

# Chapter 8

## Seascape, Landscape & Visual Impact Assessment

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## Glossary

Term	Definition
Baseline Studies	Work done to determine and describe the environmental conditions against which any future changes can be measured or predicted and assessed.
Characteristics	Elements, or combination of elements, which make a contribution to distinctive seascape/landscape character.
Designated Seascape/Landscape	Areas of seascape/landscape, identified as being of importance at international, national, regional or local levels, either defined by statute or identified in development plans or other documents.
Development	Any proposal that results in a change to the seascape/landscape and /or visual environment.
Direct Effect	An effect that is directly attributable to the proposed development
Elements	Individual parts which make up the landscape, such as for example, trees, hedges and buildings
Indirect Effects	Effects that result indirectly from the proposed development as a consequence of the direct effects, often occurring away from the site. This may be separated by distance or in time from the source of the effects.
Key Characteristics	Those combinations of elements which are particularly important to the existing character of the seascape/landscape and help to give an area a particularly distinctive sense of place.
Landform	The shape and form of the land surface, which has resulted from combinations of geology, geomorphology, slope, elevation and physical process.
Landscape	An area, as perceived by people, the character of which is the result of the action and interaction of natural and/or human factors.
Landscape Character	A distinct, recognisable and consistent pattern of elements in the landscape that makes the landscape different from another, rather than better or worse.
Landscape Character Areas	These are single unique areas which are the discrete geographical areas of a particular landscape type.
Landscape Effects	Effects on the landscape as a resource in its own right.
Landscape Receptors	Defined aspects of the landscape resource that have the potential to be affected by the proposed development.
Land Use	What land is used for, based on broad categories of functional land cover, such as agricultural, forestry, urban.
North section	Section of development located north of Bryn settlement, within Penhydd forestry block.
Photomontage	A visualisation which superimposes an image of the proposed development upon a photograph or series of photographs.
Quality	A measure of the physical state of the seascape/landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the seascape/landscape and the condition of individual elements.
Scoping	The process of identifying the issues to be addressed by an Environmental Impact Assessment.

Term	Definition
Seascape	Landscapes with views of the coast or sea, and coasts and adjacent marine environments with cultural, historical and archaeological links with each other.
Seascape Character	A distinct, recognisable and consistent pattern of elements in the seascape that makes the seascape different from another, rather than better or worse.
Seascape Character Areas	These are single unique areas which are the discrete geographical areas of a particular seascape type.
Seascape Landscape Character Assessment	The process of identifying and describing variation in the character of the seascape and landscape and using this information to assist in managing change in the seascape/landscape. It seeks to explain the unique combination of elements and features that make seascape/landscape distinctive. The process results in the production of a Seascape Landscape Character Assessment.
Sensitivity	A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that response.
Significance	A measure of the importance of the environmental effect, defined by significance criteria specific to the environmental topic.
South section	Section of development located south of Bryn settlement, within Bryn forestry block.
Susceptibility	The ability of a defined seascape/landscape or visual receptor to accommodate the specific proposed development without undue negative consequences.
Tranquillity	A state of calm and quietude associated with peace, considered to be a significant asset of the landscape.
Value	The relative value that is attached to seascape/landscapes by society. A seascape/landscape may be valued by different stakeholders for a variety of reasons.
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 the activities of the people loving, working, recreating, visiting or travelling through an area.
Visual Effects	Effects on specific views and on the general visual amenity experienced by people.
Visual Receptors	Individuals and/or defined groups of people who have the potential to be affected by the proposed development.
Visualisation	A computer simulation, photomontage or other technique illustrating the proposed appearance of the development.
Zone of Theoretical Visibility	A map, showing areas of land within which, the proposed development is theoretically visible.

## List of Abbreviations

Abbreviation	Description
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
BAP	Biodiversity Action Plan
BBNP	Bannau Brycheiniog National Park
BCBC	Bridgend County Borough Council
BGCBC	Blaenau Gwent County Borough Council
CC	Cardiff Council
CCBC	Caerphilly County Borough Council
CCC	Carmarthenshire County Council
CRoW	Countryside and Rights of Way Act
DNS	Development of National Significance
ES	Environmental Statement
GLVIA	Guidelines for Landscape and Visual Impact Assessment
IEMA	Institute of Environmental Management and Assessment
Km	Kilometre
LCA	Landscape Character Area
LDP	Local Development Plan
LVIA	Landscape Visual Impact Assessment
LOSHIW	Landscapes of Special Historic Interest in Wales
MTB	Mountain bike trails
MTCBC	Merthyr Tydfil County Borough Council
NCC	Newport City Council
NCR	National Cycle Routes
NPTCBC	Neath Port Talbot County Borough Council
NRW	Natural Resources Wales
NSIP	Nationally Significant Infrastructure Project
PCC	Powys County Council
PPW	Planning Policy Wales
RCTCBC	Rhondda Cynon Taff County Borough Council
REP	Renewable Energy Park
RVAA	Residential Visual Amenity Assessment
SC	Swansea Council
SCA	Seascape Character Area
SLA	Special Landscape Area
SLVIA	Seascape Landscape Visual Impact Assessment
SNH	Scottish National Heritage

