. The landscape is relatively settled and served by numerous minor roads linking villages and farms. There are several transmission masts just to the north of the landscape unit and these as well as the views over the developed coastline and seascape to the north-west have a contextual influence on parts of this landscape unit. Views over the surrounding area also include the Vale of Clwyd to the more distant mountains of Snowdonia and several onshore wind farms to the south-west on higher ground.
- 1290 This landscape unit is not located within an area identified as Undisturbed in the Tranquillity Classification (2009).
- 1291 Viewpoints 24: Graig Fawr and Viewpoint 26: Bryn llwryn are located within this landscape unit (see Annex 10.6).
- 1292 Value of the landscape character: High. The LCT is located within the Clwydian Range and Dee Valley AONB.
- 1293 **Susceptibility to change: Medium.** The LCT is set back from the coast and this rural landscape has strong inherent characteristics of undulating farmland with numerous winding roads and visibility generally contained by hedgerow trees, woodland and landform.
- 1294 The small but prominent hills provide vantage points over the wider landscape, and some include views out to Irish Sea where OWF are seen as part of the seascape over the developed coastline. The proposed AyM OWF will add to this part of the wider context.
- 1295 Susceptibility is moderated by the distance to the AyM array area ranging from 23—26.5 km, the existing development influences on the coast and the lack of visual association with the seascape to the northwest from much of the rural areas of the landscape units.
- 1296 **Sensitivity to change Medium-high** taking account of the assessed high value of the landscape and the medium susceptibility to the proposed change to it.



- 1297 The AyM OWF will not directly alter the pattern or features of any of the strong, inherent characteristics of this landscape unit. Any alterations to its character are as part of changes to views as part of a wide context, which contains many influences.
- 1298 Figure 16c (Annex 10.5) illustrates the blade tip ZTV within these landscape units. This shows theoretical visibility of parts of 29-34 turbines across areas of the landscape where the high ground has slopes facing to the north and west or from the summits of the small hills; this marks a reduction from 48 WTGs visible at the PEIR stage in response to stakeholder feedback. However, actual visibility is much reduced from theoretical visibility across inland, low-lying parts of the unit where extensive hedgerows, trees and woodland blocks are layered in views across the landscape and generally prevent long distance views from it. In areas of settlement, buildings have an additional screening effect.
- 1299 Where views are available out to sea, they are strongly characterised by the surrounding landscape context which also includes development and the operational OWFs out in the Irish Sea.
- 1300 Viewpoints 24, 26 and 54 are located within this landscape unit and viewpoint 24 illustrates the baseline character of views and the visibility of the AyM OWF (MDS A) from there. Viewpoints 26 and 54 includes wireline views that indicate the relationship with the surrounding features and the AyM OWF (See Annex 10.6).
- 1301 The WTGs of the AyM OWF are seen on the skyline due to their greater distance. They will be seen as a large-scale addition to the existing operational wind farm seascape viewed from the elevated parts of the landscape units. However, viewed at this greater distance the WTG size is not markedly different to the closer range Rhyl Flats WTGs although their size is notably larger than the distant GyM WTGs.



- 1302 The AyM WTGs will fill the gap between the Rhyl Flats OWF and the GyM OWF as well as appearing behind parts of their horizontal field of view. However, they do not extend the overall horizontal field of view which also contains North Hoyle and Burbo Bank and its Extension OWFs which are seen across the seascape beyond a foreground of coastal development. The operational OWFs have a variety of scales and patterns and their overlapping horizontal fields of view creates some visual discord with some extending above the skyline and others seen predominately below the skyline with their bases visible within the seascape from these elevated locations.
- 1303 The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCT is generally likely to be lower than is identified for a viewpoint.
- 1304 Magnitude of change during construction, operation and decommissioning (MDSA): Negligible during early stages of construction and latter stages of decommissioning, otherwise Low.

- 1305 Construction, Decommissioning: Minor effect (Non-significant) during early stages of construction and latter stages of decommissioning otherwise Moderate-Minor effect (Non-significant), adverse, short-term temporary.
- 1306 Operation (MDS A): Moderate-Minor effect (Non-significant), adverse, long term, reversible.

# LCT 5 – Rolling Lowland of the Clwydian Hills and Dee Valley AONB (Denbighshire and Flintshire)

1307 This is an extensive LCT covering numerous LCAs/ landscape units across the AONB. Only those units that are considered to have a relationship to the wider seascape are considered relevant to the SLVIA, which includes two units in the northern part of the AONB. These are described as the Gronant Hillside and the Trelawynd Plateau landscape units respectively.



- 1308 The LCT of the rolling lowlands lies to north of the area and includes the farmed wooded slopes of Gronant Hillside, the farmed Trelawnyd plateau and wooded valley west of Cefn Du.
- 1309 These are areas of farmland with mosaic of field patterns and woodland along steeper ground and streams, scattered rural settlement, narrow lanes and one small village. Limestone in building and occasional field boundaries is characteristic of the Trelawnyd plateau.
- 1310 The Trelawnyd plateau feels relatively remote in spite of the close proximity to the large villages and towns of the coastal plain.
- 1311 There is a strong visual connection with adjacent areas Gronant hillside connection with the coastal plain, seascape and Prestatyn Hillside; and Trelawnyd plateau connection with the enclosing limestone escarpment and Gop Hill.
- 1312 Tranquillity is locally affected where the A5151 crosses open sections of the Trelawnyd plateau. Noise from the A55 also extends for some distance into this area.
- 1313 This LCT is not located within an area identified as Undisturbed in the Tranquillity Classification (2009).
- 1314 This area contributes to the tranquillity and freedom of views experienced from the adjacent hill slopes and uplands.
- 1315 Value of the landscape character: High. The LCT is located within the Clwydian Range and Dee Valley AONB.
- 1316 **Susceptibility to change: Medium.** The LCT is set back from the coast and this rural landscape has strong inherent characteristics of undulating farmland with some winding roads and visibility generally contained by hedgerow trees, woodland and landform.
- 1317 The hills in the north and west of the Gronant Hillside and the Telawynd Plateau respectively provide vantage points over the wider landscape and some include views out to Irish Sea where OWF are seen as part of the seascape over the developed coastline. The proposed AyM OWF will add to this part of the wider context.



- 1318 Susceptibility is moderated by the distance to the AyM array area ranging from 24-28 km, the existing development influences on the coast and the lack of visual association with the seascape to the north-west from much of the rural areas of the landscape units.
- 1319 **Sensitivity to change Medium-high** taking account of the assessed high value of the landscape and the medium susceptibility to the proposed change to it.

- 1320 The AyM OWF will not directly alter the pattern or features of any of the strong, inherent characteristics of this landscape unit. Any alterations to its character are as part of changes to views as part of a wide context, which contains many influences.
- 1321 Figure 16c (Annex 10.5) illustrates the blade tip ZTV within these landscape units. This shows theoretical visibility of parts of 29-34 turbines across areas of the landscape where the areas of high ground have slopes facing to the north and west or from the summits of the small hills. However, actual visibility is much reduced from theoretical visibility across inland, low-lying parts of the unit where extensive hedgerows, trees and woodland blocks are layered in views across the landscape and generally prevent long distance views from it. In areas of settlement, buildings have an additional screening effect.
- 1322 Where views are available out to sea, they are strongly characterised by the surrounding landscape context which also includes development and the operational OWFs out in the Irish Sea.
- 1323 Viewpoint 26 (Annex 10.6) is located on the edge of the Gronant Hillside landscape unit and includes wireline views that indicate the relationship with the surrounding features and the AyM OWF.
- 1324 The WTGs of the AyM OWF are seen on the sea skyline due to their greater distance. They will be seen as a large-scale addition to the existing operational wind farm seascape viewed from the elevated parts of the landscape units. However, viewed at this greater distance the WTG size is not markedly different to the closer range Rhyl Flats WTGs although their size is notably larger than the distant GyM WTGs.



- 1325 The AyM WTGs will fill the gap between the Rhyl Flats OWF and the GyM OWF as well as appearing behind parts of their horizontal field of view. However, they do not extend the overall horizontal field of view which also contains North Hoyle and Burbo Bank and its Extension OWFs which are seen across the seascape beyond a foreground of coastal development. The operational OWFs have a variety of scales and patterns and their overlapping horizontal fields of view creates some visual discord with some extending above the skyline and others seen predominately below the skyline with their bases visible within the seascape from these elevated locations.
- 1326 The magnitude of change on landscape character arising from visibility in a single direction as part of the wider context of the LCT is generally likely to be lower than is identified for a viewpoint.
- 1327 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible to no change during early stages of construction and latter stages of decommissioning, otherwise Low

- 1328 Construction, Decommissioning: Minor effect (Non-significant) adverse, short-term temporary during early stages of construction and latter stages of decommissioning, otherwise Moderate-Minor (Non-significant), adverse, short-term temporary.
- 1329 Operation (MDS A): Moderate-Minor (Non-significant), adverse, long term, reversible.

## Effects on seascape character

1330 The effects on SCA C – Vale of Clwyd have been assessed in paragraph 785.

## Effects on the Special Qualities of the Clwydian Range and Dee Valley AONB

1331 The landscape character assessment has identified that there are no areas within the Clwydian Range and Dee Valley AONB where significant effects on landscape character are likely to arise.



- 1332 The Special Qualities of the AONB that have been assessed in the simple assessment in Volume 4, Annex 10.3 as having the potential to be significantly affected and therefore requiring detailed assessment are as listed below and assessed in Table 13.
  - Landscape Character and Quality Tranquillity; and
  - Landscape Character and Quality Remoteness and Wildness (Wilderness term used in Part Two).



Table 13: Effects on the Clwydian Range and Dee Valley AONB Special Qualities During Construction/ Decommissioning and Operation.

SPECIAL QUALITY AND SOURCE	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
Landscape Character and Quality – Tranquillity. (Clwydian Range and Dee Valley Area of Outstanding	P15 – Relative tranquillity is recognised as a Special Quality of the AONB. It provides a resource and a benefit that is greatly valued in the context of the busy population centres to the North and East.	Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise	Construction/ Decommissioning  Minor to Moderate-Minor effect (Non-significant) adverse, short- term temporary.
Natural Beauty Management Plan 2014 – 2019	P20, Table 1 - Tranquillity is associated with an atmosphere of calm and stillness; peace and quiet; and with dark night skies.	The majority of the AONB lies beyond the Study Area boundary.	Operation (MDS A)  Moderate-Minor effect (Non- significant), adverse, long term,
Part One STRATEGY Special Qualities of the AONB describes and categorises	p23 - There has been an over-all loss of tranquillity across the AONB with a reduction of undisturbed areas identified on the Wales Tranquil Areas Maps by around 10%. This has	The AyM OWF will not introduce any elements that could be considered to detract from tranquillity within the AONB itself.	reversible.
he Special Qualities of the AONB in Table 1.  Part Two STATE of the	been primarily due to an increase in intrusion from major roads and disturbance from light and noise pollution from Wrexham and Rhosllanerchrugog has intensified.	Impacts on tranquillity by the AyM OWF can only occur through its visibility as part of the wide context of the AONB which contains many	
AONB REPORT)	There is an increasing need to consider renewable forms of energy production which will bring an increase in applications for wind, solar and hydro development proposals both within and outside the AONB.	influences.  Only the northerly parts of the AONB (north of the A55) are likely to be influenced by visibility of AyM OWF at a minimum range of approximately	
	P63 - Intrusion.  A variety of factors can have an impact on the Tranquillity, Remoteness and Wilderness of the AONB. Traffic noise, light pollution, the impact of quarrying and utility installations can all have an effect on the tranquillity of the AONB and people's enjoyment of the landscape.	23.5 km.  Within this northerly area actual visual association with the views to the north-west over the Irish Sea are restricted to relatively limited areas around the north and west facing edges of the AONB and where small hills within it provide vantage	
	The principal roads and communication routes in the AONB primarily cross the Clwydian Range in an east – west direction, and run in an east – west direction along the Dee Valley and Morwynion Valley. The most significant road is the dualled A55 EuroRoute which passes through the narrowest part of the AONB at Rhuallt.  The limestone and slate geology of the Clwydian Range and Dee Valley has been exploited for its mineral wealth	points.  Figure 16c (Annex 10.5) illustrates the blade tip ZTV within the LCTs/ landscape units that lie within the AONB. This shows theoretical visibility of parts of 29-34 turbines across areas of the landscape where the areas of high ground have slopes facing to the north and west or from the summits of the small hills. However, actual visibility is much	
	for centuries. This has left its mark on the landscape; many abandoned or worked out mineral sites have been	reduced from theoretical visibility across inland, low-lying parts of the unit where extensive	



SPECIAL QUALITY AND SOURCE	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	assimilated into the landscape over time but others still scar the area. There are two active slate quarries in the AONB.  Overhead power transmission lines and communications masts are the most prominent utility infrastructure within	hedgerows, trees and woodland blocks are layered in views across the landscape and generally prevent long distance views from it. In areas of settlement, buildings have an additional screening effect.	
	the AONB. The largest power lines cross the AONB at its narrowest point near Rhuallt and travel through the AONB down the Morwynion Valley.	Where views are available out to sea, they are strongly characterised by the surrounding landscape context which also includes	
	Given the topography of the AONB it is an attractive location for communications infrastructure. The most prominent installations are the masts at Moel y Parc and Cyrn y Brain, but there are also prominent masts at Gwaenysgor, Moel Gelli, Craig-y-dduallt, Coed Mawr and Barber's Hill.	development and the operational OWFs out in the Irish Sea i.e. in the immediate context of other elements that are considered to detract from tranquillity, some of which are at much closer proximity to the AONB. Viewpoints 24, 26 and 54 (Annex 10.6) are	
	A relatively new feature of regional energy infrastructure is the development of major onshore wind farms and OWF. Land Management Practices are continually changing,	located in areas of high ground around the north-western edge of the AONB and represent the visibility of the AyM OWF in the wider context.  The WTGs of the AyM OWF are seen on the sea	
	adapting to government policy, climate change and agricultural improvements. These changes in management have the ability to impact on the landscape of the AONB.	skyline due to their greater distance. They will be seen as a large-scale addition to the existing operational wind farm seascape viewed from the elevated parts of the landscape units.	
	The AONB has evolved over time, shaped by geological forces, climate and human activity, and this evolution is ongoing. Climate change is expected to have a major influence in the coming decades, and we need to manage this process, taking action to adapt to the	However, viewed at this greater distance the WTG size is not markedly different to the closer range Rhyl Flats WTGs although their size is notably larger than the distant GyM WTGs.	
	impacts and make the best of the opportunities.  The Tranquillity Classification (2009) on Figure 10b shows that there are very limited areas of the AONB that are classified as Undisturbed to the north of the A541.	The AyM WTGs will fill the gap between the Rhyl Flats OWF and the GyM OWF as well as appearing behind parts of their horizontal field of view. However, they do not extend the overall horizontal field of view which also contains North	
	Upland parts to the south of the A541, beyond the buffers associated with the settlements, infrastructure and telecommunications masts, are identified as Undisturbed.  Value of the Special Quality – High	Hoyle and Burbo Bank and its Extension OWFs which are seen across the seascape beyond a foreground of coastal development. The operational OWFs have a variety of scales and	



SPECIAL QUALITY AND SOURCE	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	Susceptibility to change - Medium  The majority of the AONB lies beyond the Study Area boundary.  Impacts on tranquillity by the AyM OWF can only occur through its visibility as part of the wider context of the AONB.  Only the northerly parts of the AONB (north of the A55) are likely to be influenced by visibility of AyM OWF at a minimum range of approximately 23.5 km.  Within this northerly area actual visual association with the views to the north-west over the Irish Sea are restricted to relatively limited areas around the north and west facing edges of the AONB and where small hills within it provide vantage points.  Susceptibility is reduced by the extent of development, including OWF which form part of the characterising context from these locations.  Sensitivity to change: Medium-high - taking account of the assessed high value of the Special Quality and the medium susceptibility to the proposed change to it.	patterns and their overlapping horizontal fields of view creates some visual discord with some extending above the skyline and others seen predominately below the skyline with their bases visible within the seascape from these elevated locations.  The magnitude of change on a Special Quality arising from visibility in a single direction as part of the wider context of the AONB is generally likely to be lower than is identified for a viewpoint.	
Landscape Character and Quality – Remoteness and Wildness (Wilderness term used in Part Two).  (Clwydian Range and Dee Valley Area of Outstanding Natural Beauty Management Plan 2014 – 2019  Part One STRATEGY Special Qualities of the AONB describes and categorises	P20, Table 1 - Remoteness and wildness is associated with a feeling of trepidation and sometimes even danger. The sublime.  Space and freedom are related to access to the landscape and the uninterrupted and extensive views from the high places within it.  P63 - Intrusion.  A variety of factors can have an impact on the Tranquillity, Remoteness and Wilderness of the AONB. Traffic noise, light pollution, the impact of quarrying and utility installations can all have an effect on the tranquillity of the AONB and people's enjoyment of the landscape.	Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during early stages of construction and latter stages of decommissioning, otherwise Low The majority of the AONB lies beyond the Study Area boundary. The AyM OWF will not introduce any elements that could be considered to detract from remoteness and wildness within the AONB itself. Impacts on remoteness and wildness by the AyM OWF can only occur through its visibility as part of	Minor to Moderate-Minor effect (Non-significant) adverse, short- term temporary.  Operation (MDS A)  Moderate-Minor effect (Non- significant), adverse, long term, reversible.



SPECIAL QUALITY AND SOURCE	BASELINE DESCRIPTION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
the Special Qualities of the AONB in Table 1.  Part Two STATE of the AONB REPORT)	Whilst the AONB Management Plan documentation uses definitive terminology such as 'wildness' and 'wilderness' the Applicant does not consider that areas within the northern parts of the Clwydian Range and Dee Valley, which are relevant to this SLVIA should be considered to be perceived as wild or as wilderness in their purest sense. It is, however, agreed that there is a sense of relative wildness and relative wilderness in some areas. This is due to a lack of intrusion by development in some areas, however the relative ease of accessibility and evidence of some human intervention through land use practices are evident across the AONB.  Preliminary work to map wildness in Wales undertaken by the University of Leeds Wildland Research Institute (2014) entitled Wildness Study In Wales, uses GIS and modelling of wildness based on perception studies carried out in Scotland. Whilst it was advocated that further, more specific Welsh research should be undertaken to inform wildness mapping for Wales it does provide some basis for an understanding of the relative wildness of the Clwydian Range and Dee Valley AONB compared with other parts of Wales (and Scotland) based on a number of factors that are generally agreed to contribute to the presence (or otherwise) of wildness.  This shows that in general the AONB has average or lower than average values of relative wildness. This is with the exception of small areas along the western slopes to the south of the A55 and in a large area to the south beyond the extents of the Study Area.  Value of the Special Quality – High  Susceptibility to change - Medium  The majority of the AONB lies beyond the Study Area boundary.	the wide context of the AONB which contains many influences.  Only the northerly parts of the AONB (north of the A55) are likely to be influenced by visibility of AyM OWF at a minimum range of approximately 23.5 km.  Within this northerly area actual visual association with the views to the north-west over the Irish Sea are restricted to relatively limited areas around the north and west facing edges of the AONB and where small hills within it provide vantage points.  Figure 16c (Annex 10.5) illustrates the blade tip ZTV within the LCTs/ landscape units that lie within the AONB. This shows theoretical visibility of parts of 29-34 turbines across areas of the landscape where the areas of high ground have slopes facing to the north and west or from the summits of the small hills. However, actual visibility is much reduced from theoretical visibility across inland, low-lying parts of the unit where extensive hedgerows, trees and woodland blocks are layered in views across the landscape and generally prevent long distance views from it. In areas of settlement, buildings have an additional screening effect.  Where views are available out to sea, they are strongly characterised by the surrounding landscape context which also includes development and the operational OWFs out in the Irish Sea i.e. in the immediate context of other elements that are considered to detract from tranquillity, some of which are at much closer proximity to the AONB.	



SPECIAL QUALITY AND BASELINE DESCRIPTION AND SENSITIVITY SOURCE	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
Impacts on remoteness and wildness by the AyM OWF car only occur through its visibility as part of the wider context of the AONB.  Only the northerly parts of the AONB (north of the A55) are likely to be influenced by visibility of AyM OWF at a minimum range of approximately 23.5 km.  Within this northerly area actual visual association with the views to the north-west over the Irish Sea are restricted to relatively limited areas around the north and west facing edges of the AONB and where small hills within it provide vantage points.  Susceptibility is reduced by the reduced by the extent of development, including OWF which form part of the characterising context from these locations.  Sensitivity to change: Medium-high - taking account of the assessed high value of the Special Quality and the medium susceptibility to the proposed change to it.	in areas of high ground around the north-western edge of the AONB and represent the visibility of	



#### 10.11.7 Flintshire

#### Effects on visual resource

- 1333 Effects on the Flintshire visual resource are considered primarily in relation to representative viewpoints. Thereafter, where visual receptors require further assessment the effects on the views of people in settlements and using the Wales Coast Path are also assessed.
- 1334 The assessments of the representative viewpoints then inform the assessments of the effects on landscape character, seascape character and the effects on the Special Qualities of the Clwydian Range and Dee Valley AONB.
- 1335 Design refinements have reduced the extent of the horizontal field of view affected by the AyM OWF. by removing the westerly area of the AyM array area and the WTGs therein. The number of WTGs visible within the remaining AyM array area has also been reduced in all views from seascape, landscape and visual receptor
- 1336 Effects on the representative viewpoints are assessed in Table 14 and thereafter are used to inform the assessments of the effects on visual and seascape receptors.



Table 14: Effect on Flintshire Representative Viewpoints During Construction/ Decommissioning and Operation.

oint of Ayr is on the coast of SCA D – Clwydian Hills with views over SCA E – Western Deeside with SCA F – North Wales Open	Construction/ Decommissioning: Negligible to	Construction/ Decommissioning
xtension stretches across the widest field of view at a range of 2.2 km. Rhyl Flats, GyM and Burbo Bank OWFs are also seen across the sea skyline at distances of 19.5 km, 14.3 km and 16.1 m respectively.	Activity within array area at 24.6 km and vessel movements intensified in the vicinity during construction/ decommissioning work which is largely below sea surface or of limited extent-negligible.  Visibility of WTG structures as they are constructed/commissioned or dismantled, which will occur over a period of less than 18 months in each instance – Low.  Operation (MDS A): Low  Movement and structures of 34 WTGs visible as prominent elements on the horizon at a range of 27.2 km.  2 OSPs just visible amongst these.  WTGs visible across approximately 18 degrees of the field of view largely in the vicinity of but also extending the GyM OWF by spanning part of the existing gap between this and the Rhyl Flats OWF and as part of the background to North Hoyle OWF.  The more distant WTGs of the AyM array area WTGs appear similarly spaced to the closer range GyM WTGs.  The AyM WTGs appear similar in scale to those of	Minor effect (Non-significant), adverse, short-term temporary during early stages of construction phase and latter stages of decommissioning phase.  Moderate-Minor effect (Non-significant) adverse, short-term temporary during latter stages o construction phase and early stages of decommissioning.  Operation (MDS A)  Moderate-Minor effect (Non-significant), adverse, long term, reversible.  Likelihood of effect  Requires Very Good or Excellent visibility.  Visibility frequency at this range: 62%.  Occurs most frequently in Summer.
with the closest being North Hoyle at 9.3 km. Burbo Bank Extension stretches across the widest field of view at a range of 12.2 km. Rhyl Flats, GyM and Burbo Bank OWFs are also seen across the sea skyline at distances of 19.5 km, 14.3 km and 16.1 km respectively. Whilst there are apparent gaps between some of the OWFs, operational OWF development is seen spanning across approximately 124 degrees of the wide field of view. The gap between North Hoyle and Burbo Bank Extension equates to 29 degrees of this.	OWF. The more distant WTGs of the AyM array area WTGs appear similarly spaced to the closer range GyM WTGs. The AyM WTGs appear similar in scale to those of the nearby North Hoyle OWF although they are further away. The rotor diameters of AyM appear larger. The AyM WTGs appear smaller in scale	Occurs most frequently in
hur i e vii ii lu n i re cirka D'vii x 2 ic n V pripe	RoW from Talacre.  The viewpoint is representative of views from the beach, WCP and other paths.  The not representative of views from the settlement of Talacre.  The aviews from the settlement are limited.  The was out to sea occur across over 200 degrees of the field of the word of the west by sand ones and to the east/ north-east by the eastern coastline of the Dee Estuary. The western coastline of the land at Hoylake and Wallsey is most apparent to the east. To the north-east the eadland at Formby is visible. Beyond these locations the possibilities is less distinct but relatively low-lying and with apparent development in the form of large-scale buildings and all cranes.  WFs are a feature of the seascape in the views to the north the closest being North Hoyle at 9.3 km. Burbo Bank tension stretches across the widest field of view at a range of the sea skyline at distances of 19.5 km, 14.3 km and 16.1 in respectively.  The hilst there are apparent gaps between some of the OWFs, perational OWF development is seen spanning across approximately 124 degrees of the wide field of view. The gap between North Hoyle and Burbo Bank Extension equates to 29 and the sea seascape in the views to the ower and the ower	negligible.  Visibility of WTG structures as they are constructed/commissioned or dismantled, which will occur over a period of less than 18 months in each instance – Low.  Operation (MDS A): Low  Movement and structures of 34 WTGs visible as prominent elements on the horizon at a range of 27.2 km.  2 OSPs just visible amongst these.  WTGs visible amongst these and the field of view and a range of the field of view are



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	The long sweeping, dune backed beach is a key feature of the coastline here. The lighthouse is also a prominent feature and	The location of all OWFs on the skyline in this view assists with this perceived integration.	
	can be reached at low tide.	The GyM WTGs are both smaller in scale than the	
	The beach and seascape beyond is seen in a wider context of a settled coastline.	AyM WTGs and are further away from this viewpoint than the Rhyl Flats and North Hoyle	
	Value of view: Medium	OWF so the scale comparison is greater.	
	Not located within a National or Local landscape designation.  The combined horizontal field of view of OWF		
	LANDMAP visual and sensory evaluation – high	remains as it is currently with the key difference being that part of the existing gap	
	Likely to be locally valued as the outlook from this section of the coast.	(approximately 10 degrees of the field of view) is infilled by AyM WTGs and the vertical scale of the	
	Susceptibility to change: Medium-high	OWF is slightly larger than Rhyl Flats/ North Hoyle	
	The view is representative of receptors visiting and walking along this coastal edge.	OWFs but markedly larger than GyM. The greater distance of the AyM array area will however	
	Views out to sea are part of the visual setting for these transient receptors.  often ensure that these turbines are less visible than those at closer range.		
	This viewpoint is located in an area identified as Undisturbed in the Tranquillity Classification (2009).	expanse of water and the potential to see the	
	Susceptibility is moderated by distance to AyM array area and context and current outlook towards the AyM array area contains many development features including operational OWF.	expanse of seascape that is characterised by existing OWFs and influenced by coastal development are factors that assist in increasing the capacity of this view to accommodate AyM.	
	Sensitivity: Medium-high - taking account of the assessed	Mitigation measures	
	medium value of the viewpoint and the medium-high susceptibility to the proposed change to it.	As a result of stakeholder feedback, the AyM array area has been reduced. This has reduced the WTG numbers seen within this view. Whilst this has resulted in a reduction in impact, it has not been sufficient to alter the level of magnitude of change assessed in the PEIR.	



## Wales Coast Path Section Q - Gronant Dunes/Point of Ayr

## Baseline description and sensitivity

- 1337 This 6.5 km section runs from the eastern edge of Prestatyn to the Point of Ayr. From the east end of Prestatyn's promenade the path follows the shoreline behind Barkby Beach, runs behind dunes within Gronant Dunes Nature Reserve and gradually curves inland to the north-western corner of Presthaven Sands Holiday Park. From there, the path curves around the coastline on the beach and in front of dunes to end at the Point of Ayr.
- 1338 This section of the path is backed by open farmland and several caravan parks. It is relatively natural, with an urban influence derived from nearby development. The coastline is influenced by the Dee Estuary and is largely flat, open and exposed. This section hugs the coastline and has a northerly aspect across the Irish Sea for much of its length. This contains views of several operational OWFs. The extent of this alters depending on the direction of travel with either the Rhyl Flats or North Kyle OWFs being most prominent and the Gwynt-Y-Mor and/ or Burbo Bank and its extension seen beyond these.
- 1339 **Value of views: Medium.** The route does not lie within a National or Local landscape planning designation. The views are valued locally as part of the setting of the WCP.
- 1340 **Susceptibility to change: Medium-high.** People using LDRs tend to do so with the purpose of both exercise and appreciation of the views/ environment through which they pass. They are transient, so do not tend to have the same view for long periods.
- 1341 The easternmost kilometre of the route is located within an area that has been classified as Undisturbed in the Tranquillity Mapping 2009.
- 1342 Parts of the route are separated from the sea by high sand dunes and swathes of rough grassland so have no relationship with it. This section of the route is less developed than the sections to the west or east (south), however it has some development influences through views of nearby tourism development inland and from locations running close to the beach towards operational OWFs.



- 1343 Susceptibility is moderated by the distance of 22-26 km from the AyM array area and the influence of some development as part of the wider context including OWFs.
- 1344 **Sensitivity to change: Medium-high** taking account of the assessed medium value of the views and the medium-high susceptibility to the proposed change to them.

## Magnitude of change

- 1345 Figure 19 (Annex 10.4) illustrates the blade tip ZTV along this section of the route. This shows 29-34 blade tips along the entire section. However, the screening influence of the dunes landscape is not taken into account and would reduce or prohibit actual visibility of the AyM OWF along stretches of approximately one quarter the route.
- 1346 Views towards the AyM OWF are represented by one viewpoint at Point of Ayr near the lighthouse, Viewpoint 27. Viewpoint 25 is at Prestatyn not far from the closer section of the route so provide an indication of the visibility from the section of the route where it passes north of the golf course (see Annex 10.6). These show that the AyM OWF would be seen in the immediate context of the operational OWFs.
- 1347 The changes in views as a result of the AyM OWF would predominantly occur when travelling west along this section of the route.
- 1348 Magnitude of change during construction, operation and decommissioning (MDS A): Negligible during the early stages of construction and latter stages of decommissioning otherwise Low.

## Significance of effect

- 1349 Construction, Decommissioning: Minor to Moderate-Minor effect (*Non-significant*), adverse, short-term temporary.
- 1350 Operation (MDS A): Moderate-Minor effect (Non-significant), adverse, long term, reversible.



#### NCR 5

- 1351 Figure 18.1 (Annex 10.5) shows the route of NCR 5 through Flintshire. Views of AyM OWF from this inland section of the route are theoretically limited as well as being reduced by intervening vegetation. Any views of AyM OWF are beyond the operational OWFs.
- 1352 The effect of the introduction of AyM OWF to the views from NCR 5 is **Minor effect (Non-significant)**.

## A55, North Wales Expressway

- 1353 The A55, North Wales Expressway runs inland through Flintshire with view sea being limited to occasional glimpses only.
- 1354 The effect of the introduction of AyM OWF to these views is **Minor effect** (Non-significant).

## Effects on seascape character

1355 There will be no significant effects on seascape character within Flintshire as set out in the simple assessment (Volume 4, Annex 10.3).

# 10.12 Night-time visual effects

#### 10.12.1 Introduction

- 1356 This section provides an assessment of the visual effects arising from the visible lighting requirements (aviation and marine navigational) of the offshore elements of AyM. PINS agreed at the scoping stage that night-time impacts due to lighting of infrastructure within the array area on receptors where they are located east of Conwy or in England can be scoped out of the assessment as significant effects are unlikely to occur.
- 1357 A description of the aviation lighting requirements during construction, operation and decommissioning is contained in Volume 2, Chapter 13: Aviation and Radar (application ref: 6.2.13) and a description of lighting required as an aid to navigation is contained in Volume 2, Chapter 9: Shipping and Navigation (application ref: 6.2.9).



- 1358 During construction and decommissioning the requirement for the lighting of structures and tall cranes within the array area will vary over the duration of those phases as OSP and WTG structures emerge above sea surface and where they reach defined height levels in relation to aviation lighting requirements. The Civil Aviation Authority (CAA) recommends that all obstacles that are over 60 metres above sea level should be fitted with one medium intensity steady red light positioned as close as possible to the top of the obstacle.
- 1359 Apart from the cranes which are unlikely to be used in the hours of darkness the medium intensity lights will be restricted to the WTGs, OSPs and met mast as they are erected over a period of approximately 9 months. The mitigation included for the operational lighting, which reduces the intensity of the aviation lights to 200 candela in certain meteorological conditions, is activated by sensors. However, these sensors will not be in place until the AyM OWF is commissioned for operation.
- 1360 Medium intensity steady red lights may be temporarily required on structures that are not to be lit during the operational phase, however where this is the case these structures would be at a similar or greater distance from SLV receptors and potentially less widespread across the array area than would be the case during operation of AyM OWF. The lighting of the WTGs will transition to the operational aviation lighting at the end of the construction period.
- 1361 Lower-level marine lighting may be temporarily required on structures that are not to be lit during the operational phase. There is also likely to be work lights within the array area during construction and decommissioning. However, where this is the case, the lit structures would be at a greater distance from SLV receptors and potentially less widespread across the array area than would be the case during operation of AyM OWF.



- The lighting within and around the AyM Array Area would, in some cases, result in higher magnitudes of change in the views compared with those that are assessed for the mitigated operational stage and such effects are likely to be more widespread that for the operational stage. However, such impacts would only arise over a short duration (approximately 9 months) and in the context of existing OWF aviation lights of 2000 candela, the lights of the Douglas Oil and Gas Platform Complex, coastal lighting and the transient shipping present in the seascape. It is considered that, in this instance, the resultant effects on the SLV resource would not result in any further significant night-time effects to those assessed and identified for the operational phase. Such night-time effects would be short term and temporary during construction.
- 1363 The lighting requirements and MDS A and MDS B operational assumptions for SLVIA are set out in Table 3 and their assumed positions are shown on Figures 2a and 2b (Annex 10.5). Other lighting required on the offshore elements of AyM is either of such a low intensity that it would not be visible from the coast or only on periodically for a short duration such as when a helicopter is approaching to land on an OSP. This other lighting is not considered in the SLVIA.
- 1364 Civil Aviation Authority (CAA) guidance requires that 'en-route obstacles' at or above 150m above ground level are lit with visible lighting to assist their detection by aircraft. As such, there is potential that parts of the offshore elements of AyM may be visible at night. The effect of the offshore elements of AyM at night would result primarily from visible, medium intensity, flashing (maximum 2,000 candela) red coloured aviation light fittings located on the nacelles of all peripheral WTGs and at the top of the Met Mast.
- 1365 The Applicant proposes to introduce mitigation for the aviation lighting effects. It is proposed that a detection system will be mounted on certain peripheral AyM WTGs and these will detect when visibility is greater than 5 km. When this is the case the aviation lights will be dimmed to 10% of the 2000 candela maximum so that the intensity of the light emitted would be 200 candela.



- 1366 The visibility frequency data included in Annex 10.4 indicates that visibility is greater than 5 km for over 96% of the time. Visibility out at sea is likely to be more frequently less than 5 km than such land-based measurements suggest due to generally greater levels of moisture in the air over the sea, which tends to reduce visibility compared to the air directly over land. This data indicates that the aviation lights would infrequently be displayed at 2000 candela.
- 1367 Visibility at night out at sea is likely to be restricted to within 5 km by moisture levels, including fog. When this is the case the ability of the light to travel will be reduced substantially so that it will not be possible for the lights to be visible at 2000 candela from even the closest point on the coast to the AyM array area (10.5 km at Little Orme).
- 1368 The night-time visualisations have therefore been prepared to show how 200 candela aviation lights would appear from the coast.
- 1369 Marine navigation lights are also required significant peripheral structures. These are flashing yellow lights with a 5NM nominal range, mounted at the top of the foundations positioned on as shown on Figure 2a and 2b (Annex 10.5).
- 1370 The met mast also has a marine navigation flashing white light with a nominal range of 10NM, mounted at the top of the foundation.
- 1371 This visual assessment of night-time effects is supported by plan figures (Annex 10.5) as follows:
  - Figure 2a: Maximum Design Scenario A (332m to Blade Tip);
  - Figure 2b: Maximum Design Scenario B (282m to Blade Tip);
  - Figure 10a: Baseline Light Pollution;
  - Figure 11: Visual Receptors and Viewpoint Locations;
  - Figures 21a-c: Hub Height Aviation Lighting ZTV (MDS A); and
  - Figures 22a-c: Hub Height Aviation Lighting ZTV (MDS B).
- 1372 At this preliminary stage, the ZTVs illustrate the theoretical potential for direct line of sight from the hub height aviation lights. They do not consider the deterioration of light over distance or any potential reduction in intensity of the light below or above the light emitted at the highest intensity, which is required by the regulations to occur between 0 to +3° from the horizontal.



- 1373 Four night-time viewpoints (Annex 10.6) have been assessed to represent views of the MDS A and MDS B lighting from a variety of locations within the study area. The locations of these representative viewpoints were agreed with Stakeholders. These are:
  - Viewpoint 4: Moelfre;
  - Viewpoint 13: Great Orme near summit complex;
  - Viewpoint 22: Abergele Promenade; and
  - Viewpoint 60: Foel Lus
- 1374 As requested during consultation, a further illustrative night-time visualisation has been prepared for Viewpoint 61: Llandudno Promenade near Venue Cymru.
- 1375 The assessments of the night-time visual effects on the representative viewpoints is included in Table 15 and found *Moderate* (*significant*) night-time visual effects at VP 13: Great Orme near summit complex.
- 1376 The assessment of night-time effects has used these representative viewpoints to inform the assessment of night-time effects over the wider study area with particular reference to the effects on Snowdonia Dark Skies Reserve and within IoA AONB where particular reference is made to dark skies as part of the Special Qualities.

#### 10.12.2 Guidance

# Guidelines for Landscape and Visual Impact Assessment (GLVIA3)

GLVIA3 (page 103) provides the following guidance on the assessment of lighting effects: "For some types of development the visual effects of lighting may be an issue. In these cases it may be important to carry out night-time 'darkness' surveys of the existing conditions in order to assess the potential effects of lighting and these effects need to be taken into account in generating the 3D model of the scheme. Quantitative assessment of illumination levels, and incorporation into models relevant to visual effects assessment, will require input from lighting engineers, but the visual effects assessment will also need to include qualitative assessments of the effects of the predicted light levels on night-time visibility."



1378 GLVIA3 (page 60) also provides the following guidance with regards to mitigation of obtrusive light: 'lighting for safety or security purposes may be unavoidable and may give rise to significant adverse effects; in such cases, consideration should be given to different ways of minimising light pollution and reference should be made to appropriate guidance, such as that provided by the Institution of Lighting Professionals (ILP, 2011)'.

## Institute of Lighting Professionals Guidance

- 1379 Guidance produced by the Institute of Lighting Professionals (ILP) (2011) (GN01:2011) is useful in setting out some key terminology that is used in this visual assessment of turbine lighting:
  - △ Obtrusive Light, whether it keeps you awake through a bedroom window or impedes your view of the night sky, is a form of pollution, which may also be a nuisance in law and which can be substantially reduced without detriment to the lighting task.
  - Skyglow the brightening of the night sky;
  - ▲ Glare the uncomfortable brightness of a light source when viewed against a darker background; and
  - Light Intrusion the spilling of light beyond the boundary of the property or area being lit, are all forms of obtrusive light which may cause nuisance to others.
- 1380 Types of obtrusive light are identified in Figure 1 of the ILP (2011).
- 1381 Campaign for the Protection for Rural England (CPRE) also identifies these same broad terms as the three types of light pollution:
  - "Skyglow the pink or orange glow we see for miles around towns and cities, spreading deep into the countryside, caused by a scattering of artificial light by airborne dust and water droplets.
  - △ Glare the uncomfortable brightness of a light source.
  - Light intrusion light spilling beyond the boundary of the property on which a light is located, sometimes shining through windows and curtains."
- 1382 The following key guidance is noted:
  - "The most sensitive/critical zones for minimising sky glow are those between 90° and 100° (note that this equates to 0-10° above the horizontal).



- Keep glare to a minimum by ensuring that the main beam angle of all lights directed towards any potential observer is not more than 70°.
- In rural areas the use of full horizontal cut off luminaires installed at 0° uplift will, in addition to reducing sky glow, also help to minimise visual intrusion within the open landscape.
- ▲ Upward Light Ratio (ULR) of the Installation is the maximum permitted percentage of luminaire flux that goes directly into the sky. A ULR of 0 (zero) Candela (cd) is suggested for Dark Sky Parks."

#### NatureScot Guidance

- 1383 Although NatureScot guidance is a material consideration only to development projects in Scotland, it does represent current and developing thinking and is specifically relevant to the assessment of wind farms, therefore it has been included and referred to within this section. No such guidance has been prepared for Wales.
- 1384 NatureScot Guidance on WTG lighting is contained in para 174-177 in Visual Representation of Windfarms (NatureScot, 2017) as follows:
  - "Where an illustration of lighting is required, a basic visualisation showing the existing view alongside an approximation of how the wind farm might look at night with aviation lighting may be useful. This is only likely to be required in particular situations where the wind farm is likely to be regularly viewed at night (e.g. from a settlement, transport route) or where there is a particular sensitivity to lighting (e.g. in or near a Dark Sky Park or Wild Land Area). Not all viewpoints will need to be illustrated in this way. The visualisation should use photographs taken in low light conditions, preferably when other artificial lighting (such as street lights and lights on buildings) are on, to show how the wind farm lighting will look compared to the existing baseline at night. It is only necessary to illustrate visible lighting, not infrared or other alternative lighting requirements."
- 1385 A NatureScot workshop held on 6 November 2019 indicated that a proportionate and pragmatic approach is required, both in terms of the need to assess likely significant effects under the EIA regulations, complying with current civil aviation standards and providing mitigation on a project and site-specific basis.