Abbreviation	Description
SPG	Supplementary Planning Guidance
TAN	Technical Advice Note
TCBC	Torfaen County Borough Council
UDP	Unitary Development Plan
VoGC	Vale of Glamorgan Council
WHS	World Heritage Site
WWTW	Welsh Water Treatment Works
ZTV	Zones of Theoretical Visibility

## 8.1 INTRODUCTION

- 8.1.1 This Seascape, Landscape and Visual Impact Assessment (SLVIA) has been prepared by Soltys Brewster Consulting, to assess the likely effects of the proposed Y Bryn Wind Farm (referred to as the 'proposed development' hereafter) on seascape, landscape and visual resources within the defined study area.
- 8.1.2 The proposed development is located mainly within the Neath Port Talbot County Borough Council (NPTCBC) area, although some infrastructure also extends into the Bridgend County Borough Council (BCBC) area. The proposed development is predominantly split into two sections of forestry: the north section (Penhydd) is located to the north of the B4282 road, and the south section (Bryn) located to the south of the road. It is proposed that the development will consist of up to 18 turbines with a maximum blade tip height ranging between 206 m to 250 m, with associated infrastructure including a substation and battery storage compound, wind monitoring equipment, new and upgraded access tracks, crane hardstanding's, and borrow pits. See Chapter 5: Project Description for detail on the proposed infrastructure.
- 8.1.3 The SLVIA describes and evaluates the existing baseline seascape/landscape and visual resources, including seascape/landscape character and visual amenity, and assesses the potential effects of the proposed development on these. The assessment focusses on the significant effects of the proposed development, which are described in Section 8.7. A detailed description of the existing baseline landscape condition against which the impact of the proposed development can be assessed, including Y Bryn site boundary and its context within the confines of the study area, and the extent of visibility of the proposed development is described. Effects are considered during the construction, operational and decommissioning phases of the proposed development.
- 8.1.4 SLVIAs are separate, although linked, procedures. Seascape and landscape effects derive from changes to the elements that make up the seascape/landscape, the aesthetic and perceptual aspects of the seascape/landscape and their distinctive character. This includes direct effects upon seascape/landscape elements and patterns within the proposed development, and effects upon seascape/landscape character and seascape/landscape designations. Visual effects relate to changes that arise in the composition of available views as a result of changes to the seascape/landscape, to people's responses to the changes and to the overall effects with respect to visual amenity.
- 8.1.5 Assessment of seascape/landscape impacts requires consideration of two broad categories:
- Potential aspects and attributes of the land that falls within the proposed development. Direct landscape impacts comprise changes to the physical baseline landscape resulting directly from the proposed development itself. These will likely arise as a consequence of changes to the existing pattern of landform, vegetation, habitats and other features through the imposition of turbines, access tracks and other associated infrastructure. Effects are assessed using a combination of relevant site-based investigations and surveys to inform the baseline study and field work; and
  - The characteristics of the wider landscape surrounding the proposed development site within the study area adopted for the assessment (45 km from the outermost proposed turbine). Indirect landscape impacts result from consequential change resulting from the proposed development and are often produced away from the proposed development or as a result of a complex pathway or secondary association and will include changes to the landscape character within the study area. Landscape character is assessed using Landscape Character Assessments, where available, site assessment field work and supplemented by LANDMAP.
- 8.1.6 Assessment of visual impacts requires consideration of selected viewpoints and constituent factors within the available views. Viewers, known as visual receptors, will include people with views from their residential properties, local communities, transportation routes, along with people undertaking outdoor recreational activities or employment. Visual effects will arise from changes to the constituent factors within views, which for this assessment will mainly be concerned with the introduction of the proposed turbines.
- 8.1.7 Both landscape and visual assessment requires the consideration of aspects such as topography, land-use, landscape condition, quality, visibility and aesthetics. Together, these aspects help in defining the sensitivity and robustness of the baseline resources within the study area, and its capacity to accommodate changes of a given development scale, form and appearance.
- 8.1.8 The methodology adopted for this assessment has been guided by current 'best practice' guidance published by the Landscape Institute and Institute of Environmental Management, Guidelines for Landscape and Visual Impact Assessment (GLVIA), 3rd Edition (2013), tailored to the scope of the proposed development, available detail and project constraints.
- 8.1.9 This chapter should be read alongside the figures and visualisations found in Volume 2 of this Environmental Statement (ES) and Appendix 8: SLVIA found in Volume 3 of the Environmental Statement (ES). This chapter provides details of all significant effects on seascape/landscape character and visual amenity that are predicted for the construction, operational and decommissioning phases of the proposed development.
- 8.1.10 Appendix 8: SLVIA provides the following sections of the SLVIA:
- 8.1 SLVIA Methodology;
  - 8.2 Legislation and Policy Context;
  - 8.3 Landscape Designations;
  - 8.4 Seascape and Landscape Character Area Descriptions;
  - 8.5 LANDMAP Assessment – Filtering for Inclusion/Exclusion;
  - 8.6 Summary of Consultation Responses;
  - 8.7 Potential Effects Construct Phase (*non significant effects only*);
  - 8.8 Potential Effects on Seascape Landscape Character (*non significant effects only*);
  - 8.9 Potential Effects on Visual Amenity (*non significant effects only*);
  - 8.10 Foel Trawsnant Wind Farm Section 73 Application;
  - 8.11 Potential Effects on Statutory and Non-Statutory Designations (*non significant effects only*);
  - 8.12 Potential Effects on Circulation, Movement and Access (*non significant effects only*);
  - 8.13 Cumulative Assessment – Non Wind Farm Developments (*non significant effects only*);
  - 8.14 Potential Effects Decommissioning Phase (*non significant effects only*);
  - 8.15 Residential Visual Amenity Assessment (RVAA) Methodology;
  - 8.16 RVAA; and
  - 8.17 Aviation Lighting Assessment.
- 8.1.11 The SLVIA concludes that there will be:
- No significant construction stage effects on landscape character and visual amenity;
  - No significant operational effects on seascape character;
  - Significant effects on 18 Landscape Character Areas (LCAs) out of a total of 55 LCAs that were taken forward for assessment;
  - Significant cumulative effects on landscape character within six LCAs;
  - Significant individual effects on visual amenity from 17 of a total of 37 viewpoints;
  - Significant cumulative effects on visual amenity from 11 of a total of 37 viewpoints;
  - Significant effects on one statutory designated area;