- 1386 Mitigation options to eliminate or reduce the need for, and effects of, visible lighting are evolving quickly and developers are exploring these with consultees and the CAA in relation to specific sites. NatureScot has offered a perspective on the efficacy of different mitigation options, noting that the most effective for onshore wind farms appears to be radar activated aviation lights, albeit accepting the considerable technical and cost implications inherent in this potential option.
- 1387 Ministers and planning authorities are using planning conditions/ requirements to manage effects. It is recognised that developers need flexibility to utilise the most appropriate mitigation once they are ready to start discharging conditions. Conditions provide certainty that effects will be managed along with some flexibility for developers to identify the most appropriate mitigation option(s) post consent and prior to construction, and to agree these with the relevant decision maker.
- 1388 In terms of visual effects, NatureScot's view (as expressed at a seminar in November 2019) is that lengthy debate about the exact brightness of lights (including in visualisations) is potentially not helpful and that it is better to focus on where they will be visible, how many lights will be visible and the level of change from the baseline situation.
- 1389 Notably the magnitude (level) of change could be lessened through mitigation, which may include reducing the brightness of the lights, as is the case for AyM. This in turn reduces the area over which the AyM aviation lights would be visible.
- 1390 NatureScot has also taken a pragmatic view with night-time visualisations, requesting that decision makers, consultees and communities require visualisations from a small number of relevant viewpoints to understand these effects. NatureScot also recognises the challenges of capturing night-time photography and accept that some post photographic manipulation of images to provide a good representation is acceptable.



# Snowdonia National Park Authority Supplementary Planning Guidance

- 1391 SNP Supplementary Planning Guidance (SPG) 14: Obtrusive Lighting (Light Pollution) October 2016 sets out the SNP's approach to lighting design and the protection and enhancement of dark skies within SNP.
- 1392 It reflects the Dark Sky Reserve (DSR) status obtained from the International Dark Sky Association for SNP in 2015. Within the reserve three darker 'core' areas have been identified. SPG (2016) states that
  - "These areas have the darkest skies and are in the remotest parts of the National Park. Very little new development is expected in these areas therefore the emphasis will be on encouraging improved and more efficient use of lighting to maintain and enhance the dark sky."
- 1393 The boundaries of the DSR and 'Core' areas are shown on Figure 10a: Baseline Light Pollution (Annex 10.4).
- 1394 Increasing concern about the loss of darks skies at night is noted in the SPG as having been highlighted by the CPRE in 2003 when it published maps of light pollution across the UK in its report entitled 'Night Blight'.
- 1395 The SPG sets out a list of the forms of obtrusive light (light pollution). The lighting proposed on the offshore elements of AyM would not give rise to light pollution in the form of glare, light trespass or sky glow however the category entitled Scenic Intrusion is relevant and is described in the SPG as follows:
  - "This is light pollution that can be caused by any light source or reflected glow that is not in keeping with the characteristics of an area recognised as having high landscape or townscape value. In addition to its location, orientation and intensity, the colour of a light can also be a significant intrusion as it can alter the character of a place after dark and adversely affect its scenic quality and amenity. This is of particular relevant to Snowdonia National Park as it is a protected landscape and has Dark Skies Reserve status."
- 1396 The SPG sets out design considerations for the lighting of new development in Section 6. The following guidelines are relevant to the lighting of the offshore elements of AyM:



- At an early stage in the design process, it will be necessary to examine how the development will interact with the night-time environment; how it will be used at night and, by design, minimise the need for exterior lighting for example, by using lighting only where and when it is necessary, using an appropriate strength of light and adjusting light fittings to direct the light to where it is required.
- Illumination should be appropriate to the surroundings and character of the area as a whole.
- New lighting can be shown on plans and additional information provided on attached schedules.
- For major development and infrastructure projects within and adjacent to the National Park, proposals will need to demonstrate that lighting has been designed to avoid adverse effects upon the experience of dark skies and dark landscapes of Snowdonia National Park. In addition to the information requirements set out above, site analysis of the current baseline experience of dark skies, dark landscapes and current lighting effects would be required.

# Snowdonia National Park Authority Eryri Local Development Plan 2007

- 1397 The following Eryri Local Development Plan 2007-2022 (Eryi, 2011) policy is relevant to the consideration of the effects of the lighting of the offshore elements of AyM.
- 1398 Development Policy 1: General Development Principles (1)
  - "To conserve and enhance the 'Special Qualities' and purposes of the National Park development will only be permitted where all of the following apply:
  - xii. The development is compatible with, and does not cause significant harm, to the environment, neighbouring residential amenity or the amenity of the Park by way of noise, dust, vibration, odour, light pollution, hazardous materials or waste production."
- 1399 This is particularly relevant within SNP where dark skies are also part of the Special Qualities of SNP as defined in the SNP Management Plan 2010-2015 and in the SNP Partnership Plan 2020 (Consultation Draft). Reference should be made to Table 10 of this chapter for further information on the Special Qualities.



## Anglesey and Gwynedd Joint Local Development Plan

- 1400 The following Anglesey and Gwynedd Joint Local Development Plan (2017) policy is relevant to the consideration of the effects of lighting of the offshore elements of AyM.
- 1401 Policy PCYFF 2: Development Criteria
  - "Additionally, planning permission will be refused where the proposed development would have an unacceptable adverse impact on:
  - 7. The health, safety or amenity of occupiers of local residences, other land and property uses or characteristics of the locality due to increased activity, disturbance, vibration, noise, dust, fumes, litter, drainage, light pollution, or other forms of pollution or nuisance."
- 1402 This is particularly relevant within IoA AONB where dark skies are also part of the Special Qualities of the AONB as defined in The Isle of Anglesey Area of Outstanding Natural Beauty, Management Plan Review 2015-2020. Reference should be made to Table 7 of this chapter for further information on the Special Qualities.

## 10.12.3 Methodology

1403 The methodology for the assessment of the night-time visual effects is set out in Section 1.1.6 of Annex 10.1: SLVIA Methodology.

## Visual representations

#### **ZTVs**

1404 ZTV analysis has been undertaken to show the areas from which the medium-intensity aviation lights of MDS A and MDS B may be theoretically. These are presented in Figures 21a-c: Hub Height Aviation Lighting ZTV (MDS A); and Figures 22a-c: Hub Height Aviation Lighting ZTV (MDS B).



These ZTVs can be used to identify where the aviation lights may theoretically be visible and how many lights may be theoretically visible from different locations. The ZTV illustrates the 'bare ground' situation and does not take into account the screening effects of vegetation, buildings, or other local features that may prevent or reduce visibility. It also does not indicate the decrease in visibility of the lights that occurs with increased distance. The nature of what is visible from 5 km away would differ markedly from what is visible from 15 km or 30 km away, although both are indicated on the ZTVs as having the same level/ intensity of visibility in terms of number of aviation lights visible.

#### **Visualisations**

- 1406 Night-time baseline view panoramas and photomontage visualisations showing medium-intensity nacelle mounted aviation lighting and platform level marine navigational lighting are presented in Annex 10.6.
- 1407 Although aviation lighting manufacturers must meet the minimum requirements, their products may vary in relation to recommended limits set out in ICAO standards, which makes it difficult producing accurate visualisations as the lighting characteristics of different light fittings, of the same intensity, may vary outside the minimum requirements stipulated by ICAO. The night-time photomontages shown in these figures have been produced to show 2,00cd lighting, to inform the assessment of worst-case effects assessed with reference to the intensity of the operational OWF aviation lights visible.
- 1408 The night-time photography has been captured in low light conditions, after the end of civil twilight, when 'night' has been reached and when other artificial lighting, such as streetlights, car headlamps and lights on buildings are on, to show how the aviation lighting would look compared to the existing baseline at such times.
- 1409 The flashing effect of aviation lights on operational WTGs is not possible to capture so they are not all shown 'on' in the baseline views. The proposed AyM aviation lights are however all shown 'on' and visible resulting in them appearing more consistent with greater relative impact across the views.



- Existing lights shown in the photographs may appear larger and more blurred than those seen to the naked eye in the field when the photographs were captured. The term used in photography to describe this effect is 'Bokeh' which is defined as 'the way the lens renders out-offocus points of light'. This has proved difficult to avoid when taking photographs of light at varied distances across a view. The blurred nature of the lights is also exacerbated by their movement, particularly on vehicle headlights. Where the lights of the offshore elements of AyM have been added to the night-time photomontages, this effect has been emulated.
- 1411 The WTGs used in the night-time visualisations have been positioned so that so that all the lights are visible within the visualisations, representing a worst-case impression. As the blades turn around in front of the lights there may are also incidences whereby the emitted light spills across the blades producing a further incidental effect. These effects associated with WTG rotor movement cannot be captured within the limitations of the photomontages.
- 1412 Night-time visualisations have been prepared from five viewpoints however, the daytime visualisations provided for the numerous other viewpoints also provide a useful indication of the locations from where the hub height aviation lights may be visible.

#### 10.12.4 Baseline conditions

#### Introduction

- 1413 The study area for the SLVIA is shown in Figure 1 (Annex 10.5). The night-time assessment however only includes the effects on the parts of the study area that are within IoA, Gwynedd, Conwy and SNP. Figure 8 (Annex 10.5) shows the district boundaries along with the landscape planning designations.
- 1414 The baseline lighting conditions across the study area vary considerably and OPEN is not aware of a single data source that serves to provide a detailed or quantitative evidence base. The assessment of night-time effects is not based on quantitative measurement of light levels but relies on the professional judgement of Chartered Landscape Architects.



- 1415 To help understand and illustrate the existing baseline lighting levels of the Study Area, Figure 10a (Annex 10.5) illustrates information relating to light pollution in the study area. This is derived from information prepared by LUC on behalf of CPRE, who have produced interactive maps of the UK's light pollution and dark skies as part of a national mapping project. This is based upon data from the National Geophysical Data Center, part of the National Center for Environmental Information in the USA. Land Use Consultants (LUC) has processed this satellite data to prepare a map showing the areas of relative light pollution across the land within the UK (LUC/CPRE, 2016).
- 1416 Each pixel in the mapping shows the level of radiance (night lights) shining up into the night sky, which have been categorised into colour bands to distinguish between different light levels, from colour band 1 (darkest) to 9 (brightest).
- 1417 The map clearly identifies the main concentrations of night-time lights, creating light pollution that spills up into the sky. Most notably, this is in, and around the main settlements due to the influence of street and building lighting.
- Night lighting at the urbanised and settled locations provides a considerable level of baseline illumination, which is most apparent when travelling through and around the coastal parts of the study area east of Bangor. Lighting within this urbanised coastline is intrusive in interrupting the transition between the darker landscapes and dark skies above them. The main influence of this occurs in views north and northeast towards the seascape from the northern parts of SNP DSR, the southeast facing coast of IoA between Menai Bridge and Penmon Point and inland locations within Gwynedd and Conwy. The well-lit areas of coast are, however, less influential in views from the north-east facing coast of IoA.
- 1419 The impression gained from Figure 10a (Annex 10.5) is borne out by the assessment experience from visiting and inspecting the study area at night. However, it is useful to understand that the night light data provides information about the relative night light levels at a particular location. It does not take into account the influence of that night light in views from a wider area and this is of particular relevance when considering the baseline settings of the SNP DSR and the IoA AONB.



## Isle of Anglesey

- 1420 On the IoA the main concentrations of night light are again associated with the settlements. The main concentrations of higher levels of night light are shown to occur in areas that are not within the boundary of the IoA AONB around Menai Bridge and to the west inland at Llangefni with the largest concentration of highest levels of night light being around Holyhead.
- There are also shown to be some patches of higher/ moderate levels of night light along the north coast at Caemes and Anlwch. Moderate to low-levels are shown to occur along the eastern coast at and around Moelfre (within the IoA AONB) with a higher concentration of moderate levels around Benlech. Lower levels spread south with slightly lower levels to Pentraeth. Beaumaris on the south-east coast of IoA (within the boundary of the IoA AONB) is shown to have a concentration of moderate levels of night light. Whilst the higher night light levels of the settlements are often shown to arise beyond the boundaries of the IoA ANOB the influence of that night light extends into parts of the IoA AONB through its visibility from a wider area.
- 1422 Elsewhere within IoA the levels of night light are shown to generally be within the lowest two band levels.

# Gwynedd

- 1423 In Gwynedd moderate to higher levels of night light are indicated around Bangor and Caernarfon with lower light levels shown where settlement is strung out along the main road corridors such as at Abergwyngregyn and eastwards towards Llanfairfachan (in Conwy).
- 1424 The area of the coast around Pehrhyn Castle shows a small area of low night light level.

# Snowdonia National Park Dark Sky Reserve

Dark skies are considered to be a component of the SNP Tranquillity and Solitude – Peaceful Areas Special Quality as noted in Section 10.11.5.



- To the south of the settled coastal edge of Conwy and south-west of the Great Orme the SNP DSR night light levels are shown to be generally of the lowest two band levels. This is with the exception of the area in the vicinity of the settlement of Betws y Coed in the east and along the main road routes where there are small concentrations of settlement and night light. The identified Core Zones are shown to be almost entirely within the lowest category of night light level.
- 1427 Whilst the higher night light levels of the settlements within the wider area is often shown to arise beyond the boundaries of the SNP DSR the influence of that night light extends into parts of the SNP DSR through its visibility from a wider area, particularly from elevated vantage points. This is most notably the case where there is visibility of the higher levels of night light along the urbanised and settled coast of Conwy and within Gwynedd at relatively close range.

## Conwy

- 1428 Particularly of relevance to this assessment is that Figure 10a identifies that the largely urbanised coast of Wales to the south and east the Great Orme (from Conwy east to Kinmel Bay) is partially within the brightest light influence categories, with small patches where the night light pollution is shown at the greatest, light-influenced end of the spectrum.
- 1429 Inland of this brightly lit coastal edge, within Conwy, the light levels are by contrast, substantially lower with only a few localised areas where the levels are higher than the lowest levels, such as around Llanrwst and Llanfair Talhaiarn. Low night light levels are also shown on the northern part of the Great Orme.
- 1430 To the west of the Great Orme and along the Conwy coast to the north of SNP moderate levels of night light pollution are shown to occur. This is associated with the settlements of Llanfarifechan, Penmaenmawr and Dwygyfylch but is also likely result from the lighting on the A55, North Wales Expressway in this vicinity.



## Seascape

- 1431 The CPRE night light information does not include any baseline data about night lights in the seascape. Whilst the small point sources of light will not give rise to sky glow or glare as is the case with lighting in settlements lighting of the operational OWFs, on the Douglas Oil and Gas Platform Complex (Figure 1, Annex 10.5) and the lights on the large-scale ships using the shipping channel to the north in the Irish Sea are part of the baseline context for the lighting of the offshore elements of AyM.
- 1432 Aviation and navigation lighting of the operational OWFs is most markedly visible from coastal locations to the east of the Great Orme but is also visible across the Creuddyn Peninsula from locations on the west coast and the northern and higher, more distant slopes and summits of SNP to the south.
- 1433 At a range of 36.2 km and 37.4 km from the GyM and Rhyl Flats OWF WTGs respectively in views from Moelfre Headland (Viewpoint 4, Annex 10.5) whilst they are visible when and if viewers know they are there, it is difficult to discern the aviation lights with the naked eye and they may not be noticed by some observers.
- 1434 A notable factor of the coastal lighting are the light houses along the east coast of IoA and lit buoys close to the coast.

# 10.12.5 Assessment of night-time visual effects

#### Introduction

- 1435 The visual influence of the medium intensity red aviation lighting is likely to be more noticeable than the lower levels of light intensity associated with the navigation lighting. This is due to the higher intensity of these lights as well as their location higher on the structures which results in their theoretical and actual visibility being more widespread.
- 1436 Therefore, whilst the night-time visualisations show the navigation lighting (where visible) the assessment of night-time visual effects concentrates on the effects of the aviation lighting.



- 1437 The assessment of night-time visual effects is undertaken through an understanding of the baseline night-time light influence, ZTV analysis and mapping and through reference to night-time visualisations and viewpoint assessment.
- 1438 Whilst there are only five viewpoints that illustrate the lighting of AyM OWF reference can also be made to the daytime visualisations to gain an understanding of where the hub level aviation lighting may be visible and the distance of this from the receptors and viewpoints. There are, however, notably less aviation and navigation lights than there are WTGs in either scenario.

## Zone of Theoretical Visibility

- 1439 Visual effects of the aviation lighting will only occur where their introduction influences the visual amenity and views experienced by people in the area. The geographic areas where these visual effects may occur is defined by the aviation lighting ZTVs shown in Figures 21 and 22 (Annex 10.5) show the ZTVs for the aviation lights in the MDS A and MDS B scenarios. Their locations are shown on Figures 2a and 2b and are as set out below:
  - The MDS A scenario includes 19 WTGs with 2000 candela (reducing to 200 candela), flashing red, hub mounted (179m above MHWS) aviation lights on perimeter WTGs and a met mast with 2000 candela (reducing to 200 candela), steady red, aviation light mounted at highest point (179m above MHWS).
  - The MDS B scenario includes 26 WTGs with 2000 candela (reducing to 200 candela), flashing, red, hub mounted (157m above MHWS) aviation lights positioned on perimeter WTGs and a met mast with 2000 candela (reducing to 200 candela), steady red, aviation light mounted at highest point (157m above MHWS).
- 1440 The aviation light ZTVs can be used to identify where the aviation lights may theoretically be visible and how many lights may be visible from different locations in each scenario. The base mapping has been darkened to give an indication of those areas that will not be affected by visibility of the aviation lighting.



1441 The relatively taller height above MHWS of the MDS A scenario aviation lights results in their visibility being theoretically possible over a slightly larger geographical area than those of the MDS B scenario. However, from locations where the aviation lights of MDS A and MDS B are both theoretically visible the aviation lights of MDS B are more numerous across the AyM array area.

## Night-time viewpoint assessment

1442 Table 15 sets out the assessment of the night-time effects at the selected viewpoints for MDS A and MDS B.



Table 15: Night-time Effect on Representative Viewpoints During Operation.

VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
4: Moelfre Headland at sculpture Isle of Anglesey AONB	The viewpoint is taken at the Bryn Wylfa (Look-out) sculpture which is located at a local high point on a PRoW set back slightly from the coastline route of the WCP. There are several paths linking around the headland with ready access from the nearby village of Moelfre.  Open sea views extend across approximately 150 degrees of the field of view. At night-time, the coastal areas have relatively low levels of lighting with a small number of point sources visible from properties and vehicles. This occurs most notably in the nearby village of Moelfre.  The views out to sea include vessels using the shipping lane, which are prominently lit with white lights. Although the specific ships will change and move lighting in this seascape is likely to be a regular occurrence. Although barely visible in the photograph, the flashing red aviation lights on the closest of the operational OWFs (GyM and Rhyl Flats) are just discernible to the east.  Value of view: Medium-high  Located within the loA AONB where the identified Special Qualities include dark skies as a component.  LANDMAP visual and sensory evaluation - moderate  Susceptibility to change (Night-time): Medium-high  Receptors are people walking along the paths or within the nearby settlement who may wish to experience a rising or setting sun from the headland. They may have a focus on the expansive and varied views available from this location as well as possibly star gazing from this area of relative darkness.  Susceptibility is moderated by distance to AyM array area and current outlook contains some lighting although they are less prevalent in the direction towards the AyM array area.  This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility at night is moderated by the incidence of some lights within the seascape and wider views. This is reflected in the CPRE mapping of night light as illustrated on Figure 10a (Annex 10.5)	WTGs visible across approximately 17 degrees of the sea view.  Operation Night-time (MDS A): Negligible  19 WTGs with 2000 candela (reduced to 200 candela), flashing, red, hub mounted (179m above MHWS) aviation light.  Met mast with 2000 candela (reduced to 200 candela), steady red, aviation light mounted at highest point (same as WTG hub height) and marine navigation flashing white light.  WTG aviation lights apparent across approximately 17 degrees of the wide sea view at a range of 26.9 km.  Operation Night-time (MDS B): Negligible  26 WTGs with 2000 candela (reduced to 200 candela), flashing, red, hub mounted (157m above MHWS) aviation light.  Met mast with 2000 candela (reduced to 200 candela), steady red, aviation light mounted at highest point (same as WTG hub height) and marine navigation flashing white light.  WTG aviation lights apparent across approximately 17 degrees of the wide sea view at a range of 26.9 km.	Operation Night-time (MDS A)  Minor effect (Nonsignificant), adverse, long term, reversible.  Operation Night-time (MDS B)  Minor effect (Nonsignificant), adverse, long term, reversible.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	<b>Sensitivity: Medium-high -</b> taking account of the assessed medium-high value of the viewpoint and the medium-high susceptibility to the proposed change to it.		
13: Great Orme - near summit complex Conwy – Great Orme Heritage Coast	The viewpoint is located on a well-worn path that runs between the car park and a PRoW to the north of the summit complex.  Sea views are available across a field of view of approximately 160 degrees. To the north these are constrained by the rising landform of the Great Orme and to the south and east by the varied landform of the north Wales coast which include the bays of Llandudno and Colwyn.  OWF aviation lighting is a feature of the seascape in the views to the north-east with the closest being Rhyl Flats at 12 km and Gwynt- y- Mor stretching across the widest field of view at a range of 16.7 with further OWF beyond these.  Operational OWF aviation lighting is seen across approximately 36 degrees of the field of view.  There are numerous paths, minor roads traversing the slopes with parking areas and look out points also visible and offering relatively easy access to obtain views during the twilight hours (to see the sun rise in the east or set in the west across loA) or in the dark. There are no facilities at the summit at night but it appears to be a gathering point for drivers, some of which may be there with the purpose of appreciating the views from the summit.  The summit of the Great Orme is busy with activity and vehicles and there is no sense of remoteness or tranquillity in close proximity to it.  Value of view: Medium-high  Great Orme & Creuddyn Peninsula (SLA) and Great Orme Heritage Coast  Susceptibility to change (Night-time): Medium  The view is representative of receptors on the summit of the Great Orme where they are likely to be using the facilities and routes as visitors or for recreation in a semi-rural setting.	Operation Night-time (MDS A): Medium-Low  19 WTGs with 2000 candela (reducing to 200 candela), flashing, red, hub mounted (179m above MHWS) aviation light visible across approximately 39 degrees of the field of view at a range of 11.8 km.  Met mast with 2000 candela (reducing to 200 candela), steady red, aviation light mounted at highest point (same as WTG hub height) and marine navigation flashing white light.  These lights extend the lit skyline across a wide, further expanse of the view. The combined horizontal field of view of WTG aviation lights is approximately 75 degrees, which is a large proportion of the sea skyline.  The larger scale of the WTGs compared to the operational WTGs is less apparent at night.  Operation Night-time (MDS B): Medium-Low  26 WTGs with 2000 candela (reducing to 200 candela), flashing, red, hub mounted aviation light.	Operation Night-time (MDS A)  Moderate effect (Significant), adverse, long term, reversible.  Operation Night-time (MDS B)  Moderate effect (Significant), adverse, long term, reversible.
	There are also less elevated opportunities also available in this direction from Marine Drive (WCP) as well as people in the coastal parts of the small settlement or using the beach and facilities for recreation.  Views from this location are likely to be part of intended experience.	Met mast with 2000 candela (200 candela), steady red, aviation light mounted at highest point (same as WTG	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).	hub height) and marine navigation flashing white light.	
	Susceptibility at night is moderated by the incidence of lights in the view both along the coast but also through the flashing lights of the operational OWFs as well as the lights on shipping and on the Douglas Oil and Gas Platform Complex. This is reflected in the CPRE mapping of night light as illustrated on Figure 10a (Annex 10.5)  Sensitivity: Medium-high	These lights extend the lit skyline across a wide, further expanse of the view at a range of 11.8 km. The combined horizontal field of view of WTG aviation lights is approximately 75 degrees, which is a large proportion of the sea skyline.	
		The larger scale of the WTGs compared to the operational WTGs is less apparent at night.	
22: Abergele	The viewpoint is located on the promenade between the sea wall and the play	Operation Night-time (MDS A): Low	Operation Night-time
promenade	park, east of the parking and just north-west of the railway station.	19 WTGs with 2000 candela (reducing to	(MDSA)
Conwy	The viewpoint is representative of views from the promenade and visitor facilities	200 candela), flashing, red, hub mounted	Moderate-Minor effect
	as well as from the WCP and NCR 5 which follow the route. It is also representative of views from the rail line and nearby A55 both of which have some open views in this vicinity.	(179m above MHWS) aviation light.  Met mast with 2000 candela (reducing to	(Non-significant), adverse, long term, reversible.
	It is not representative of views from the settlements of Pensarn and Abergele which are relatively low-lying and sited on the inland side of main transport	200 candela), steady red, aviation light mounted at highest point (same as WTG hub height) and marine navigation flashing	Operation Night-time (MDS B)
	routes, which limit views out to sea.	white light.	Moderate-Minor effect
	Views out to sea occur across approximately 160 degrees of the field of view from this elevated viewpoint. They are contained in the west by Little Orme, Penrhyn Bay, Rhos Point and Colwyn Bay and to the north-east by the coastline at Rhyl. The rising landform of the Clwyndan Range can be seen further inland to the east.	These lights extend the lit skyline across a relatively small further expanse of the view. WTG aviation lights visible across approximately 34 degrees of the field of view largely in the vicinity of but also	(Non-significant), adverse, long term, reversible.
	OWFs are a feature of the seascape in the views to the north-east with the closest being Rhyl Flats at 8.9 km and Gwynt- y- Mor stretching across the widest field of view at a range of 13.9 km. North Hoyle and Burbo Bank and Extension are also seen across the sea skyline at greater distances. Operational OWF aviation lighting is seen across approximately 90 degrees of the field of view.  The long sweeping beach is a key feature of the coastline here. This is seen in the immediate context of lit settlement and urban infrastructure including	extending the existing, Rhyl Flats and GyM OWFs. The combined horizontal field of view of the aviation lights is approximately 100 degrees. This indicates that AyM aviation lighting adds an additional 10 degrees to the OWF lighting extents across a wide sea view.	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	recreational facilities, car parking area, masts and prominent street lighting as well as the lights of the houses beyond the rail line.	The scale of the AyM WTGs is less noticeable at night.	
	Settlement, large areas of caravan parks and recreational facilities can be seen as part of the wider view, extending along the coast up the otherwise frequently wooded hill slopes to the west and along the coastline to the north-east at Rhyl where the tall structure at the amusement park and the Town Hall spire are visible. This urban area provides a strong influence of night lighting.  Value of view: Medium  Not located within a National or Local landscape designation.  LANDMAP visual and sensory evaluation – low  Likely to be locally valued as the outlook from this section of the coast.  Susceptibility to change (Night-time): Medium  The view is representative of receptors visiting, walking or cycling along this coastal route which is relatively accessible and easy to access safely in the twilight hours or in the dark.  Also representative of the views gained by users of the rail line and A55.  Views out to sea are part of the visual setting for these transient receptors.  This viewpoint is not located in an area identified as Undisturbed in the Tranquillity Classification (2009).  Susceptibility at night is moderated by the incidence of lights in the view both along the coast but also through the flashing lights of the operational OWFs as well as the lights on shipping and on the Douglas Oil and Gas Platform Complex. This higher level of night light is reflected in the CPRE mapping as illustrated on Figure 10a (Annex 10.5).  Sensitivity: Medium	Operation Night-time (MDS B): Low 26 WTGs with 2000 candela (reducing to 200 candela), flashing, red, hub mounted (157m above MHWS) aviation light.  Met mast with 2000 candela (200 candela), steady red, aviation light mounted at highest point (same as WTG hub height) and marine navigation flashing white light.  These lights extend the skyline that is affected by WTG aviation lighting across a relatively small further expanse of the view (approximately 10%).  The scale of the AyM WTGs is less noticeable at night.	
60: Foel Lus SNP DSR	This viewpoint is located on the Wales Coast Path where it contours round the steeply sloping, north facing side of Foel Lus, below the summit at a height of approximately 250m AOD. It can be reached also via a number of different PRoW that provide links from around Dwygyfylchi, Penmaenmawr and the Synchant Pass Road to the east where there are several small parking areas.	Operation Night-time (MDS A): Low 19 WTGs with 2000 candela (reducing to 200 candela), flashing, red, hub mounted (179m above MHWS) aviation light.	Operation Night-time (MDS A)  Moderate-Minor (Non- significant), adverse, long term, reversible.



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
	This section of the WCP provides a relatively popular outlook in daytime partly	Met mast with 2000 candela (reducing to	Operation Night-time
	due to its relatively accessible location close to settlement and other facilities.	200 candela), steady red, aviation light	(MDS B)
	The immediate context of the viewpoint is the diverse rock and grass/ heather	mounted at highest point (same as WTG	Moderate-Minor (Non-
	covered summit and steep side slopes of Foel Lus itself which present some risks	hub height) and marine navigation flashing	<b>significant)</b> , adverse, long
	for people accessing this area in the twilight hours or in the dark along a relatively	white light.	term, reversible.
	rough path.	These lights extend the lit seascape across	
	The outlook from the summit is panoramic and diverse. Views over the seascape	a further 27 degrees of the horizontal field	
	occur over approximately 100 degrees of the field of view with the Great Orme	of view at a range of 19.6 km. The lights	
	and intervening hills of Allt Wen and Penmaen Bach breaking up the wider	appear in close proximity to the landform	
	expanse and screening more distant sections of the coast.	silhouette of the Great Orme visible during	
	The flashing red aviation lighting on the Rhyl Flats and GyM OWFs are visible to	twilight, although it is apparent that they	
	the north-east beyond the intervening Creuddyn Peninsula and Penmaen Bach	are not part of it as they extend further	
	at ranges of 18.8 km and 24.3 km respectively. It is also possible to see the bright	west into the open seascape.	
	lights of the Douglas oil and gas platform hub in the same part of the view. Lights	This occurs in a part of the view that has	
	on distant ships are also visible in the seascape to the north.	some lighting in closer proximity to the	
		viewpoint along the coast at Dwygyfylchi	
	To the south-west the upland containment is provided by the quarried hillside of Penmaen Mawr.	and around the lower western side slopes	
		of the Great Orme at Gogarth.	
	Between these containing landforms and below the viewpoint, along the	The scale of the AyM WTGs is less	
	coastline, lie the settlements of Penmaenmawr and Dwygyfylchi. Street lighting	noticeable at night than during the day	
	and lighting within properties is visible within these areas. Vehicles on roads and	and the feature of the Great Orme offers	
	the particularly intense lighting along the A55, is prominent along the coastline.	less of a scale comparison with the AyM	
	The more distant views include a small lit area of Llandudno where it extends	WTGs.	
	across the Creuddyn Peninsula.		
	At this range lighting is also seen extending around the lower western side slopes	Operation Night-time (MDS B): Medium-low	
	of the Great Orme at Gogarth and up onto higher ground from the south. The	38 WTGs with 2000 candela (reducing to	
	summit complex as well as other buildings associated with the various visitor	200 candela), flashing, red, hub mounted	
	attractions also have visible lighting.	aviation light.	
	Lights are visible to the west along the coast of the Isle of Anglesey with the lights	Met mast with 2000 candela (reducing to	
	at Beaumaris identifiable and reflected in the sea. The sweeping light of the	200 candela), steady red, aviation light	
	Penmon Lighthouse is seen intermittently.	mounted at highest point (same as WTG	
	More distant, dispersed, spot sources of lighting are visible along the more distant	hub height) and marine navigation flashing	
	Anglesey coast and may be associated with vehicles or settlement.	white light.	
		Lit WTGs visible across a similar combined	
	Value of view: High	extent of horizontal field of view when	



VIEWPOINT	BASELINE CONDITION AND SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF EFFECTS
VIEWPOINT	Located within the SNP.  LANDMAP visual and sensory evaluation - high  Susceptibility to change: Medium-low  Receptors are people walking with a focus on exercise and to obtain the expansive views visible from this section of the WCP. Relatively few people are likely to visit this viewpoint or locations in northern SNP in the hours of darkness although some may venture a short distance away from the public highway to watch the sun set to west over Anglesey. The slopes are steep along this path and the paths are quite rough which is likely to deter many people from venturing into the SNP DSR during the hours of twilight or darkness.  Long distance, experienced walkers may set off or return in the hours of darkness	compared with MDA A. Range of aviation lights is 19.5 km.  The lights appear to be in very close proximity or sitting on top of the landform silhouette of the Great Orme visible during twilight, although it is apparent that they are not part of it as they extend further west into the open seascape.  This occurs in a part of the view that has some lighting in closer proximity to the viewpoint along the coast at Dwygyfylchi and around the lower western side slopes of the Great Orme at Gogarth.  The scale of the AyM WTGs is less noticeable at night than during the day	SIGNIFICANCE OF EFFECTS
	to or from locations within the SNP. It will be an expectation of returning towards this northern coast that lighting is part of the context for this more developed part of the SNP.  Walkers are transient so views from this location will be relatively short in duration. Susceptibility is moderated by distance to AyM array area and current outlook contains many sources of lit development features as well as the lights on shipping and on the Douglas Oil and Gas Platform Complex.		
	<b>Sensitivity: Medium -</b> taking account of the assessed high value of the viewpoint and the medium susceptibility to the proposed change to it.		



## Night-time visual effects of MDS A aviation light visibility

- 1443 There are extensive areas of the study area that are afforded no visibility of the MDS A aviation lights.
- 1444 The North Wales coast already includes lighting along much of its coastline and the Northern Lights may be seen above this in certain situations. The aviation lights would be located just above the sea skyline and not up in the night sky. They may be visible in the same direction as the Northern Lights from parts of North Wales. The aviation lights would not be sufficiently bright in views towards the Northern Lights to be noticeable against a bright sky or cause light pollution that would make the Northern Lights any less apparent.

## Isle of Anglesey

- 1445 There are large parts of the IoA that have no theoretical visibility of the aviation lights.
- 1446 Within the IoA there is shown (Figure 21a) to be theoretical visibility of between 17-20 aviation lights from much of the eastern coast and inland across north-east facing slopes. Actual visibility will be reduced from theoretical visibility except for immediately along the coast and from open moorland/ small hills set back from the coast. There has been a reduction in the numbers and horizontal spread of the aviation lights as well as an increase in the distance to them from the IoA coast due to stakeholder comments. In addition, the intensity of the light that will reach the IoA coast due to the mitigation incorporated in the MDS is reduced such that at a range of approximately 20 km 200 candela aviation lights would appear at a brightness that is akin to the brightness of a star in the sky. At a range of over 20 km (which equates to the majority of the IoA coastline) such lights are unlikely to be readily noticeable, particularly in the context of the brighter light emitted from ships.
- 1447 The navigation lights will not be visible at this range due to their lesser intensity and lower elevation relative to sea level.



- 1448 Some of the north-easterly sections of the coast and the section of the coast between Penmon Point and Bwrdd Arthur are relatively remote, with no paths or accessible only via PRoW and the Wales Coast Path. However, there are locations that are relatively accessible from settlement and roads where there are visited vantage points from where people are most likely to obtain such views during the hours of twilight or even once it is dark e.g. at Point Lynas (Viewpoint 2), Moelfre Headland (Viewpoint 4), Benlech (Viewpoint 16), Red Wharf Bay (Viewpoint 5) and Beaumaris on the WCP (Viewpoint 8). The aviation lights would be visible at a range of approximately 25 to 29 km from these locations.
- 1449 The settlements at Moelfre, Benlech and Beaumaris provide for some existing baseline lighting of these coastal areas as shown in Figure 10a (Annex 10.5). However, existing lighting within the seascape is limited to the influence of lighthouses, the bright lights of ships and the aviation lights on the relatively distant operational GyM and Rhyl Flats OWFs.
- 1450 In the areas where there are relatively low levels of baseline light influence but also some likelihood of the AyM aviation lights being visible by receptors (due to the degree of accessibility) the night-time visual effects will be similar to those found at Moelfre Headland (Viewpoint 4).
- 1451 Minor effect (Non-significant), adverse, long term and reversible nighttime visual effects may arise within the IoA in the vicinity of the following coastal locations:
  - Point Lynas (Viewpoint 2);
  - Moelfe Headland (Viewpoint 4)
  - The beach and parking areas around Traeth Lligwy to the northeast of Rhôs Lligwy;
  - Traeth Bychan and Penrhyn; and
  - Red Wharf Bay (Viewpoint 5).
- 1452 There may be a slightly higher magnitude of change (Low) in night-time views at locations in closer proximity to the AyM array area. This would result in *Moderate-Minor effects (Non-significant)* adverse, long term and reversible in the vicinity of the following coastal locations:
  - Penmon Point (Viewpoint 7); and



- Trwyn y Pnrhyn parking (Viewpoint 28).
- The night-time effects would be **Minor effect (Non-significant)**, adverse, long term and reversible at locations such as at Benllech and Beaumaris where baseline light conditions are of higher levels and in locations where accessibility at night is relatively difficult such as the coast south of Point Lynas and west of Penmon Point as well as at the majority of other locations within the IoA and the IoA AONB.

## Gwynedd

- 1454 The eastern edge of Bangor and the coastline to the east towards Llanfairfachan and along the coastal edges of the other settlements within Conwy offers locations which are relatively accessible for coastal walks that may begin or end in twilight conditions. These areas are shown to have theoretical visibility of the aviation lights that varies from up to 20 along much of the coastal strip to 1-4 aviation lights further inland.
- 1455 The settled coast and influence of the A55, North Wales Expressway provides for some existing baseline lighting of these coastal areas as shown in Figure 10a (Annex 10.5). However, existing lighting within the seascape is limited to the influence of the lighthouse at Penmon Point and the settlement along the containing coastlines including at Beaumaris and Llandudno and extending onto the south-west coast of the Great Orme.
- 1456 There has been a reduction in the numbers of the aviation lights due to stakeholder comments. In addition, the intensity of the light that will reach the Gwynedd coast due to the mitigation incorporated in the MDS is reduced such that at a range of approximately 20 km 200 candela aviation lights would appear at a brightness that is akin to the brightness of a star in the sky. At a range of over 24 km from the AyM array area (which equates to all of the land within Gwynedd) such lights are unlikely to be readily noticeable, particularly in the context of the brighter lights around the coastline.
- 1457 The night-time effects would be *Minor (Non-significant)*, adverse, long term and reversible at locations within Gwynedd, largely as a result of the baseline light influence within and around the coastal edge and around Conwy Bay.



## Snowdonia National Park Dark Sky Reserve

- 1458 Dark skies are considered to be a component of the SNP Tranquillity and Solitude Peaceful Areas Special Quality as noted in Section 10.11.5.
- 1459 Theoretical visibility of the aviation lights from the higher land to the south of the coastal edge and extending onto the northern slopes and summits of SNP DSR is shown to occur in certain areas at a minimum range of approximately 16.6 km. These areas are however less likely to be visited by many people during the twilight or darkness hours due to their relative inaccessibility and access via paths, often along steeply sloping land as is the case around Foel Lus (Viewpoint 60) or Conwy Mountain (Viewpoint 12) (Annex 10.6).
- 1460 The baseline lighting influences from these elevated vantage points are similar to those described above for the settled coastline. As shown in night-time viewpoint Foel Lus (Viewpoint 60) the higher elevation provides for more extensive views over some of the well-lit urban areas to the north and north-east over which the aviation lights of the operational OWFs and the aviation lights of AyM are visible.
- There has been a reduction in the numbers and horizontal spread of the aviation lights to them from SNP due to stakeholder comments. In addition, due to the mitigation incorporated in the MDS the intensity of the light that will reach the more distant parts of the SNP is reduced such that at a range of approximately 20 km 200 candela aviation lights would appear at a brightness that is akin to the brightness of a star in the sky. At a range of over 23 km from the AyM array area (which equates to the approximate distance of Viewpoint 36: Tal y Fan) the lights are unlikely to be readily noticeable, particularly in the context of the brighter lights around the coastline.
- 1462 Further to the south within SNP DSR the aviation lights are shown to be theoretically visible from summits and north facing high slopes, largely occurring within a maximum range of approximately 33 km. Summits with theoretical aviation lighting visibility include Tal-y-Fan (Viewpoint 36), Drum, Foel Fras (Viewpoint 38) and Carnedd Llewelyn (Viewpoint 10) (annex 10.6).



- Accessibility within these upland areas is relatively difficult in darkness or twilight and would generally only be undertaken by a few people who may be embarking or returning from a long walk/journey in the hills when the daylight hours are not long enough to allow the distances to be achieved or where they choose to camp in remote locations (although this is unlikely to occur near the summits where there is shown to be potential for visibility of the aviation lights). Alternatively, there may be a small number of shepherds or other people that work in the rural area in the twilight of the early morning/late evening and a very limited number of people that may venture into the hills in order to appreciate the dark sky within this area.
- 1464 Whilst these locations are relatively remote, the upland areas provide vantage points from where there is clear visibility across the settled areas to the north-west and east where there is some degree of lighting along with cars using headlights as they move through the landscape on routes. With reference to the daytime visualisations the aviation lights of the operational OWFs are also likely to be visible from the closer summits and ridges of the upland areas. The upland areas are not entirely devoid of baseline light influence.
- 1465 There is no theoretical visibility of the aviation lights from locations within SNP that offer readily accessible vantage points by people in vehicles.
- 1466 Within Core Zone 1 of SNP DSR there is shown to be some theoretical aviation light visibility from a very limited number of summits and high ridges at ranges of over 37 km. In the majority of cases visibility would be in the range of 5-8 aviation lights, however the summit of Carnedd Moel Siabod is shown to have the potential for theoretical visibility of up to 16 aviation lights at a range of approximately 40 km. At these ranges the aviation lights of AyM are unlikely to be visible. Within Core Zone 2 of SNP DSR is shown to have visibility of the aviation lights across some of its summits and ridges within the study area at a range of over 44 km. Actual visibility of the aviation lights at this range is likely to be difficult to discern.



- 1467 The night-time effects would be *Minor effect (Non-significant)*, adverse, long term and reversible at locations within SNP DSR and on the dark skies component of the Tranquillity and Solitude Peaceful Areas Special Quality of SNP. This is largely as a result of the baseline light influence within the setting of SNP DSR and in particular and around the coastal edge of Conwy over which the aviation lights of AyM are visible in the context of the aviation lights of the operational OWFs but also as a result of the mitigation included within the MDS which reduces the aviation lights to 200 candela when visibility is greater than 5 km.
- 1468 It is notable in this assessment that the effects differ from the daytime visual effects within these areas. This is largely as a result of the fact that it is not possible to see the complex, coastal features such as the Great Orme, indented bays or prominent hills within the intervening area that interact with the views towards the AyM OWF in the daytime views.

#### Conwy

- 1469 Within Conwy the ZTV shows theoretical visibility of the aviation lights across much of the settled coastline, the Great Orme and Little Orme as well as locations inland. As with the actual visibility during the day the screening provided by intervening vegetation and built form will screen actual visibility from much of the inland area. This is with the exception of the vantage points provided by the small hills and higher ground such as at Bryn Euryn (Viewpoint 20) and Mynydd Marian (Viewpoint 21) (Annex 10.6). Visibility of the lower level and intensity navigation and obstruction lights would also be possible at closer ranges within Conwy.
- 1470 Locations that are relatively easy to access by vehicle or readily easily/safely on foot are most likely to be visited by people in these areas at night or twilight. This includes the summit of the Great Orme as well as Marine Drive which circumnavigates it at a low-level, the many promenades and beaches of the coastal towns such as at Llandudno, Penrhyn, Ross Pont, Colwyn Bay, Llandulas and Abergele/Pensarn.



- 1471 While the theoretical visibility of the aviation lights spreads across quite a notable proportion of the study area coastline of Conwy within approximately 11-24 km of the AyM array area it is relevant to note that this coincides in the majority of instances with locations where people will experience high levels of urban lighting and operational OWF aviation lighting in the baseline at night, which will alter their perception of the additional aviation lights. This is illustrated by the night-time visualisation shown for Viewpoint 61: Llandudno Promenade near Venue Cymru.
- 1472 The night-time effects would be **non-significant**, adverse, long term and reversible at locations within Conwy, largely as a result of the baseline light influence within and around the coastal edge of Conwy.
- 1473 This is with the exception of views from the summit and north-eastern parts of the Great Orme (Viewpoint 13) where light levels are lower, but the areas are also relatively accessible during twilight and at night. The magnitude of the change as a result of the close proximity of the lighting and its wide horizontal extent is also a factor. **Moderate effects** (Significant), adverse, long term and reversible night-time visual effects may arise in the vicinity of these areas.

## Night-time visual effects of MDS B aviation light visibility

1474 The geographic spread of the theoretical aviation light visibility is shown to be very similar to that of the MDS A scenario. However the numbers of aviation lights visible across the AyM array area is shown to increase to 33-39 aviation lights from many of the coastal areas and higher slopes/summits inland. *Moderate effects (Significant)*, adverse, long term, reversible night-time visual effects would arise in the same locations as for the MDS A scenario.

## 10.12.6 Potential options for further mitigation of lighting effects

1475 Further environmental measures (mitigation) that may be considered for AyM OWF in discussion with regulators, is shown in Table 16.

Table 16: Potential Options for Mitigation of Night-time Visual Effects.



MITIGATION OPTION	HOW IT WORKS
Directional intensity	Established in ICAO (Annex 14) guidance. This focusses the 2,000 cd (or 200 cd) lighting in the horizontal plane (+ or – a few degrees) and reduces the intensity of the light from locations above and below the horizontal plane. Most current aviation light models on the market will incorporate this as standard.
	It is still to be established if such mitigation would be considered suitable by the MOD in relation to the aviation lighting as their current requirement is for a minimum of 200 cd. Consultation is ongoing.
Reduction in WTGs requiring aviation lights	A reduction in the number of aviation lights would be sought, where feasible, in consultation and agreement with the CAA and MOD.

## 10.13 Cumulative effects

# 10.13.1 Scope of the cumulative assessment

#### Offshore Wind Farms

1476 The operational OWFs located within the study area are as set out in Table 17.

Table 17: Operational OWFs Within the Study Area.

OWF	NO. OF WTGS	TIP HEIGHT (M)	
GуM	160	133	
Rhyl Flats	25	133.5	
North Hoyle	30	107	
Burbo Bank Extension	32	187	



OWF	NO. OF WTGS	TIP HEIGHT (M)
Burbo Bank	25	143.5

- 1477 The addition of the AyM OWF to these operational OWFs is considered throughout the SLVIA. A cumulative ZTV is included at Figure 25 (Annex 10.5) to illustrate the ZTVs of the AyM MDS A along with those of the operational OWFs.
- 1478 As of February 2022, and with the exception of AyM OWF, there are no other consented or proposed offshore wind farms within the 50 km radius SLVIA study area (Figure 1, Annex 10.5).

## Offshore wind farms (Tier 3 development)

- 1479 Round 4 Bidding Areas have been agreed with the Crown Estate and Bidding Areas 4, 5 and 6 have now been named by the successful developers as Mona, Morgan and Morecambe. These are shown to lie partially or fully within the northern part of the Study Area.
- 1480 The locations of these areas are indicated on Figure 1 (Annex 10.5). The Crown Estate leasing process sets out a maximum capacity output for each site. The closest leasing area to the AyM array area is Mona, which has a maximum capacity identified as 1,500MW. To the north of this, on the edge of the study area, the Morgan leasing area also has a maximum capacity of 1,500MW. To the east the Morecambe leasing area has a 480MW capacity.



These projects are still at the early stages of the planning process with scoping reports yet to be submitted for any of the proposed developments. The projects have not gone through The Crown Estate's Habitats Regulations Assessment process or secured Agreements for Lease, and therefore, carry much uncertainty. At this stage in the development process (and even following scoping) very little is known about where the WTGs will actually be proposed within these identified areas as a great deal of technical and environmental work has yet to be undertaken to inform this and define the project envelopes. Developments that are at this stage in the planning process are considered to have Tier 3 level of certainty within the Planning Inspectorate Advice Note Seventeen and as such, no assessment is included within this Chapter. The Round 4 OWF projects would have to include AyM within their cumulative SLVIAs.

# Onshore wind farms and other cumulative development (Tier 1 and 2)

- 1482 The oil and gas infrastructure shown on Figure 1 is operational and therefore included as part of the baseline SLV resource and baseline photographs and main assessment.
- Onshore wind farm and other relevant cumulative development that is operational, consented, at application/appeal or scoping stage is shown on Figure 1 (Annex 10.5) and wind farms are illustrated in the cumulative wirelines prepared for each viewpoint (Annex 10.6). Developments that have been through the scoping process are considered to have Tier 2 level of certainty within the Planning Inspectorate Advice Note Seventeen.
- 1484 The scoping stage Alwen Forest onshore wind farm has been included as a Tier 2 project in terms of its degree of certainty. Its WTGs are shown in wirelines. This also assists in illustrating the relative height of WTGs of 200m to blade tip as they would appear in some views.
- 1485 In accordance with SNH (2012) guidance, Scoping stage wind farms are not generally included within cumulative assessments unless they are of specific relevance to the outcome, which is not the case here for the other scoping stage onshore wind farms as they are located at a distance of around or over 40 km from the AyM array area.



- 1486 Onshore wind farm development in England is otherwise operational and therefore included as part of the baseline SLV resource. It is also unlikely to be a material addition to the cumulative context for AyM OWF due to its location beyond the intervening OWFs in the Irish Sea.
- The deployment of onshore wind farm development in Wales has evolved in and around clusters where planning policy has been more favourable compared to other parts of Wales. Figure 1 (Annex 10.5) shows that there are two clusters of onshore wind farm development within the study area; one in the north of the Isle of Anglesey and the other to the east of SNP in Conwy and Denbighshire that corresponds with the Area A in Welsh Assembly Government (2005) Planning Policy Wales Technical Advice Note 8: Planning for Renewable Energy (TAN 8). The onshore wind farm clusters are located at over 30 km from the AyM array area. Figures 26 and 27 (Annex 10.5) show the AyM MDS A ZTV with combined ZTVs for the onshore wind farm clusters in IoA and Conwy and Denbighshire respectively.
- 1488 The majority of the wind farms within these clusters are operational and therefore included as part of the baseline SLV resource.
- 1489 Some of these have consents for repowering with larger WTGs and there are some relatively small-scale additions to these clusters. There are also some outlier WTGs, which are single or pairs of WTGs that have consent or are in the planning stage.
- 1490 In the north of IoA, consent has been granted for the repowering of the Rhyd y Groes WTGs which may result in the operational WTGs of 47.5m to blade tip being replaced by WTGs of 66-79m. Also, in the north Anglesey cluster in the vicinity of the operational Rhyd y Groes wind farm a single WTG of 72m to tip (Tai Hen 2) has also been consented.
- 1491 In the loose cluster of onshore wind farms shown to the east of SNP in Figure 1 the majority are operational. Changes that may arise within this area are that:
  - Consent has been granted for the repowering of Hafotty Ucha wind farm which may result in the replacement of the four 61-81m WTGs with four 86.5m WTGs.
  - Camgwll Dau 2 single turbine has been consented at 136.5m to bladed tip.



- Pant y Maen has consent for seven WTGs of 102m to blade tip just to the north west of the existing Brenig wind farm.
- The Bodrach single turbine has been consented at 61m to blade tip to the north of the existing Moel Maelogen.
- 1492 It is considered that these likely additions to the operational onshore wind farm clusters within the IoA onshore wind farm cluster and the loose cluster to the east of SNP will have a minimal influence on the cumulative context for AyM OWF. The consented onshore wind farms would not materially contribute to a likely significant cumulative effect as a result of the addition of AyM OWF. The main cumulative interaction that arises is through the existence of the onshore wind farms in another part of the view, which is already the case in relation to the operational wind farms.

## Onshore Wind Farms (Tier 2 development)

- 1493 A further possible addition to the onshore cumulative wind farm context to which the AyM OWF may be added is the (Tier 2) Alwen Forest scoping stage wind farm. It is located to the west of Clocaenog Forest and has been scoped for nine turbines of 200m to blade tip. At this larger scale it would be likely to have a wider influence than the smaller scale operational onshore wind farms in the vicinity. Its proximity to the SNP is likely to influence views east from high points and the lower foothills on the east side of the SNP. However, it will be seen with a very separate part of upland landscape from the SNP, located beyond the Conwy valley and an area of settled agricultural land.
- 1494 The addition of the AyM OWF to a context that contains the operational, consented and scoping stage Alwen Forest onshore wind farms would occur within a very different part of the Study Area and views. There would be some additional cumulative effect in this context but this would be *minor* (Non-significant).

## Onshore Wind Farms (Tier 3 development)

1495 To the east of SNP in Conwy and Denbighshire there are two areas that are identified in Future Wales The National Plan 2040 Policy 17 as PAWE. These are shown on Figure 1 (Annex 10.5).



- 1496 PAWE Area 1 is located on an area of hill land at a maximum elevation of around 300m AOD. Importantly for this assessment this area extends north to within a 2-3 km of the coast between Old Colwyn and Llandulas. Currently there is only a single turbine consented within this area Bodrach at 61m to blade tip.
- 1497 PAWE Area 2 includes the area identified in 2005 in TAN 8 as a Strategic Search Area for wind power proposals. It is notable that whilst such policy has existed in relation this area of land for over 16 years very few wind farms are actually operational within it.
- 1498 It is important to note the uncertainty associated with the potential onshore wind farm development within the PAWE areas (geographical extent and location of WTGs as well as their height and number). There is no actual development to consider in the cumulative assessment of AyM other than that considered previously.
- 1499 Following a review of the information available at this time it has been determined that policy areas such as this are considered to have Tier 3 level of certainty within the Planning Inspectorate Advice Note Seventeen and as such, no assessment is included within this Chapter. Where onshore wind farm developments do come forward within the PAWE areas the applications would have to include AyM within their cumulative SLVIAs.

## Other forms of Development

- 1500 The long list of other forms of development has been reviewed to inform this SLVIA. (Appendix A of Volume 1, Annex 3.1: Cumulative Effects Assessment.) The key interactions with other offshore and coastal development are in relation to offshore oil and gas installations. Those lying within the study area are operational and therefore included as part of the baseline SLV resource. The key interaction with AyM OWF is with the Douglas oil and gas platform complex located just north of GyM OWF.
- 1501 Stakeholders suggested a number of other developments that should be considered as follows:
  - Wylfa Newydd Nuclear Power Station the application has been withdrawn;



- The Holyhead Port Expansion will occur within the immediate context of the large port development and at a range of over 50 km from the AyM array area (Figure 1) will have very limited interaction with it;
- Holyhead Deep is an area identified and with consent for lowvelocity tidal devices, which are deployed below the sea surface. They require some sea surface installations and grid connections, however these are unlikely to have a far-reaching influence given their low height above sea level and distance from the coast. The identified area is shown on Figure 1 and lies at a distance of over 60 km from the AyM array area and occurring beyond and in the context of the developed coast around Holyhead, which is just visible in Viewpoint 43: Mynydd y Garn. Whilst additional electrical infrastructure may have a further reaching influence on the Isle of Anglesey the main cumulative interaction with AyM OWF arises through the incidence of further development in the seascape. However, given the likely low levels of visual influence of the tidal devices and associated infrastructure this development is not considered to materially alter the cumulative context for AyM OWF.
- Morlais West Anglesey Demonstration Zone will provide a area for the installation and consented demonstration of multiple arrays of tidal energy devices with associated electrical infrastructure connections to the grid. Tidal devices out at sea tend to be structures below or risina just above sea surface level rather than having a wide visual influence. Study Areas for the assessment of the effects of such development tend to be relatively small (15 km radius in this instance) due to the generally localised effects that occur. The location of this Zone is beyond the boundary of the study area at a range of over 55 km from the AyM array area and occurring beyond and in the context of the developed coast around Holyhead. Whilst additional electrical infrastructure may have a further reaching influence on the Isle of Analesey the main cumulative interaction with AyM OWF arises through the incidence of further development in the seascape along another part of the Anglesey coast.



- 1502 The Morlais Demonstration Zone (MDZ) is shown in Figure 1. It is a relatively large area (35 km²) off the north-west coast of Anglesey. There may be visibility of low-level tidal devices and activity (vessels) within the MDZ that are visible from coastal visual receptors and within the western coastal areas of the Isle of Anglesey AONB. In addition, there may also be localised visibility of the landfall and onshore substation. The SLVIA for the development (Mentor Môn, 2019) has assessed significant visual effects on receptors within a maximum distance of 4 km from the MDZ. Localised significant effects have also been assessed as arising on the Holyhead Mountain and Rhoscolyn SCAs whilst no significant effects on landscape character have been assessed. Such effects may be experienced by residents and people on the Wales Coast Path/Isle of Anglesey Coastal Path, whilst undertaking offshore recreational activities, visiting the coastal area of Holy Island to the west of Holyhead or some of the high points further inland. Notably the high points would have visibility of a wide range of development on the land as well as the devices out at sea.
- 1503 The visual and seascape effects assessed as being significant and adverse also coincide with areas of the Isle of Anglesey AONB and Heritage Coast. Such effects, whilst being acknowledged as inconsistent with the policy objectives that seek to enhance the AONB, were considered acceptable by the Inspector and Welsh Ministers through their consenting of the project.
- 1504 It has been assessed that the AyM OWF would give rise to significant effects on the eastern coastal areas of the Isle of Anglesey AONB between Penmon Point and Beaumaris. The MDS would give rise to localised effects on the SLV resource approximately 25 km away from areas that are affected by AyM OWF in this way and over 57 km from the AyM array area. Walkers on the Wales Coast Path would gain visibility of both developments in sequence were they to walk between Penrhyn Mawr and North Stack, along the west coast of Holy Island, in western Anglesey and then along its eastern coast. Along the route and through the AONB they would experience a diverse range of landscapes, which include development such as masts, wind farms, bridges, towns, road infrastructure, lighthouses and the Wylfa nuclear power station.



1505 Whilst there would be a cumulative effect as a result of this further change in character of the AONB through visibility of development within the seascape as part of its setting it is assessed that the cumulative magnitude of change would be **low** and the cumulative effect on the Medium-high to High sensitivity AONB/Wales Coast Path **Moderate (Nonsignificant)** in the context of this cumulative interaction.

## Other types of cumulative effect

- 1506 For the reasons described above, the cumulative effects of AyM OWF (beyond those that occur in relation to operational/ existing development and included in the main SLVIA text) are likely to be limited and as described below:
  - 'Whole project' effects resulting from the combined effects of the onshore and offshore elements of AyM are assessed in Section 10.14 and in Volume 2, Chapter 14: Inter-related Effects.

## 10.14 Inter-relationships

#### 10.14.1 Introduction

1507 Table 18 sets out the inter-relationships between this chapter and the other chapters within the ES.

Table 18: Inter-relationships between the SLVIA and other chapters within the PEIR.

TOPIC / CHAPTER	WHERE ADDRESSED IN THE SLVIA	RATIONALE
Volume 3, Chapter 2: Landscape and Visual Impact Assessment	Section 10.14	Both chapters consider the potential effects of AyM on landscape and visual receptors.  Chapter 2 considers the effects of the onshore elements of AyM on these receptors whilst this SLVIA chapter considers the effects of the offshore elements of AyM.



TOPIC / CHAPTER	WHERE ADDRESSED IN THE SLVIA	RATIONALE
Volume 3, Chapter 8: Onshore Archaeology	(Volume 6, Annexes 10.5 and 10.6)	The visualisations and figures associated with the SLVIA (Volume 6, Annexes 10.4 and 10.6) are also used to support the assessment in Chapter 8.
and Cultural Heritage	Section 10.11	Both chapters consider the potential effects of the visibility of offshore elements of AyM on onshore landscape and visual receptors. The SLVIA considers this in terms of the effects on visual amenity and landscape character whilst Chapter 8 considers visibility of the offshore elements of AyM in relation to the settings of the cultural heritage assets.  Registered Historic Parks and Gardens and World Heritage Sites are referenced
		in the SLVIA where they are relevant to the value or view. The impact on these receptors is assessed in Chapter 8.
Volume 3, Chapter 4: Tourism and Recreation	(Volume 6, Annexes 10.4 and 10.6)	The visualisations and figures associated with the SLVIA (Volume 6, Annexes 10.5 and 10.6) are also used to support the assessment in Chapter 4.
	Section 10.11	Both chapters consider the potential effects of the offshore elements of AyM on the visual amenity of recreational users in the local area.



# 10.14.2 Inter-relationship with landscape and visual effects of onshore elements of AyM.

- 1508 The inter-relationship between the SLV effects of the offshore elements of AyM and the landscape and visual effects of the onshore elements of AyM occurs where landscape and visual receptors may be materially impacted through visibility of both parts of the project.
- 1509 The offshore elements of AyM only affect landscape receptors through visibility as part of the setting which may affect landscape character, however the onshore elements of AyM also affect the landscape physically, which in turn may affect landscape character.
- 1510 The landscape character and visual effects of the onshore elements of AyM are relatively localised whilst the effects of the offshore elements of AyM are more widespread. The areas where there is a strong interrelationship between these effects occurs only where they coincide to affect the same receptors.
- 1511 The effects on landscape and visual receptors as a result of the onshore elements of AyM occur locally in the immediate vicinity of the proposed Onshore Export Cable Corridor (ECC). The Onshore ECC is underground so that its effects occur largely during construction. The landfall and northerly section of the Onshore ECC run between Rhyl and Prestatyn. Thereafter, the route moves west and extends further inland to the west of Rhuddlan as shown on Figure 2.1 (Volume 6, Annex 2.2). More widespread construction, operation and decommissioning effects are reported in relation to the larger scale substation in LVIA Chapter 2, Sections 2.10-2.12.