- Significant effects on six non-statutory designated areas;
- Significant effects on two long distance trails that pass through or near to the proposed development; and
- No significant effects during the decommissioning phase.

## 8.2 LEGISLATION AND POLICY CONTEXT

8.2.1 There are a number of UK wide, national, and local planning policy relevant to the SLVIA that must be considered when determining the acceptability of the proposed development from a seascape/landscape character and visual perspective. These are summarised in Tables 8.1 to 8.4. A full copy of the policies, including Supplementary Planning Guidance (SPG) as noted within the relevant planning documents are provided in detail within Appendix 8.2: Legislation and Policy Context in Volume 3 of the ES.

Table 8.1: UK wide policy and legislation

Act	Date of Enactment
The National Parks and Access to the Countryside Act	1949
Countryside and Rights of Way (CROW) Act	2000

Table 8.2: National planning policy

Planning Policy	Date of Adoption
Planning Policy Wales (PPW) Edition 11	February 2021
Future Wales – The National Plan 2040	February 2021
Technical Advice Note (TAN) 8	2005

Table 8.3: Local planning policy

Local Authority	Planning Policy	Date of Adoption
NPTCBC	Local Development Plan (LDP) 2011 -2026	January 2016
	Landscape and Seascape SPG	May 2018
	Renewable and Low Carbon Energy SPG	July 2017
	The Historic Environment SPG	April 2019
BCBC	LDP 2006 -2021 SPG 20: Renewables in the Landscape SPG	September 2013
Swansea Council (SC)	LDP 2010-2025	February 2019
	Gower AONB Design Guide SPG	November 2011
	Carmarthen Bay, Gower, and Swansea Bay Local Seascape Character Assessment	November 2017
	Gower landscape Character Assessment	2013