- 1512 The SLVIA does not assess the effects of the offshore ECC as it was agreed that there are no likely significant effects as a result of this and therefore it could be scoped out (see Volume 4, Annex 10.2: SLVIA Summary of Consultation; application ref: 6.4.10.2)). In the vicinity of Rhyl and Prestatyn the SLV construction, operational and decommissioning effects of the offshore elements of AyM are assessed as being of low magnitude and are very much associated with visibility from the coast. Visibility of the offshore elements of AyM from areas inland are limited by intervening screening by vegetation and built form. Effects of the offshore elements of AyM on landscape character in the vicinity of the Onshore ECC and proposed substation are assessed in Volume 4, Annex 10.2 as having no potential to be **significant**.
- 1513 Therefore, the only receptors where there may be material effects as a result of both onshore and offshore elements of AyM are along the coast in the vicinity of the onshore ECC where it will be visible at close range during construction whilst there are also views out to sea where the offshore Elements of AyM are also visible during construction.
- The coastal visual receptors at this location are users of the beach, the Wales Coast Path and the adjacent Rhyl Golf Course. Effects on users of the WCP and golf course are assessed in Table 14 of Chapter 2 as being of medium-high and medium sensitivity to the construction of the proposed onshore ECC respectively. The magnitude of change is assessed as medium-high in the views obtained by people in these locations due largely to the proposed option for the siting of an (Horizontal Directional Drilling) HDD compound on the golf course near to the WCP. The effect during construction is assessed as *significant*, adverse, short-term and reversible within the parts of the WCP localised to the approximately 200m east and west of the preferred 40m cable route and from within localised parts of the course closest to the Onshore ECC and landfall.



- 1515 Views of the offshore elements of AyM under construction would occur in views from a short section WCP Section P Pensarn to Prestatyn (as assessed in Section1232). Similar effects would occur in views from the beach and from the edge of the adjacent Rhyl Golf Course. The offshore elements of AyM are assessed as low along this section of the WCP with reference to the assessments of nearby Viewpoints 23: Rhyl Aquarium and Viewpoint 25: Prestatyn Nova Centre in Table 12 and as illustrated in Annex 10.6. These viewpoints show that the construction of the offshore elements of AyM would occur beyond and between the operational OWFs in views from these locations.
- 1516 The indicative programme shows that the onshore ECC construction works (which may include the landfall HDD) and the installation of the WTGs, which is likely to give rise to the most substantial inter-related effects on these receptors may occur during a period of six months of the overall construction period.
- 1517 It is assessed that the magnitude of change on the coastal receptors of the beach, WCP and Rhyl Golf Course would increase only slightly from the medium-high magnitude of change assessed locally in relation to the onshore ECC construction alone and would remain at a medium-high magnitude. No further significant effects are assessed as a result of the short-term (maximum six months) inter-related effects of the construction of the onshore and offshore elements of AyM at this location.

## 10.15 Transboundary effects

1518 No significant transboundary seascape, landscape and visual effects are likely to arise.

## 10.16 Examples of existing permitted projects

1519 NPS EN-1 (draft) suggests at paragraph 5.10.21 that it may be helpful for applicants to draw attention to examples of existing permitted infrastructure they are aware of with similar magnitude of impact on sensitive receptors.



- 1520 Table 19 provides an overview of development that has been permitted close to AONBs, National Scenic Areas (Scotland) and National Parks elsewhere within the United Kingdom and the distances between the development and the nationally designated landscape. Whilst other receptors may be considered sensitive e.g. people living in settlements or using long distance paths, it is considered that nationally designated landscapes provide the most relevant gauge of development affecting sensitive receptors for this SLVIA.
- 1521 Due to the larger scale of the AyM WTGs compared to existing OWFs only those operational OWFs within a range of 15 km of the nationally designated landscapes are included.

Table 19: Examples of existing permitted large scale development projects and their proximity to national landscape planning designations.

PROJECT	DISTANCE FROM NATIONALLY DESIGNATED LANDSCAPE	SCALE OF DEVELOPMENT
Scroby Sands OWF	3.1 km - Norfolk Coast AONB 8 km – The Broads National Park	WTGs 108 m
North Hoyle OWF	8.7 km – Clwydian Range and Dee Valley AONB	WTGs 120 m
Ormonde	12.6 km - Lake District National Park	WTGs 163 m
Rampion OWF	14.4 km – South Downs National Park	WTGs 140 m
Rhyl Flats OWF	14.8 km – Clwydian Range and Dee Valley AONB 22.7 km Anglesey AONB	WTG 128 m
Burbo Bank Extension OWF	14.6 km – Clwydian Range and Dee Valley AONB	WTGs 187 m
Glenkerie Onshore WF	2 km - Upper Tweeddale NSA	WTGs 105 - 120m



PROJECT	DISTANCE FROM NATIONALLY DESIGNATED LANDSCAPE	SCALE OF DEVELOPMENT
Dorenell Onshore Wind Farm (WF)	2.4 km – Cairngorms National Park	WTGs 126 m
Stronelairg Onshore WF	3.1 km - Cairngorms National Park	WTGs 110 – 135 m
Kildrummy Onshore WF	3.17 km - Cairngorms National Park	WTGs 93 m
Tom nan Clach Onshore WF	5.4 km – Cairngorms National Park	WTGs 125 m
Paul's Hill 1 Onshore WF	5.66 km - Cairngorms National Park	WTGs 99.5 m
Berry Burn Onshore WF	6.67 km - Cairngorms National Park	WTGs 100 m
Clashindarroch Onshore WF	9.3 km - Cairngorms National Park	WTGs 110 m
Wylfa Nuclear Power Station	0.2 km – Isle of Anglesey AONB	Large scale forms and site area.
Sizewell A and B Nuclear Power Stations	0 km – lie within the Suffolk Coast and Heaths AONB	Large scale forms and site area.

# 10.17 Summary of effects

1522 The SLVIA identifies and assesses the significance of changes resulting from the construction, operation and decommissioning of the offshore elements of AyM within the array area and the 'Other Wind Farm Infrastructure Zone', which contains the Met Mast. This is carried out in relation to both the seascape character and landscape character as environmental resources in their own right, and on people's views and visual amenity. The construction, operation and decommissioning of the offshore cable route has been scoped out of the SLVIA.



- 1523 Consultation with regards to SLVIA has been undertaken via an Expert Topic Group, with numerous meetings held between December 2019 (pre-scoping) and January 2022 with representatives from NRW, Cadw, SNP and the various local planning authorities in attendance. Public consultation was also undertaken online.
- 1524 Publication of the AyM OWF Scoping Report and the Section 42 consultation process also provided opportunities for feedback which have been considered in preparing the ES.
- 1525 The SLVIA is based on the Rochdale Envelope described in Volume 2, Chapter 1: Offshore Project Description and as set out in Table 3 of this chapter. In compliance with EIA regulations and in accordance with the Rochdale Envelope approach to assessment, the likely **significant** effects of a realistic 'maximum design scenario' (MDS) are assessed and illustrated in the SLVIA.
- 1526 The MDS A used in the main assessment is the 34 x 332m to tip WTG layout, as shown in Figure 2a. This layout has the highest wind turbine blade tip height (332m), with largest rotor diameter (306m) with WTGs occupying locations that represent the impacts arising from the full extent of the wind farm Area of Search in a grid arrangement with north to south running rows.
- 1527 A design scenario that includes the maximum number of WTGs (MDS B) is also visualised and assessed for key viewpoints as requested by PINS and the scope of the assessment agreed with Stakeholders. The key viewpoints are listed in Table 20. The MDS B is the maximum number of the smallest WTGs being considered by the Applicant. This is the 50 x 282 m to tip WTG layout as shown in Figure 2b.
- 1528 The effect that results from the additional turbines of smaller size (282m WTGs) in the MDS B is considered to be outweighed by the larger height and scale of the 332m WTGs and it is therefore MDS A that informs the main assessment of seascape, landscape and visual effects. This was agreed with Stakeholders.



- 1529 The reduction in the AyM array area that has been included as mitigation of seascape, landscape and visual effects contributes to a lowering of the magnitude of change across parts of the IoA AONB and SNP as well as the numerous settlements and the Wales Coast Path that are located around the North Wales coast.
- 1530 The effect of the construction, operation and decommissioning of the offshore elements of AyM has been assessed as *Minor (Non-significant)* on all seascape, landscape and visual receptors within England and the English Marine Plan Areas. In addition, there will be *no significant effects* on the seascape, landscape and visual resource of Flintshire, Denbighshire or the Clwyddian Range and Dee Valley AONB.
- 1531 Significant seascape, landscape and visual effects of the offshore elements of AyM are contained within the areas of the IoA, Gwynedd, SNP, and Conwy.
- 1532 The levels of magnitude of change assessed during the early stages of construction and the latter stages of decommissioning are lower than those assessed for the latter stages of construction and the early stages of decommissioning due the changes occurring largely below the sea surface over these stages. These effects are adverse, short term and temporary.
- 1533 The levels of effect during the latter stages of construction and the early stages of decommissioning are akin to those that will occur during of the operational stage. For simplicity the effects described here relate to the operational effects of the offshore elements of AyM which are adverse, long term and reversible.
- 1534 There would be direct changes to the elements and patterns of the seascape areas within which the AyM array area is located. These areas are identified as SCA F North Wales Open Waters and SCA 28 Northeast of Anglesey. The effect on SCA F would be **non-significant** and the effect on the eastern part of SCA 28, in and around the AyM array area and southwards towards the Great Orme and Penmon Point would be **significant** but **non-significant** elsewhere within the SCA.



1535 Due to the offshore nature of AyM array area there are no direct changes to the inherent characterising elements and patterns of the other seascape receptors or the landscape receptors. All changes to these seascape and landscape receptors occur entirely as a result of views of the offshore elements of AyM as part of their wider context, within which there are often many character-influencing features.

### 10.17.1 Isle of Anglesey

- 1536 The assessment of representative viewpoints has found there would be *significant* visual effects at viewpoints on or close to the east coast of Anglesey along sections of the coast including: VP 4: Moelfre Headland at sculpture (Daytime); VP5: Red Wharf Bay; VP6: Bwrdd Arthur north of trig point; VP 7: Penmon Point north-east of parking; VP 8: Beaumaris Wales Coast Path; VP 14: Wales Coast Path near Penrhyn (Traeth yr Ora); VP 16: Benlech Bay View Road; and VP 28: Trwyn y Penrhyn parking layby.
- 1537 Some limited *significant* effects on views from properties within the settlement areas of Moelfre and Benllech have been identified. Effects on the views gained by people using the Wales Coast Path have found to be *significant* along Sections C, D, E and F which covers the route between Point Lynas at the north-east corner of Anglesey to Beaumaris which is a total distance of 49 km (approximately 23% of the route round Isle of Anglesey). Such effects would mainly occur when moving south/east along the path.
- 1538 **Significant** effects on landscape character have been assessed as occurring along a coastal strip of up to approximately 1 km along the sections of the coast within the IoA LCA 8: Dulas Bay Hinterland; IoA LCA 9: Red between Moelfre headland and Benllech and south of Benllech and round Red Wharfe Bay to a point level with Ty-mawr north of Pentraeth Forest; IoA LCA 10: Penmon and Puffin Island northerly exposed areas of the LCA; and IoA LCA 11: Eastern Menai Strait in the north-easterly exposed areas to the north of Beaumaris and south of Viewpoint 28 Trwyn y Penrhyn parking layby. These areas lie within the IoA AONB.



- 1539 **Significant** effects on seascape character have been identified for parts of: SCA 3: Traeth Lafan; SCA 5: Penmon; SCA 6: Red Wharf Bay to Moelfre; and SCA 7: Dulas Bay.
- 1540 Effects on three Special Qualities of the IoA AONB have been assessed. These are: Expansive Views; Peace and Tranquillity; and Islands around Anglesey. Some **significant** effects have been found to occur on each of these Special Qualities although it should be noted that such effects would occur within relatively limited parts of the AONB.

#### 10.17.2 Gwynedd

- 1541 The assessment of representative viewpoints has found there would be **significant** visual effects at VP 9: Bangor Pier (Southern End) and VP 17: Penrhyn Castle Terrace.
- No significant effects on views from within settlement areas have been assessed. Effects on the views gained by people using the Wales Coast Path have found to be significant along an 8 km stretch of WCP Section H, which covers the route between Bangor and Llanfairfechan in Conwy. Such effects would mainly occur when moving north-east along the path.
- 1543 **Significant** effects on landscape character have been assessed as occurring across the coastal edge of LCA G01 Bangor Coastal Plain to the north-east of Bangor.
- 1544 **Significant** effects on seascape character have been assessed for part of: SCA 3: Traeth Lafan, which bounds the coast of Gwynedd as well as IoA.

#### 10.17.3 Snowdonia National Park

1545 The assessment of representative viewpoints has found there would be **significant** visual effects at viewpoints within the northerly edge hills of SNP at VP 12: Conwy Mountain and VP 40: Above Capelulo – North Wales Path.



- No significant effects on views from within settlement areas have been assessed. Effects on the views gained by people using the Wales Coast Path have found to be significant from parts of Section i: Conwy Mountain. This is likely to occur along a combined length of approximately 3 km across the side slopes of Foel Lus and along the ridge of Conwy Mountain.
- 1547 **Non-significant effects** on landscape character have been assessed for SNP LCA 01: Northern Uplands and SNP LCA 2: SNP LCA 02: Carneddau Range.
- 1548 **Significant effects** on seascape character have been assessed for parts of SCA 3: Traeth Lafan and SCA 2: Conwy Bay which form the setting for the northern coast of SNP.
- 1549 Effects on two Special Qualities of the SNP have been assessed. These are: Tranquillity & solitude Peaceful Areas and Diverse Landscapes. Whilst some **significant** visual effects have been found to occur within viewpoints within SNP, however it has been assessed that the effects on the Special Qualities would **not be significant**.

## 10.17.4 Conwy

- 1550 The assessment of representative viewpoints has found there would be significant visual effects at viewpoints: VP 11: Llanfairfechan; VP 12: Conwy Mountain; VP 13: Great Orme near summit complex; VP 15: Great Orme Café; VP 18: Llandudno paddling pool; VP 20: Bryn Euryn; VP 21: Mynydd Marian; 29: Colwyn Bay promenade; VP 37: Cefn Coch Stone Circle; and VP 59: Llandundo promenade lifeboat slipway.
- 1551 **Significant effects** on views from within settlement areas as occurring in limited parts of: Llanfairfechan; Penmaenmawr; Dwygfylchi; Llandudno; Penrhyn Bay; Rhos-on-Sea, Colwyn Bay and Llandulas.
- 1552 Effects on the views gained by people using the Wales Coast Path have found to be **significant** along Section J; Section K along 0.8 km section at north-western extent of Great Orme; along Section L; Section M for 2.7 km in total; Section N for 3.5 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point; and Section O for a 5 km section to the east of Colwyn Bay.



- Along the section of NCR 5 that runs through Conwy there would be significant, adverse, long term, reversible effects for a 0.5 km section along Llandudno Bay, for a 2 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point and along Colwyn Bay to 0.5 km west of Llandulas. Significant effects on landscape character have been assessed as occurring Conwy/ Denbighshire LCA C10: Great Orme and Creuddyn Peninsula at the coastal edge between Great Orme and Little Orme and from elevated locations on the Great Orme (extending inland from the north by approximately 1 km) and the north face of Little Orme.
- 1554 **Significant effects** on seascape character have been assessed for parts of SCA 2: Conwy Bay; SCA A., SCA B; and SCA C.
- 1555 **Significant effects** on landscape character and seascape character that are coincidental with the Great Orme Heritage Coast have been assessed at the coastal edge between the north-west point of Great Orme and the toll booth and from elevated locations on the Great Orme (extending inland from the north by approximately 1 km) and the north face of Little Orme.

### 10.17.5 Visual effect of the MDS B on selected key viewpoints

1556 The same viewpoints that have been assessed as having significant daytime and night-time visual effects, as a result of MDS A, have been assessed as being significant for the MDS B. There are considered to be reductions in the magnitude of change for some views as a result of the smaller WTG scale in comparison to existing landscape features and the WTGs of the operational OWFs. However, the number of WTGs and the extent of the horizontal field of view of MDS B means that MDS B does not give rise to a lower magnitude of change compared to MDS A.

## 10.17.6 Night-time effects

1557 Four night-time viewpoints have been assessed to represent views of the MDS A and MDS B lighting from a variety of locations within the study area. This has found significant night-time visual effects at VP 13: Great Orme - near summit complex.



- 1558 The assessment of night-time effects has used baseline night light mapping and aviation lighting ZTVs as well as these representative viewpoints to inform the assessment of night-time effects over the wider study area with particular reference to the effects on Snowdonia Dark Skies Reserve and in the IoA AONB where dark skies are considered to be a component of the defined Special Qualities.
- The findings are that *significant*, adverse, long term and reversible night-time visual effects may arise within the IoA AONB in the vicinity of the coastal locations around Point Lynas (Viewpoint 2; Moelfe Headland (Viewpoint 4); The beach and parking areas around Traeth Lligwy to the north-east of Rhôs Lligwy; Traeth Bychan and Penrhyn; Red Wharf Bay (Viewpoint 5); Penmon Point (Viewpoint 7); and Trwyn y Pnrhyn parking (Viewpoint 28). In addition, there may be *significant*, adverse, long term, reversible night-time effects in Conwy from the summit and north-eastern parts of the Great Orme. These significant effects would arise for both the MDS A and MDS B lighting scenarios.

#### 10.17.7 Cumulative effects

1560 It has been assessed that there would be no cumulative effects as a result of the addition of AyM to a context containing operational, under construction, consented, application or scoping stage cumulative development.



Table 20: Summary of effects (MDS A).

IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
Direct impacts on Sea	scape characte	r				
SCA F - North Wales Open Waters	Medium-low	Low to Medium-low	Fewer WTGs proposed within it.	Minor (Non-significant),	Moderate-Minor (Non- significant)	Moderate-Minor (Non-significant),
SCA 28 - North-east of Anglesey	Medium increasing to Medium-High closer to the coast	Low to Medium	Array area has been reduced within this SCA. Fewer WTGs proposed within it.	Minor (Non-significant)	Moderate (Significant), in the eastern part of the SCA in and around the AyM array area and southwards towards the Great Orme and Puffin Island.  Moderate-Minor (Nonsignificant), elsewhere within the SCA.	Moderate (Significant) in the eastern part of the SCA in and around the AyM array area and southwards towards the Great Orme and Puffin Island.  Moderate-Minor (Nonsignificant), elsewhere within the SCA.
Impacts resulting from	visibility of the A	yM OWF within the sea	scape			
VP1: Bull Bay near Amlwch – Wales Coast Path	High	Negligible to Low	Array area reduced in size increasing the separation distance from this VP.	Minor (Non-significant),	Moderate-Minor (Non- significant)	Moderate-Minor (Non- significant)
VP2: Point Lynas - PRoW to north of lighthouse	High	Negligible to Low	Array area reduced in size increasing the separation distance from this VP.	Minor (Non-significant),	Moderate-Minor (Non- significant)	Moderate-Minor (Non-significant)
VP3: Mynydd Eilian - near trig point	Medium-high	Negligible to Low	Array area reduced in size increasing the separation distance from this VP.	Minor (Non-significant),	Moderate-Minor (Non- significant)	Moderate-Minor (Non-significant)



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
VP 4: Moelfre Headland at sculpture (Daytime)	High	Negligible to Medium-low	Array area reduced in size increasing the separation distance from this VP.	Minor (Non-significant),	Moderate (Significant)	Moderate (Significant)
VP 4: Moelfre Headland at sculpture (Night-time)	Medium-high	Negligible	Array area reduced in size increasing the separation distance and the Horizontal FoV from this VP.	NA	Minor (Non-significant),	Minor (Non-significant),
VP5: Red Wharf Bay	High	Negligible to Medium-low	Array area reduced in size increasing the separation distance and reducing the Horizontal FoV from this VP	Minor (Non-significant),	Moderate (Significant)	Moderate (Significant)
VP6: Bwrdd Arthur - north of trig point	High	Negligible to Medium	Array area reduced in size increasing the separation distance and reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)
VP 7: Penmon Point - north-east of parking	High	Low to Medium	Array area reduced in size reducing the Horizontal FoV from this VP	Moderate-Minor (Non- significant),	Major-Moderate (Significant)	Major-Moderate (Significant)
VP 8: Beaumaris - Wales Coast Path	High	Negligible to Medium	Density of WTGs reduced across the array area.	Minor (Non-significant)	Major-Moderate (Significant)	Major-Moderate (Significant)