Local Authority	Planning Policy	Date of Adoption
	Gower Area of Outstanding Natural Beauty (AONB) Management Plan	2017
Vale of Glamorgan Council (VoGC)	LDP 2011 – 2026	28 <sup>th</sup> June 2017
Bannau Brycheiniog National Park (BBNP) Authority	LDP 2007 - 2022	June 2014
	Landscape and Development SPG	
	BBNP Landscape Character Assessment	
Carmarthenshire County Council (CCC)	LDP 2006 -2021	December 2014
Rhondda Cynon Taf County Borough Council (RCTCBC)	LDP 2006 - 2021	March 2011
	The Historic Built Environment	March 2011
Powys County Council (PCC)	LDP 2011 – 2026	June 2017
Merthyr Tydfil County Borough Council (MTCBC)	LDP 2016 - 2031	January 2020
Cardiff Council (CC)	LDP 2006 - 2026	January 2016
Caerphilly County Borough Council (CCBC)	LDP 2006 - 2021	November 2011
Torfaen County Borough Council (TCBC)	LDP to 2021	December 2013
Blaenau Gwent County Borough Council (BGCBC)	LDP 2006 - 2021	November 2021
Newport City Council (NCC)	LDP 2011 – 2026	January 2015

8.2.2 The proposed development lies mainly within the local authority boundary for NPTCBC, but also within BCBC to the east. A further 11 local authorities exist, plus the BBNPA, either partially or fully within the 45 km radius study area. However, from the following Local Authority areas, the Zones of Theoretical Visibility (ZTV) (refer to Figure 8.1) indicate that there will be either no or very limited potential visibility and/or the Local Authority area is located at a distance where effects are unlikely to be significant. Local Planning policy for the following areas is therefore excluded and will not be considered further in subsequent sections of the SLVIA:

- BGCBC;
- CCBC;
- CC;
- MTCBC;
- Monmouthshire County Borough Council (MCBC)
- NCC; and
- TCBC.

8.2.3 Policies relating to landscape and visual issues found within their respective adopted LDPs/Unitary Development Plans (UDPs) for all 10 local authorities/National Park Authorities are provided in Appendix 8.2.

## 8.3 INFORMATION SOURCES AND ASSESSMENT METHODOLOGY

### Information Sources

- 8.3.1 This assessment of the effects on landscape character and visual amenity of the proposed development was undertaken using a methodology developed by Soltys Brewster Consulting drawn from the following guidance:
- GLVIA, Third Edition. Landscape Institute with the Institute of Environmental Management and Assessment (IEMA) (2013);
  - Assessing the Cumulative Impact of Onshore Wind Energy Developments, NatureScot, (March 2021);
  - Siting and Designing Wind Farms in the Landscape, Version 3, Scottish National Heritage (SNH) (2017);
  - Natural Resources Wales (NRW) Guidance Note 046, 'Using LANDMAP in Landscape and Visual Impact Assessments, (LVIA),' January 2021;
  - Visual Representation of Wind Farms, Version 2.2, SNH (February 2017);
  - Visual Representation of Development Proposals - Technical Advice Note 06/19, Landscape Institute (September 2019), including supporting Technical Information Notes 07/19, 08/19 and 09/19;
  - Seascape And Visual Sensitivity to Offshore Wind Farms in Wales: National Seascape Assessment for Wales - NRW Evidence Report No. 80, NRW (November 2015), Strategic Assessment and Guidance, Stage 1- Ready Reckoner of Visual Effects Related to Turbine Size, Report no. 315, NRW (March 2019);
  - National Seascape Assessment for Wales, NRW Evidence Report No.80, NRW (November 2015);
  - Carmarthen Bay, Gower and Swansea Bay Local Seascape Character Assessment, White Consultants/Cardiff University (November 2017);
  - An Approach to Landscape Sensitivity Assessment – To Inform Spatial Planning and Land Management, Natural England (June 2019);
  - Assessing Landscape Value Outside National Designations -Technical Guidance Note 02/21, Landscape Institute (2021); and
  - Residential Visual Amenity Assessment (RVAA). Technical Guidance Note 2/19. Landscape Institute (2019).

### Assessment Methodology

- 8.3.2 Details of the criteria and methods used in assessing the effects of the proposed development on landscape character and visual amenity, both individually and cumulatively are set out in Appendix 8.1: SLVIA Methodology.

## 8.4 CONSULTATION

- 8.4.1 The proposed methodology for the SLVIA was included within the scoping report issued in January 2021, and the scoping direction in March 2021 provided comments from consultees on this methodology. Letters were subsequently issued to consultees clarifying points raised during the scoping process which further refined the SLVIA approach. The scoping report, scoping direction and post-scoping correspondence can be found in Appendix 3 in Volume 3 of the ES.
- 8.4.2 The scoping report also identified the viewpoints proposed for inclusion in the assessment. Following preliminary field study, desk-based review of baseline information and preliminary mapping, 22 no. potential viewpoint locations were identified within the 45 km radius study area. NPTCBC, BCBC, SC, VoGC, BBNP and NRW all provided comments on the location and final number of viewpoints to be included within the SLVIA within the

scoping direction. Further correspondence was issued to finalise the list of viewpoints that has been included in this assessment, which resulted in 37 viewpoints being assessed.

- 8.4.3 Another point raised in the scoping responses related to the study area. It was noted by both NPTCBC and BCBC that a more detailed assessment should be carried out within an inner study area of 15 km in order to assess the likely significant effects of the proposed development at a more local scale. For the assessment of both individual effects and cumulative effects on landscape character and visual amenity, the study area boundary extends from the outer most turbine, for a radius of 45 km. However, analysis of the ZTV and LANMAP assessment indicate that potential significant effects are likely to be contained within 15 km of the outer most turbine. Although effects are considered within the full 45 km study area, the assessment is broadly focussed on potential effects within 15 km.
- 8.4.4 Further clarity following scoping was provided in relation to turbine dimensions to be used in the assessment and confirmed that the assumed maximum hub and maximum tip height would be presented on the ZTVs and that visualisations would be based on the maximum rotor diameter (for turbine candidates considered at the time) for visualisations.
- 8.4.5 The assessment of cumulative effects on seascape landscape character and visual amenity has been carried out in accordance with current guidance as set out within GLVIA3<sup>1</sup>. The cumulative assessment therefore includes all operational wind farms as described within the seascape landscape baseline, together with consented wind farms and those application for planning (refer to Figures 8.3 and 8.26).

## 8.5 BASELINE CONDITIONS

- 8.5.1 This section establishes the baseline landscape and visual character of the study area by drawing together existing desktop information such as maps, planning designations and historic references, and verifying and expanding upon information gathered through site survey. The SLVIA study covers a defined study area of 45 km offset from the outer most turbine of the proposed development.
- 8.5.2 For the assessment of effects on visual amenity, baseline photographs and supporting wirelines were provided for all land-based viewpoint locations within the study area. In addition, a 3D model of the proposed development and surrounding landscape was also prepared. The model allowed for predicted views of the proposed turbines and also forestry growth to be illustrated. This information in combination with wireline, photomontages and Line of Sight plans assisted in the assessing the effects on visual amenity within the study area.
- 8.5.3 In accordance with best practice, the production of photomontages was limited to viewpoint locations within or within proximity with 15 km of a proposed turbine. More distant viewpoints rely on baseline photographs and wirelines to illustrate the visual effects of the proposed development.

### Study Area and Context

- 8.5.4 Within 15 km of the proposed development, the landscape predominately consists of an upland plateau, dissected by valleys that extend towards the flat coastal plain and the wide expanse of Swansea Bay.
- 8.5.5 Topography varies, between the low lying coastal plain, which is typically below 10 m Above Ordnance Datum (AOD), rising to approximately 250 m AOD on the scarp slopes and up to approximately 600 m AOD within the north-eastern areas.
- 8.5.6 The coastal plain extends from Southerndown in the east, through to Swansea Promenade in the west. It is dominated by the sweeping arc of Swansea Bay that include wide sandy beaches and open views across the Bristol Channel. The dune complex of Kenfig Burrows has been eroded with time through development but form an important natural feature. Development is a key characteristic of the coastal plain and includes the settlements

<sup>1</sup> Guidelines for Landscape and Visual Impact Assessment, Third Edition. Landscape Institute with the Institute of Environmental Management and Assessment (2013); paragraph 7.13