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
VP 9: Bangor Pier (Southern End)	Medium-high	Negligible to Medium-low	Density of WTGs reduced across the array area.	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)
VP 10: Carnedd Llewelyn	High	Negligible to Medium-low	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)
VP 11: Llanfairfechan	Medium-high	Negligible to Medium	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)
VP 12: Conwy Mountain	Medium-high	Negligible to Medium	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Major-Moderate (Significant)	Major-Moderate (Significant)
VP 13: Great Orme - near summit complex	Medium-high	Low to Medium-high	Array area reduced in size reducing the Horizontal FoV from this VP	Moderate-Minor effect (Non-significant)	Major-Moderate (Significant)	Major-Moderate (Significant)
VP 13: Great Orme - near summit complex (Night-time)	Medium-high	Medium-low (operation)	Array area reduced in size reducing the Horizontal FoV from this VP	NA	Moderate (Significant)	Moderate (Significant)
VP 14: Wales Coast Path near Penrhyn (Traeth yr Ora)	High	Negligible to Medium-low	Array area reduced in size increasing the separation distance and reducing the	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
			Horizontal FoV from this VP			
VP 15: Great Orme - Cafe	Medium-high	Low to Medium-high	Array area reduced in size reducing the Horizontal FoV from this VP	Moderate-Minor (Non- significant)	Moderate-Major (Significant)	Moderate-Major (Significant)
VP 16: Benlech Bay View Road	High	Negligible to Medium-low	Array area reduced in size increasing the separation distance and reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)
VP 17: Penrhyn Castle terrace	Medium-high	Negligible to Medium-low	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)
VP 18: Llandudno paddling pool	Medium-high	Low to Medium-high	Array area reduced in size reducing the Horizontal FoV from this VP	Moderate-Minor (Non- significant)	Moderate-Major (Significant)	Moderate-Major (Significant)
VP 20: Bryn Euryn	Medium-high	Low to Medium	Array area reduced in size reducing the Horizontal FoV from this VP	Moderate-Minor (Non- significant)	Moderate (Significant)	Moderate (Significant)
VP 21: Mynydd Mariar	Medium-high	Negligible to Medium	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
VP 22: Abergele promenade	Medium-high	Negligible to Medium-low	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate (Non-significant)	Moderate (Non- significant)
VP 22: Abergele promenade (Night- time)	Medium	Low (operation)	Array area reduced in size reducing the Horizontal FoV from this VP	NA	Moderate-Minor (Non- significant)	Moderate-Minor (Non- significant)
VP 23: Rhyl Aquarium	Medium-high	Negligible to Low	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate-Minor (Non- significant)	Moderate-Minor (Non- significant)
VP 24: Graig Fawr	High	Negligible to Low	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate-Minor (Non- significant)	Moderate-Minor (Non- significant)
VP 25: Prestatyn Nova Centre	Medium-high	Negligible to Low	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate-Minor (Non- significant)	Moderate-Minor (Non- significant)
VP 27: Point of Ayr	Medium-high	Negligible to Low	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate-Minor (Non-significant)	Moderate-Minor (Non-significant)
VP 28: Trwyn y Penrhyn parking layby	Medium-high	Negligible to Medium	No change	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
VP 29: Colwyn Bay promenade	Medium-high	Negligible to Medium-high	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate-Major (Significant)	Moderate-Major (Significant)
VP 30: Snowdon (Yr Wyddfa) summit	High	Negligible to Low	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Minor (Non-significant)	Minor (Non-significant)
VP 36: Tal y Fan	Medium-high	Negligible to Medium-low	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate (Non-significant)	Moderate (Non- significant)
VP 37: Cefn Coch Stone Circle	Medium-high	Negligible to Medium-low	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)
VP 38: Foel Fras	High	Medium-low	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)
VP 40: Above Capelulo – North Wales Path	High	Negligible to Medium	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Major-Moderate (Significant)	Major-Moderate (Significant)
VP 42: Mynydd Bodafon - Trig Point	High	Negligible to Low	Array area reduced in size increasing the separation distance and reducing the	Minor (Non-significant)	Moderate-Minor (Non-significant)	Moderate-Minor (Non- significant)



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			Horizontal FoV from this VP			
VP 44: Beaumaris Castle	Medium-high	Negligible to Medium-Low	No change	Minor (Non-significant)	Moderate (Non-significant)	Moderate (Non-significant)
VP 59: Llandundo promenade - lifeboat slipway	Medium-high	Low to Medium	No change	Moderate-Minor (Non- significant)	Moderate (Significant)	Moderate (Significant)
VP 60: Foel Lus (Night-time)	Medium	Medium-low (operation)	Array area reduced in size reducing the Horizontal FoV from this VP	NA	Moderate-Minor (Non- significant)	Moderate-Minor (Non-significant)
VP 66: Offshore - Liverpool to Dublin Ferry route north of Great Orme	Medium-low	Low to Medium-high	Array area reduced in size reducing the Horizontal FoV from this VP	Moderate-Minor (Non- significant),	Moderate (Non-significant),	Moderate (Non- significant),
VP 67: Offshore - Liverpool to Dublin Ferry route north of Conwy Bay	Medium-low	Low to Medium-high	Array area reduced in size reducing the Horizontal FoV from this VP	Moderate-Minor (Non- significant),	Moderate (Non-significant),	Moderate (Non- significant),
Amlwch	Medium	Negligible to Low	Array area reduced in size increasing the separation distance from this VP.	Minor (Non-significant)	Minor (Non-significant)	Minor (Non-significant)
Moelfre	Medium-high	Negligible to Medium-low	Array area reduced in size increasing the separation distance from this VP.	Minor (Non-significant)	Moderate-Minor (Non- significant), from the majority of properties Moderate (Significant) on views from a	Moderate-Minor (Non- significant), from the majority of properties Moderate (Significant)



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
					small number of properties along the coastal edge where they have open, undeveloped views towards the AyM array area.	on views from a small number of properties along the coastal edge where they have open, undeveloped views towards the AyM array area.
Benllech	Medium-high	Negligible to Medium-low	Array area reduced in size increasing the separation distance and reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate-Minor (Non-significant from the majority of properties. Moderate effect (Significant) on views from a small number of properties along the coastal edge where they have open, undeveloped views towards the AyM array area.	Moderate-Minor (Non-significant from the majority of properties.  Moderate effect (Significant) on views from a small number of properties along the coastal edge where they have open, undeveloped views towards the AyM array area.
Llanddona	Medium-high	Negligible to Medium-low	Array area reduced in size increasing the separation distance and reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate (Non-significant)	Moderate (Non- significant)
Beaumaris	Medium-high	Negligible to Medium-low	None	Minor (Non-significant)	Moderate or lower (Non-significant)	Moderate or lower (Non-significant)
Bangor	Medium	Negligible to Medium-low	None	Minor (Non-significant)	Moderate-Minor (Non-significant)	Moderate-Minor (Non-significant)



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
Llanfairfechan	Medium-high for seaside properties, low for those without direct views across the sea.	Negligible to Medium for seaside properties low or negligible for those without direct views across the sea.	Array area reduced in size increasing the separation distance from this VP.	Minor (Non-significant)	Moderate (Significant) for seaside properties  Minor (Non-significant) elsewhere within the settlement.	Moderate (Significant) for seaside properties  Minor (Non-significant) elsewhere within the settlement.
Penmaenmawr	Medium-high	Negligible to Medium	Array area reduced in size increasing the separation distance from this VP.	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)
Dwygfylchi	Medium-high	Negligible to Medium-low	Array area reduced in size increasing the separation distance from this VP.	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)
Llandudno	Medium-high	Negligible to Medium-high in the east of the bay and Medium reducing to no change in the west of the bay. Elsewhere in Llandudno the magnitude of change would be low or no change.	Array area reduced in size increasing the separation distance from this VP.	Minor (Non-significant)	Moderate to Moderate-Major (Significant), along the bay frontage Minor (Non- significant) elsewhere	Moderate to Moderate- Major (Significant), along the bay frontage Minor (Non-significant) elsewhere
Penrhyn Bay	Medium-high	Negligible to Medium-high along the sea front	No change	Minor (Non-significant) Non-significant elsewhere.	Moderate to Moderate-Major (Significant) along the bay frontage and from those	Moderate to Moderate- Major (Significant) along the bay frontage and



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
		properties and from those immediately inland in Penrhyn Bay. Elsewhere in Penrhyn Bay the magnitude of change would be low or no change.			immediately inland in Penrhyn Bay.  Minor (Non-significant) elsewhere.	from those immediately inland in Penrhyn Bay.  Minor (Non-significant) elsewhere.
Rhos-on-Sea	Medium-high	Negligible to Medium-high from the north facing sea front properties in Rhos-on-Sea. From the properties that gain elevated or open views of the AyM OWF from within the urban area Medium or Medium- low.	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate or Moderate-Major (Significant), along the north facing Rhos-on-Sea frontage and from the properties that gain elevated or open views of the AyM OWF from within the urban area. Minor (Nonsignificant) elsewhere.	Moderate or Moderate- Major (Significant), along the north facing Rhos- on-Sea frontage and from the properties that gain elevated or open views of the AyM OWF from within the urban area. Minor (Non- significant) elsewhere.
Colwyn Bay	Medium-high	Negligible to Medium-high from the sea facing properties along the promenades in Colwyn Bay, and from the properties that gain elevated or open views of the AyM OWF from within the urban area the magnitude of	size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate or Moderate-Major (Significant) from the sea facing properties along the promenades in Colwyn Bay and from the properties that gain elevated or open views of the AyM OWF from within the urban area of Colwyn Bay.  Minor (Non-significant) elsewhere	Moderate or Moderate- Major (Significant) from the sea facing properties along the promenades in Colwyn Bay and from the properties that gain elevated or open views of the AyM OWF from within the urban area of Colwyn Bay. Minor (Non- significant) elsewhere



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
		change would be Medium or Medium- low. Elsewhere in Colwyn Bay the magnitude of change would be lower or no change.				
Llanddulas	Medium	Negligible to Medium-low from the sea facing properties on elevated high ground. Elsewhere the magnitude of change low or negligible.	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate effect (Significant) from the properties orientated to the north over the seascape on elevated high ground. Minor (Non-significant) elsewhere.	Moderate effect (Significant) from the properties orientated to the north over the seascape on elevated high ground. Minor (Non-significant) elsewhere.
Abergele and Pensarn	Medium or low/negligible.	Negligible to Medium-low for seaside properties/ amenities, low or negligible for those without direct views across the sea.	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Moderate-Minor (Non-significant)	Moderate-Minor (Non- significant)
Towyn and Kinmel Bay	Medium or low/ negligible.	Negligible to Medium-low for seaside properties/ amenities, low or negligible for those without direct views across the sea.	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Minor (Non-significant)	Minor (Non-significant)



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Rhyl	Medium or low/negligible.	Negligible to Low for seaside properties/ amenities, low or negligible for those without direct views across the sea.	Array area reduced in size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Minor (Non-significant)	Minor (Non-significant)
Prestatyn	Medium	Negligible to Low for a limited area of seaside properties/ amenities, low or negligible for those without direct views across the sea or where visibility is across the intervening urban area.	size reducing the Horizontal FoV from this VP	Minor (Non-significant)	Minor (Non-significant)	Minor (Non-significant)
WCP: Section A Llanlleiana Head	Medium-high	Negligible to Low	Array area reduced in size increasing the separation distance from this Section	Minor (Non-significant)	Moderate-Minor (Non-significant)	Moderate-Minor (Non-significant)
WCP Section B Amlwch	Medium-high	Negligible to Low	Array area reduced in size increasing the separation distance from this Section	Minor (Non-significant)	Moderate-Minor (Non-significant)	Moderate-Minor (Non-significant)
WCP Section C Dulas Bay	High	Negligible to Medium-low	Array area reduced in size increasing the separation distance and the Horizontal FoV from this Section	Minor (Non-significant)	Moderate (Significant)	Moderate (Significant)



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
WCP Section D Moelfre	High	Negligible to Medium-low	Array area reduced in size increasing the separation distance and the Horizontal FoV from this section	Minor (Non-significant)	Moderate effect (Significant)	Moderate (Significant)
WCP Section E Red Wharf Bay/ Penmon	High	Negligible to Medium-low west of Bwrydd Arthur and Medium to the east of Bwrydd Arthur.	Array area reduced in size increasing the separation distance and reducing the Horizontal FoV from this section	Minor (Non-significant)	Moderate (Significant), west of Bwrydd Arthur and Major- Moderate effect (Significant) to the east of Bwrydd Arthur.	Moderate (Significant), west of Bwrhydd Arthur and Major-Moderate effect (Significant) to the east of Bwrydd Arthur.
WCP Section F Penmon Point	High	Negligible to Medium	Array area reduced in size reducing the Horizontal FoV from this section	Minor (Non-significant)	Major-Moderate (Significant)	Major-Moderate (Significant)
WCP Section G Menai Strait	High	Negligible to Low	None	Minor (Non-significant)	Moderate-Minor (Non-significant)	Moderate-Minor (Non-significant)
WCP Section H Lavan Sands	Medium-high	Negligible to Medium to medium-low	Array area reduced in size reducing the Horizontal FoV from this section	Minor (Non-significant)	Moderate (Significant), along the 8 km, open coastal section of the route to the east of Penrhyn Castle east to Llanfairfechan. Moderate (Nonsignificant) elsewhere along the route.	
WCP Section I Conwy Mountain	High	Negligible Medium along the 1.5 km section of the route	Array area reduced in size reducing the	Minor (Non-significant)	Major-Moderate (Significant) over a combined length of approximately 3 km across the	Major-Moderate (Significant) over a combined length of



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		at Foel Lus and Medium along the 1.5 km section at Conwy Mountain. Medium-low or no change elsewhere.	Horizontal FoV from this section		side slopes of Foel Lus and along the ridge of Conwy Mountain. <i>Moderate-minor</i> ( <i>Non-significant</i> ) along the other parts of this route.	approximately 3 km across the side slopes of Foel Lus and along the ridge of Conwy Mountain. Moderateminor (Non-significant) along the other parts of this route.
WCP Section J Conwy Bay	Medium	Negligible to Medium at Llanfairfechan reducing to Low- medium	Array area reduced in size reducing the Horizontal FoV from this section	Minor (Non-significant)	Moderate to Moderate-Minor (Non-significant)	Moderate to Moderate- Minor (Non-significant)
WCP Section K Conwy/ Creuddyn peninsula	Medium-high	Negligible to Medium for 0.8 km section at north-western extent of Great Orme. Low magnitude to no change elsewhere along the route.	Array area reduced in size reducing the Horizontal FoV from this section	Minor (Non-significant)	Moderate (Significant) adverse, long term, reversible along 0.8 km section at north-western extent of Great Orme. Minor (Non-significant) elsewhere along the route.	Moderate (Significant) adverse, long term, reversible along 0.8 km section at north-western extent of Great Orme. Minor (Non-significant) elsewhere along the route.
WCP Section L Great Orme	Medium-high	Low to Medium-high for 2.5 km section along northern edge of Great Orme. Low magnitude to no change elsewhere along the route.	Array area reduced in size reducing the Horizontal FoV from this section	Minor (Non-significant)	Moderate-Major (Significant)	Moderate-Major (Significant)
WCP Section M Llandudno	Medium-high	Low to Medium-high for 2.5 km section	Array area reduced in size reducing the	Moderate-Minor (Non-significant)	Moderate-Major effect (Significant) along 2.5 km	Moderate-Major effect (Significant) along 2.5



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		along Llandudno promenade, Colwyn Road and northern edge of Great Orme. Low magnitude to no change elsewhere along the route.	Horizontal FoV from this section		section of Llandudno promenade and 200m section of, Colwyn Road (a total of 2.7 km of this 4.5 km section) and northern edge of Great Orme.  Moderate-Minor (Non- significant) for the western 0.5 section of the route and No change Non-significant elsewhere along the route.	km section of Llandudno promenade and 200m section of, Colwyn Road (a total of 2.7 km of this 4.5 km section) and northern edge of Great Orme. Moderate-Minor (Non-significant) for the western 0.5 section of the route and No change Non-significant elsewhere along the route.
WCP Section N Penrhyn Bay	Medium-high	Low to Medium-high for 3.5 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point. Lower magnitude to no change elsewhere along the route.	No change	Moderate-Minor (Non-significant)	Moderate-Major effect (Significant) for 3.5 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point. Moderate Minor to Minor effect (Non-significant) elsewhere along the route (1.5 km primarily to the south of Little Orme and Rhos Point).	Moderate-Major effect (Significant) for 3.5 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point. Moderate Minor to Minor effect (Non-significant) elsewhere along the route (1.5 km primarily to the south of Little Orme and Rhos Point).
WCP Section O Colwyn Bay	Medium-high	Low to negligible to Medium-high for the 5 km section from Colwyn Bay to 0.5 km west of Llandulas.	size reducing the Horizontal FoV from	Moderate-Minor (Non- significant)	Moderate-Major (Significant) adverse, long term, reversible for the 5 km section from Colwyn Bay to 0.5 km west of Llandulas. Moderate	Moderate-Major (Significant) adverse, long term, reversible for the 5 km section from Colwyn Bay to 0.5 km



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		Medium to low from 0.5 km west of Llandulas to Pensarn.			(Significant), adverse, long term, reversible from 0.5 km west of Llandulas to Pensarn	west of Llandulas.  Moderate (Significant), adverse, long term, reversible from 0.5 km west of Llandulas to Pensarn
WCP Section P Pensarn to Prestatyn	Medium	Negligible to Medium-low to low at Rhyl	Array area reduced in size reducing the Horizontal FoV from this section	Minor (Non-significant)	Moderate-minor to minor (Non-significant)	Moderate-minor to minor (Non-significant)
WCP Section Q Gronant Dunes/ Point of Ayr	Medium-high	Negligible to Low	Array area reduced in size reducing the Horizontal FoV from this section	Minor (Non-significant)	Moderate-minor (Non- significant)	Moderate-minor (Non-significant)
Offa's Dyke LDR	Not assessed in detail	Not assessed in detail	Array area reduced in size reducing the Horizontal FoV from this section	Minor (Non-significant)	Moderate-minor (Non- significant)	Moderate-minor (Non-significant)
NCR 5 - IoA	Medium	Negligible to Low	Array area reduced in size increasing the separation distance and reducing the Horizontal FoV from this section	Minor (Non-significant)	Minor (Non-significant)	Minor (Non-significant)
NCR 5 - Gwynedd	Medium to low	Negligible to Medium-low or negligible	Array area reduced in size reducing the Horizontal FoV from this section	Minor (Non-significant)	Moderate-Minor (Non- significant)	Moderate-Minor (Non- significant)



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NCR 5 – Conwy	Medium to low	Low to Negligible to Medium-high for 0.5 km section along Llandudno Bay, medium-high for 2 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point and along Colwyn Bay to 0.5 km west of Llandulas. Medium to low from Llandulas to Abergele. Low from Abergele to the boundary of Conwy at the River Clwyd crossing. Lower magnitude to no change elsewhere along the route.	size reducing the Horizontal FoV from this section	Minor (Non-significant)	Moderate effect (Significant) for 0.5 km section along Llandudno Bay, for 2 km section where there are open views from along the Penrhyn and Rhos Bays and headland at Rhos Point and along Colwyn Bay to 0.5 km west of Llandulas.  Minor (Non-significant) along all other sections of NCR 5 through Conwy.	
NCR 5- Denbighshire	Not assessed in detail	Not assessed in detail	Array area reduced in size reducing the Horizontal FoV from this section	Minor (Non-significant)	Minor (Non-significant)	Minor (Non-significant)
NCR 5 - Flintshire	Not assessed in detail	Not assessed in detail	Array area reduced in size reducing the	Minor (Non-significant)	Minor (Non-significant)	Minor (Non-significant)



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			Horizontal FoV from this section			
A55, North Wales Expressway - Gwynedd	Medium to low	Medium-low or negligible	Array area reduced in size reducing the Horizontal FoV from this section	Minor (Non-significant)	Moderate-Minor (Non-significant)	Moderate-Minor (Non-significant)
A55, North Wales Expressway - Conwy	Medium to low	Medium to negligible along 7.5 km of the route from east of Llanfairfechan to east of the Penmaenbach tunnel.  Medium-low for a total of approximately 4 km of the route between the east of Colwyn Bay and Abergele.  Low to negligible magnitude of change along other parts of the A55.	size reducing the Horizontal FoV from	Minor (Non-significant)	Moderate-Minor to Minor (Non-significant) from approximately 11.5 km of the route and Minor (Non-significant) or No effect from the remainder.	Moderate-Minor to Minor (Non-significant) from approximately 11.5 km of the route and Minor (Non-significant) or No effect from the remainder.
A55, North Wales Expressway - Denbighshire	Not assessed in detail	Not assessed in detail	Array area reduced in size reducing the Horizontal FoV from this section	Minor (Non-significant)	Minor (Non-significant)	Minor (Non-significant)
A55, North Wales Expressway - Flintshire	Not assessed in detail	Not assessed in detail	Array area reduced in size reducing the	Minor (Non-significant)	Minor (Non-significant)	Minor (Non-significant)



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			Horizontal FoV from this section			
IoA LCA 6: Amlwch and Environs	Medium	Medium-low to no change	Array area reduced in size increasing the separation distance from this LCA	Minor (Non-significant)	Minor-Moderate to no change (Non-significant)	Minor-Moderate to no change (Non-significant)
IoA LCA 8: Dulas Bay Hinterland	Medium-high along the immediate coastal edge to a maximum of 1 km where there is a direct association with the seascape to the north-east and Medium elsewhere.	Negligible to Medium-low to No change	Array area reduced in size increasing the separation distance and the Horizontal FoV from this LCA	Minor (Non-significant)	Moderate effect (Significant) along the coastal edge extending to a maximum of approximately 1 km inland where there may be a direct association with the seascape to the north-east.  Moderate-Minor effect (Non- significant) elsewhere.	Moderate effect (Significant) along the coastal edge extending to a maximum of approximately 1km inland where there may be a direct association with the seascape to the north-east.  Moderate-Minor effect (Non-significant) elsewhere.
loA LCA 9: Red Wharf Bay	Medium inland Medium-high along coastal areas with a strong association with the seascape to the north-east.	Negligible to Medium-low to No change	Array area reduced in size increasing the separation distance and reducing the Horizontal FoV from this LCA	Minor (Non-significant)	Moderate effect (Significant) along the coastal edge extending to a maximum of approximately 1 km between Moelfre headland and Benllech and south of Benllech and round Red Wharfe Bay to a point level with Ty-mawr north of Pentraeth Forest where there may be a direct association	Moderate effect (Significant) along the coastal edge extending to a maximum of approximately 1 km between Moelfre headland and Benllech and south of Benllech and round Red Wharfe Bay to a point level with



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					with the seascape to the north- east. Moderate-Minor (Non- significant), elsewhere.	Ty-mawr north of Pentraeth Forest where there may be a direct association with the seascape to the north- east. Moderate-Minor (Non-significant), elsewhere.
IoA LCA 10: Penmon and Puffin Island	Medium-high	Negligible to Medium magnitude of change relates to the coastal, northerly exposed areas of the LCA, extending inland by 0.5 to 0.75 km and excluding the settled inland and former quarry area to the east. No change elsewhere.	size reducing the Horizontal FoV from this LCA	Minor (Non-significant)	Moderate effect (Significant) in the coastal, northerly exposed areas of the LCA, extending inland to a maximum of 0.5 to 0.75 km.	Moderate effect (Significant) in the coastal, northerly exposed areas of the LCA, extending inland to a maximum of 0.5 to 0.75 km.
IoA LCA 11: Eastern Menai Strait	Medium-high (Beaumaris and south- west) to high (north-east of Beaumaris)	Negligible to Medium in the coastal, northeasterly exposed areas to the north of Beaumaris and south of Viewpoint 28 – Trwyn y Penrhyn parking layby, extending inland by 0.3-0.5 km.	None	Minor (Non-significant)	Moderate-Major (Significant) in the coastal, north-easterly exposed areas to the north of Beaumaris, and south of Viewpoint 28 – Trwyn y Penrhyn parking layby, extending inland by 0.3-0.5 km.  Minor effect (Non-significant), adverse, long term, reversible elsewhere within the LCA.	Moderate-Major (Significant) in the coastal, north-easterly exposed areas to the north of Beaumaris, and south of Viewpoint 28 – Trwyn y Penrhyn parking layby, extending inland by 0.3-0.5 km.