- of Porthcawl, Port Talbot, Aberavon and the eastern fringes of Swansea, including the Swansea Docks. In addition to these settlements, the steel works located between Kenfig Burrows and Port Talbot and the M4 motorway form a dominant and key characteristic feature within the landscape.
- 8.5.7 Bound by the M4 motorway and rising above the coastal plain is the scarp slope that forms the edge of the coalfield plateau and includes the Mynydd Dinas, Mynydd Emroch, Ergyd Isaf and the lower slopes of Mynydd Margam. The scarp is typically vegetated with a mix of woodland, pasture and rough grassland. Notable features on the scarp slope, include the existing Mynydd Brombil Wind Farm, which is located on Ergyd Isaf and consists of four turbines, and a string of high-voltage pylons which lead out from the substation at Margam. Mynydd Emroch contains a solar farm and a television transmitter.
- 8.5.8 Beyond the scarp slope lies the coalfield plateau. This is a sparsely populated upland landscape which is typically characterised by a mix of productive forestry, predominantly spruce. It includes Michaelston Forest, which encompasses the north section of the proposed development, Margam Forest which encompasses the southern section and Ogmor Forest to the east. In addition to the forestry blocks, heathland and upland landscape habitats also dominate. Public access includes the long distance footpaths of the Ogwr Ridgeway Walk and St. Illtyd's Walk. Afan Forest Park is also located within the coalfield plateau and is a popular destination for walkers and especially mountain bikers. To the north of this forest park lies Pant y Wal Wind Farm, while to the north-eastern fringes of the detailed study area and located within the upland plateau is Pen y Cymoedd Wind Farm, which consists of a total 76 no. turbines. To the eastern fringes of the detailed study area lies Hirwaun Common, upon which the turbines of Mynydd Bwllfa Wind Farm partially extend across. This undulating landscape that includes Mynydd y Gaer (295 m AOD), is an open, treeless common of unimproved grassland, rush pasture and rough upland vegetation, which is predominately grazed by sheep.
- 8.5.9 Other notable summits include Mynydd Margam, Mynydd Bach and Mynydd Penhydd upon which the proposed development partly encompasses, plus Mynydd Emroch, Mynydd Dinas, Mynydd y Gaer, Mynydd Nant-y-bar, Mynydd Pen-rhys, Mynydd Resolven and Mynydd Llangeinwyr.
- 8.5.10 The upland plateau is dissected by a number of valleys, including the Llynfi Valley, Garw Valley, Ogmor Valley, Afan Valley, Dulais Valley, Neath Valley, Swansea Valley and Rhondda Valley. With the exception of the Rhondda Valley, which runs in an east to west direction, the valleys predominately cut through landscape in a north-east-to south-west direction. Ribbon development typically extends along the valley floors, including the settlements of Pontycymmer, Maesteg, Cwmafan, Treorchy, Treherbet, Neath, Clydach and Pontardawe.
- 8.5.11 The landscape to the south-east, which includes the town of Bridgend, is generally lower lying than the upland areas further to the north. It encompasses an area of Newton Down, a landscape plateau, which rises to approximately 100 m AOD and predominantly comprises of agricultural fields, with scattered woodland blocks. Newton Down Wind Farm and Parc Stormy, consisting of combined total four turbines, are located around the summit of Newton Down.
- 8.5.12 The wider study area extends as far as the town of Llandovery in the north and to the fringes of the Somerset coast to the south. The western extent of the study area includes the Loughor Estuary, while to the east, the study area extends to the fringes of Newport.
- 8.5.13 The BBNP is located within the northern half of the study area and includes the areas of Black Mountain and also Fforest Fawr. Black Mountain is predominantly an open, exposed moorland landscape with scarp slopes and lakes, including Llyn y Fan Fawr and Llyn y Fan Fach. There are few trees and the landscape is typically vegetated with blanket bog, dwarf shrub heath, limestone grassland and marshy grassland. To the east lies Fforest Fawr, which like Black Mountain is also an upland moorland landscape. The flat-topped summits and steep northern escarpments form prominent features within views and includes some large block of productive coniferous forestry. There are few roads or settlements within these areas, which creates a remote and tranquil feel. The open, exposed upland areas continue further to the east, where the flat topped, sandstone crags characterise this part of the BBNP. It includes Pen y Fan, which at 886 m AOD is the highest point in South Wales. To the south and located between the settlements of Merthyr Tydfil and Brynmawr is the open, upland plateau formed by Mynydd Llangatwg and Mynydd Llangynidr.
- 8.5.14 To the north of the upland areas, the land is lower lying and is characterised by a river valley formed by the River Usk. It widens out to a broad floodplain as it extends further to the east and land use is predominantly agricultural fields, enclosed by hedgerows and scattered blocks of woodland trees. The valley contains a number of settlements, including Llangyndir, Sennybridge and Brecon.
- 8.5.15 The agricultural landscape extends beyond the northern boundary of the BBNP and includes the Tywi Valley. This broad river valley, that runs from the town of Llandovery in the north, to Carmarthen on the western edge of the study area, typically consists of a wide level flood plain made up of agricultural fields bound by hedgerows and trees, with wooded valley slopes. The town of Llandeilo is also located within the river valley, as are the historic Dinefwr and Dryslwyn castles.
- 8.5.16 The Swansea Valley lies to the south of the BBNP and extends broadly in an east to west direction and includes the settlements of Cwmtwrch, Ystradgynlais and Abercave. To the west, the upper Swansea Valley joins with the Amman Valley, which includes the settlements of Brynamman, Glanamman and the town of Ammanford. The eastern half of the study area is dominated by the former coal mining valleys, including:
- Rhondda Fach Valley;
  - Cynon Valley;
  - Taf Valley;
  - Taf Bargoed Valley;
  - Rhymney Valley;
  - Merthyr Vale;
  - Sirhowy Valley;
  - Ebbw Fach Valley; and
  - Ebbw Valley.
- 8.5.17 These valleys are typically narrow, steep sided river valleys that run broadly in a north to south direction through the landscape and are characterised by the ribbon development that extend along the valley floors and lower slopes. Key settlements include:
- Hirwaun;
  - Aberdare;
  - Mountain Ash;
  - Abercynnon;
  - Rhymney;
  - Tredegar;
  - Ebbw Vale;
  - Blaenavon;
  - Abertillery;
  - Ystrad Mynach; and
  - Pontypridd.

- 8.5.18 In addition to the above ribbon developments, larger, more nucleated settlements including Merthyr Tydfil, Blackwood, Cwmbran, Caerphilly and Pontypool are located to the northern and southern edges of the valleys.
- 8.5.19 The coastal areas within the south-east fringes of the wider study area are dominated by the large urban developments of Newport, Cardiff and Barry. The coastline to the west of Barry and extending to Ogmore-On-Sea is less developed and is noted for its Blue Lias cliffs, which form a dramatic coastline to this part of the wider study area. Further inland the landscape is dominated by the relatively low-lying land within the Vale of Glamorgan, which is predominantly used for agriculture. There are a number of small villages scattered throughout, plus larger settlements that include Llantwit Major and Cowbridge.
- 8.5.20 Coastal areas within the south-western fringes of the study area include western fringes of Swansea and Mumbles, extending further to the west is the coastline of Gower, which includes a mix of rocky and sandy bays, including Three Cliffs Bay, Oxwich Bay, Langland Bay and Rhossili Bay. The inland areas of Gower are predominantly used for agricultural purposes, some of which is common land. The northern coastline has fewer beaches and is dominated by a saltmarsh, which overlooks the Loughor Estuary. The northern edge of the estuary is more developed than the southern edge and includes the settlements of Gorseinon, Llanelli and Bury Port.

## Circulation, Movement and Access

- 8.5.21 Key transport, movement and access routes within the study area are indicated on Figure 8.20 and Figure 8.21 and include the following:

### Road and Rail Corridors

- 8.5.22 The key road and rail corridors within 15 km of the proposed development include:

- The M4 Motorway. This extends broadly through the study area terminating to the west at Pont Abraham, (Junction 49) and continuing east towards London. The route adjoins the Y Bryn site boundary at Margam;
- A/Trunk Roads. The detailed study area is bisected by a network of trunk roads providing connectivity to the valleys and coastal plains. These include the A48 Trunk Road, the A465 Heads of the Valleys Road to the north and the A4067 to the west; and
- Railways. The Swansea to London Paddington Mainline Railway extends across the coastal plain broadly to the west of the proposed development. There are also local commuter routes, including lines extending along the Neath Valley, the Llynfi Valley to Maesteg and Vale of Glamorgan line from Bridgend to Porthcawl and Barry.

### National Trails/Long Distance Footpaths

- 8.5.23 National trails/long distance footpaths within the study area include:

- The Wales Coast Path. This is a 1400 km continuous walking route around the entire coast of Wales and runs as near to the coast as legally and practically possible;
- St Illtyd's Walk. A long distance (approx. 103 km) walk from Pembrey to Margam across varied terrain, canals, woodlands and gentle hills crossing the rivers Loughor, Tawe, Neath and Afan. The walk links with the Coed Morgannwg Way at Margam giving access to the Rhymney Valley Ridgeway Walk and Taff Trail. The walk celebrates St Illtyd who flourished in the latter part of the 5<sup>th</sup> and beginning of the 6<sup>th</sup> century and was held in high veneration in Wales;
- Ogwr Ridgeway Walk. This 21 km route forms part of a long ridge walk across South West Wales and extends immediately along the south-eastern boundary of the southern section of the site for approximately 700 m as the route passes Moel Ton-mawr. The route links the Taff-Ely Ridgeway Walk (Ffordd y Bryniau) with the Coed Morgannwg Way. It largely follows the tops of the southern Lower Pennant Sandstone ridge from Mynydd y

Gaer and Bryn y Wrach, to Mynydd Baeden and Mynydd Margam, taking in the valleys of the Ogwr Fawr and Fach, Garw and Llynfi;