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		Elsewhere lower to No change				Minor effect (Non-significant), adverse, long term, reversible elsewhere within the LCA.
Gwynedd LCA G01: Bangor Coastal Plain		in the coastal, north- easterly exposed areas to the north- east of Bangor extending inland by approximately 0.3-1 km to the edge of the rail line.	size increasing the separation distance from this LCA as well as the reducing the Horizontal FoV in views from parts of this LCA.	Minor (Non-significant)	Moderate effect (Significant) in the coastal, exposed areas to the north-east of Bangor, extending inland by 0.3-1 km.  Minor effect (Non-significant), adverse, long term, reversible elsewhere within the LCA.	Moderate effect (Significant) in the coastal, exposed areas to the north-east of Bangor, extending inland by 0.3-1 km. Minor effect (Non- significant), adverse, long term, reversible elsewhere within the LCA.
SNP LCA 01: Northern Uplands	Medium-high	Negligible to Medium-low to no change	Array area reduced in size reducing the Horizontal FoV from this LCA	Minor (Non-significant)	Moderate (Non-significant),	Moderate (Non- significant),
SNP LCA 02: Carneddau Range	High	Negligible to Low to no change	Array area reduced in size reducing the Horizontal FoV from this LCA	Minor (Non-significant)	Moderate-Minor (Non-significant)	Moderate-Minor (Non-significant)
Conwy/ Denbighshire LCA C4: Limestone Farmlands (Abergele	Medium	Negligible to Medium-low at the coastal edge and elevated locations	Array area reduced in size reducing the Horizontal FoV from this LCA	Minor (Non-significant)	Moderate-Minor to Minor (Non-significant)	Moderate-Minor to Minor (Non-significant)



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to Denbigh Coastal/ Vale Hills)		where inland from the coast by approximately 1-1.5 km with views out to sea. Reducing to Low or No change further inland.				
Conwy/ Denbighshire LCA C9: Limestone Escarpment and Hills	Medium-high	Negligible to Medium-low	Array area reduced in size reducing the Horizontal FoV from this LCA	Minor (Non-significant)	Moderate (Non-significant)	Moderate (Non- significant)
Conwy/ Denbighshire LCA C10: Great Orme and Creuddyn Peninsula	Medium-high	Low to Medium at the coastal edge between the northwest point of the Great Orme and Little Orme and from elevated locations on the Great Orme (extending inland from the north by approximately 1 km) and the north face of Little Orme. Reducing to Low or No change further inland where views are restricted or have a developed foreground.	size reducing the Horizontal FoV from this LCA	Minor (Non-significant)	Moderate (Significant) at the coastal edge between the north-west point of Great Orme and Little Orme and from elevated locations on the Great Orme (extending inland from the north by approximately 1 km) and the north face of Little Orme.  Moderate-Minor to Minor (Nonsignificant) elsewhere within the LCA.	Moderate (Significant) at the coastal edge between the north-west point of Great Orme and Little Orme and from elevated locations on the Great Orme (extending inland from the north by approximately 1 km) and the north face of Little Orme. Moderate-Minor to Minor (Nonsignificant) elsewhere within the LCA.



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Clwydian Hills and Dee Valley AONB LCT 2: Hills, Lower Plateau & Scarp Slopes	Medium-high	Negligible to Low	Array area reduced in size reducing the Horizontal FoV from this LCA	Minor (Non-significant)	Moderate-Minor (Non- significant)	Moderate-Minor (Non- significant)
Clwydian Hills and Dee Valley AONB LCT 5: Rolling Lowland	Medium-high.	Negligible to Low	Array area reduced in size reducing the Horizontal FoV from this LCA	Minor (Non-significant)	Moderate-Minor (Non- significant)	Moderate-Minor (Non- significant)
SCA 2: Conwy Bay	Medium-high	Negligible to Medium in vicinity of the Great Orme.  Medium-low across the upland area between Foel Lus and Conwy Mountain, the low lying coastal areas and rising land around Penmaenmawr and in the seascape to the north-west.  All other parts of the SCA - no change or low	size increasing the separation distance and reducing the Horizontal FoV from	Minor (Non-significant)	Moderate (Significant) on the upper and northerly slopes of the Great Orme across the upland area between Foel Lus and Conwy Mountain, the low lying coastal areas and rising land around Penmaenmawr and in the seascape to the north-west.  Minor to Moderate-Minor (Nonsignificant) elsewhere in the SCA.	Moderate (Significant) on the upper and northerly slopes of the Great Orme across the upland area between Foel Lus and Conwy Mountain, the low lying coastal areas and rising land around Penmaenmawr and in the seascape to the north-west.  Minor to Moderate-Minor (Non-significant) elsewhere in the SCA.
SCA 3: Traeth Lafan	Medium-high	Negligible to Medium at coastal, north- easterly exposed areas to the north of Beaumaris and south	Array area reduced in size reducing the Horizontal FoV from this SCA	Minor (Non-significant)		Moderate (Significant) in the coastal, north- easterly exposed areas to the north of Beaumaris and south of



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		of Viewpoint 28 – Trwyn y Penrhyn parking layby, extending inland by 0.3-0.5 km and the section of the immediate coast between a point north of Aber Farm to west of Llanfairfachan. Elsewhere lower or there will be no change.				Viewpoint 28 – Trwyn y Penrhyn parking layby, extending inland by 0.3- 0.5 km and the immediate coastal area between a point north of Aber Farm to the west of Llanfairfachan.  Moderate effect (Non- significant), elsewhere.
SCA 5: Penmon	Medium-high	Negligible to Medium at the coastal, northerly exposed areas of the LCA, extending inland by 0.5 to 0.75 km and excluding the settled inland and former quarry area to the east. Lower to no change elsewhere.	Array area reduced in size reducing the Horizontal FoV from this SCA	Minor (Non-significant)	Moderate (Significant) in the coastal, northerly exposed areas of the LCA, extending inland to a maximum of by 0.5 to 0.75 km.  Moderate-Minor (Nonsignificant), to the west of Bwrdd Arthur and in the settled inland and former quarry area to the east.	Moderate (Significant) in the coastal, northerly exposed areas of the LCA, extending inland to a maximum of by 0.5 to 0.75 km.  Moderate-Minor (Nonsignificant), to the west of Bwrdd Arthur and in the settled inland and former quarry area to the east.
SCA 6: Red Wharf Bay to Moelfre	Medium inland and in areas of open seascape.	Negligible to Medium-low to No change.	Array area reduced in size increasing the separation distance and reducing the	Minor (Non-significant)	Moderate (Significant)	Moderate effect (Significant)



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	Medium-high along the immediate coastal areas and within the contained areas of sea located between Moelfre headland and level with Bwrdd Arthur to the east where there is a strong association with the wider seascape to the north-east.		Horizontal FoV from this LCA			
SCA 7: Dulas Bay	Medium-high along the immediate coastal edge and within the sea area to the west of and lying between the Islet of Ynas Dulas and	Negligible to No change to Medium-low.	Array area reduced in size increasing the separation distance and the Horizontal FoV from this LCA	Minor (Non-significant)	Moderate (Significant) along the immediate coastal edge and within the sea area to the west of and lying between the Islet of Ynas Dulas and Moelfre headland where there is a direct association with the seascape to the north and north-east.  Minor effect (Non-significant) elsewhere	Moderate (Significant) along the immediate coastal edge and within the sea area to the west of and lying between the Islet of Ynas Dulas and Moelfre headland where there is a direct association with the seascape to the north and north-east.



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	Moelfre headland where there is a direct association with the seascape to the north and north-east and Medium elsewhere.					Minor effect (Non-significant) elsewhere
SCA A - Llandudno Bay	Medium-high.	Low to Medium	Array area reduced in size reducing the Horizontal FoV from this SCA	Minor (Non-significant).	Moderate effect (Significant)	Moderate effect (Significant)
SCA B - Colwyn Bay	Medium	Negligible to Medium	Array area reduced in size reducing the Horizontal FoV from this SCA	Minor (Non-significant)	Moderate effect (Non-significant)	Moderate effect (Non-significant)
SCA C - Vale of Clwyd	Medium	Negligible to Medium	Array area reduced in size reducing the Horizontal FoV from this SCA	Minor (Non-significant)	Moderate effect (Non-significant)	Moderate effect (Non-significant)
IoA AONB Special Quality: Expansive Views	High	Negligible Medium-low from south of Point Lynas to west of Bwrydd Arthur and Medium east of Bwrydd Arthur	Array area reduced in size increasing the separation distance and the Horizontal FoV in views from the AONB.	Minor (Non-significant)	Moderate or Major Moderate (Significant) from some limited coastal areas and higher vantage points within the AONB between Point Lynas in the	Moderate or Major Moderate (Significant) from some limited coastal areas and higher vantage points within the AONB between Point



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	to Penmon Point and north of Beaumaris in			north and Beaumaris in the south.	Lynas in the north and Beaumaris in the south.
	views from immediate coastal areas and vantage points set back from the coast.  Elsewhere low or negligible/ no change.				Represented by Viewpoint (VP) 7: Penmon Point towards Puffin Island and Great



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
					Moderate to Major-Moderate (Significant) on relative wilderness and the feeling of isolation (from human intervention) would apply in views from the sections of the coast between Moelfre and Point Llynas and along the coast between Penmon Point and Bwrdd Arthur.  There would be no change to the perception of exposure as a result of the introduction of AyM OWF to views.  Elsewhere the effects would be Non-significant	as the Great Orme and Puffin Island.  From some of these locations there may in turn be effects on the perceptions of the sense of openness as a result of the introduction of the AyM OWF to views over the seascape.  Moderate to Major-Moderate (Significant) on relative wilderness and the feeling of isolation (from human intervention) would apply in views from the sections of the coast between Moelfre and Point Llynas and along the coast between Penmon Point and Bwrdd Arthur.  There would be no
						change to the perception of exposure as a result of the introduction of AyM OWF to views.  Elsewhere the effects would be <b>Non-</b>



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
						significantViews across the Menai Strait or towards more distant borrowed landscapes of Snowdonia, the Isle of Man, the Llyn Peninsula and the mountains of the Lake District would not generally be affected.
IoA AONB Special Quality: Peace and Tranquillity	High for areas classified as 'Undisturbed'. Medium to high elsewhere	Medium-low or medium from limited locations within the AONB.  Viewpoint 14: Wales Coast Path near Pennrhyn (Traeth yr Ora);  Viewpoint 28: Trwyn y Penrhyn parking layby;  Viewpoint 42: Mynydd Bodafon – Trig Point;  The northerly section of WCP Section C: Dulas Bay;  the northerly section of WCP Section E Red	size increasing the separation distance and the Horizontal FoV in views from the AONB.	Minor (Non-significant)	<ul> <li>Moderate to Moderate-Major effect (Significant), identified at:</li> <li>Viewpoint 14: Wales Coast Path near Pennrhyn (Traeth yr Ora);</li> <li>Viewpoint 28: Trwyn y Penrhyn parking layby;</li> <li>Viewpoint 42: Mynydd Bodafon – Trig Point;</li> <li>The northerly section of WCP Section C: Dulas Bay;</li> <li>the northerly section of WCP Section E Red Wharfe Bay/ Penmon; and</li> <li>WCP Section F Penmon Point in part.</li> <li>Effects on other receptors assessed non-significant, adverse, short-term, temporary.</li> </ul>	Moderate to Moderate- Major effect (Significant), identified at:  Viewpoint 14: Wales Coast Path near Pennrhyn (Traeth yr Ora);  Viewpoint 28: Trwyn y Penrhyn parking layby;  Viewpoint 42: Mynydd Bodafon – Trig Point;  The northerly section of WCP Section C: Dulas Bay;  the northerly section E Red Wharfe Bay/ Penmon; and



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
		Wharfe Bay/ Penmon; and WCP Section F Penmon Point in part. Low or negligible/ no change elsewhere				<ul> <li>WCP Section F Penmon Point in part.</li> <li>Effects on other receptors assessed non- significant, adverse, short-term, temporary.</li> </ul>
loA AONB Special Quality: Islands around Anglesey	High	26 islands no change Puffin Island-Medium Ynys Moelfre – Medium-low Ynys Dulas- Medium-low East Mouse (Ynys Amlwch) - Low	Array area reduced in size increasing the separation distance and the Horizontal FoV in views from the AONB.	Minor (Non-significant)	Major to Major-Moderate (Significant) on the visual interaction between the landscape/ seascape where the AyM OWF would form part of the backdrop to the islands of Ynys Moelfre, Ynys Dulas and Puffin Island. Elsewhere Minor to Moderate- Minor (Non-significant)	Major to Major- Moderate (Significant) on the visual interaction between the landscape/ seascape where the AyM OWF would form part of the backdrop to the islands of Ynys Moelfre, Ynys Dulas and Puffin Island. Elsewhere Minor to Moderate-Minor (Non- significant)
SNP Special Quality: Diverse landscapes	Medium-high	Negligible to Low to Medium-low	Array area reduced in size reducing the Horizontal FoV in views forming part of the experience of this Special Quality.	Minor (Non-significant)	Moderate-Minor to Moderate (Non-significant)	Moderate-Minor to Moderate (Non- significant)
SNP Special Quality: Tranquillity & solitude - Peaceful Areas.	Medium-high	Negligible to Low	Array area reduced in size reducing the Horizontal FoV in views forming part of	Minor (Non-significant)	Moderate-Minor (Non-significant)	Moderate-Minor (Non- significant)



IMPACT	SENSITIVITY OF RECEPTOR	MAGNITUDE DURING CONSTRUCTION, OPERATION AND DECOMMISSIONING	MITIGATION MEASURES	RESIDUAL EFFECT DURING EARLY STAGES OF CONSTRUCTION AND LATTER STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	RESIDUAL EFFECT DURING LATTER STAGES OF CONSTRUCTION AND EARLY STAGES OF DECOMMISSIONING (ADVERSE, SHORT-TERM, TEMPORARY EFFECT)	
			the experience of this Special Quality.			
Clwydian Range and Dee Valley AONB Special Quality: Landscape Character and Quality – Tranquillity	Medium-high	Negligible to Low	Array area reduced in size reducing the Horizontal FoV from this SCA	Minor (Non-significant)	Moderate-Minor (Non- significant)	Moderate-Minor (Non- significant)
Clwydian Range and Dee Valley AONB Special Quality: Landscape Character and Quality – Remoteness and Wildness/ Wilderness	Medium-high	Negligible to Low	Array area reduced in size reducing the Horizontal FoV from this SCA	Minor (Non-significant)	Moderate-Minor (Non- significant)	Moderate-Minor (Non- significant)

1561 The effects of MDS B on the representative viewpoints are assessed to be the same as those assessed for MDS A.



### 10.18 References

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# Errata List

# **Special Qualities**

In ExQ1.17.10, the ExA noted an error in paragraph 798 and 806 where it is suggested that 'Diverse Views' are special qualities.

The Applicant can confirm that Diverse Views is not an identified Special Quality in the SNPPP 2020. The Special Qualities that may be affected by the Development are 'Diverse landscapes' and 'Tranquillity and solitude – Peaceful areas'.

#### Erroneous comma

In ExQ1.17.28, the ExA queried the presence of a comma in paragraph 1407 where lighting is referred to as "2,00cd".

The Applicant can confirm that the comma is erroneous, and paragraph 1407 should read as "200cd lighting".

### **Night-time effects**

In ExQ1.17.29, the ExA noted an error in paragraph 1559 which incorrectly refers to significant night-time effects in respect of Anglesey AONB.

The Applicant can confirm that the summary of the night-time effects at paragraph 1559 are incorrect. The effects on the Anglesey AONB are correctly reported from paragraph 1445 of (AS-027) as non-significant.

### **Correction to Viewpoint reference**

In ExQ1.17.32, the ExA noted an error in Table 20 which incorrectly cites "VP 30: Snowdon Summit".

The Applicant can confirm that this row within Table 20 should read as "VP 34: Snowdon Summit".



#### **Wales Coast Path**

In ExQ1.17.33, the ExA noted an error in paragraph 678 that incorrectly refers to Penrhyn Castle in respect of Wales Coast Path Section I.

The Applicant can confirm that this is not correct, and paragraph 678 should be deleted from this section.

### Correction to figure references

In ExQ1.17.34, the ExA noted that "Figure 18.1" is incorrectly referenced to in paragraphs 598, 613, 1055, 1074, 1268, and "Figure 10.1" is incorrectly referenced to in paragraph 1271.

The Applicant can confirm that this should instead read as "Figure 17.1" in paragraphs 598, 613, 1055, 1074, 1268 and in 1271.

In ExQ1.17.34, the ExA also noted that "Annex 10.6" is incorrectly referenced to throughout.

The Applicant can confirm that where visualisations are incorrectly noted as being included in "Annex 10.6" this should read instead as "Volume 6, Annex 10.5".

# Format of sub-headings

In ExQ1.17.35, the ExA noted the word 'Denbighshire' between paragraphs 1232 and 1233.

The Applicant can confirm that the word 'Denbighshire' located between paragraphs 1232 and 1233 should be shown as a sub-heading.

# Inclusion of VP 43

In response to ExQ1.17.24, the Applicant notes that the inclusion of VP 43 in Table 2 as a representative viewpoint was in error.



It should have been noted in the Table 2 as an illustrative viewpoint due to its distance from AyM, the character of the intervening landscape, the wide and diverse panoramic views so that AyM is a relatively small component of these. These factors ensure that the effect of AyM on this viewpoint would be non-significant.

# Sensitivity of Tal-y-Fan

In response to NRW's Written representation (paragraph reference REP1-080-6.1.28), the Applicant acknowledges that the sensitivity at Tal-y-Fan should have been high within Table 9.

Nevertheless, with an assessed (and agreed) magnitude of change of medium-low, the Applicant's SLVIA authors remain of the opinion that the effect is Moderate (Non-significant)

### Snowdonia National Park Partnership Plan 2020

In response to ExQ1.17.1, the Applicant wishes to note that reference is wrongly made to the SNPPP being at consultation draft stage in Table 1 and paragraph 1399. Cynllun Eryri (The Snowdonia National Park Partnership Plan, 2020) was adopted in 2020. Reference is made to the adopted version in the assessments contained in the ES at (AS-027).





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