- Taff Ely Ridgeway Walk. A small section of this falls within the study area, linking with the Ogwr Ridgeway Walk at Mynydd Maendy. It comprises a mixture of footpaths, bridleways and lanes following the line of hills extending to Caerphilly Common in the east;
- Valeways Millennium Heritage Trail. A small section of this route falls within the study area to the south of Bridgend. This trail forms a circular route around the Vale of Glamorgan through landscapes of historical and scenic interest, with inland and coastal sections, including the Glamorgan Heritage Co;
- Gower Way. This route runs 56 km from Rhossili at the extreme south-west of the Gower Peninsula, through to Penlle'r Castell in upland Mawr;
- Beacons Way. This route is the official trail of the BBNP Authority in Wales, passing east-west through major ranges of the Black Mountains, the Bannau Brycheiniog and the Black Mountain. It traverses the Beacons between the Holy Mountain, Abergavenny and Llangadog. The route takes in Llanthony, Crickhowell, Llangynidir, Craig Cerrig-gleisiad, Craig-y-nos, Llanddeusant, and Carreg Cennen before finishing at Llangadog;
- Taff Trail. This trail is an 88 km cycle and walking route starting in the south in Cardiff Bay and travelling north to Brecon Theatre. The trail passes through all the towns, villages and localities listed. It is made up of old railway paths, forest paths and canals and follows National Cycle Route (NCR) 8;
- Rhymney Valley Ridgeway Walk. This route extends across the hills encircling the unique and often spectacular scenery of the Rhymney Valley. It follows quiet countryside paths and lanes. Mynydd Machen is the highest point. It links with the Taff-Ely Ridgeway Walk at Caerphilly Common, and in the east is partly coincident with the Sirhowy Valley Walk;
- Sirhowy Valley Walk. This route extends from the built-up fringes of Newport to the mountain ridges of Mynydd Machen and Mynydd Manmoel. The Walk links with the Ebbw Valley Walk near Cwm, as well as the circular waymarked Raven Walk;
- Rhymney River Circular. The Rhymney River Circular Walk is a 14.5 km circular walk around the mid valley area of the River Rhymney, passing through the villages of Machen, Draethen and Michaelston-y-fedw;
- Usk Valley Walk. This route follows the Usk valley upstream past the historic market town of Usk, via riverside, field and woodland paths and some minor roads to Abergavenny and to Brecon via the Monmouthshire and Brecon Canal towpath; and
- Three Rivers Ride. This route extends from Worcestershire through the Black Mountains at the Powys border and terminates near Brecon in the National Park Visitor Centre at Libanus.

### National Cycle Routes (NCRs)

- 8.5.24 The study area contains a network of NCRs. Of note is NCR 04 that connects Fishguard to London. It passes within approximately 100 m of Y Bryn site boundary, as the route extends around the northern facing slopes of Mynydd y Castell. A number of cycle routes extend up the valleys, including NCR 883, NCR884, NCR 885 and NCR 887. Also included in the detailed study area is The Celtic Trail, which is made up of two routes - NCR 4 which goes via the coast, and NCR 47 which is an inland route. Together they form two loops between Fishguard and Carmarthen or between Pontypridd and Newport. The Celtic Trail stretches across the entire breadth of South Wales, from the Irish Sea to the English Border, including sections along the Pembrokeshire coast, through Carmarthenshire, and the South Wales Valleys. The Celtic Trail follows a mixture of traffic-free coastal paths, riverside trails, old railway lines and quiet lanes.

### Open Access Land (CRoW Act)



8.5.25 Extensive areas of Open Access Land, designated under *The Countryside and Rights of Way Act 2000 (CROW Act)* fall within 15 km of the proposed development and with the exception of areas to the access routes, includes all land within Y Bryn site boundary of the proposed development. This Act normally gives the public right of access to land mapped as ‘open country’ (mountain, moor, heath and down) or registered common land. This includes broad areas within and around Y Bryn site boundary and many of the upland plateaux and ridges broadly extending to the north-east as well as within the Bannau Brycheiniog and the ridges and plateaux of the South Wales valleys. It also includes Kenfig Burrows to the south-east, an important area of coastal dunes and other habitat.

## Landscape Designations

8.5.26 A review of relevant key statutory and non-statutory landscape classifications has been carried out as part of this SLVIA. Landscape designations are one of the criteria that are considered when assessing the value of a landscape. All landscapes have some importance, particularly to those people who live and work in them or use them for leisure activities so the qualitative evaluation of landscape is essentially a subjective matter.

8.5.27 Landscape designations provide an indication to the value that national and local government, plus other agencies, attach to various landscape types. Landscapes can be designated by statute, in order to conserve and enhance their natural beauty, and but also be included in policies within development plans.

8.5.28 Within the study area there are a range of national, regional and local designations that have been identified relevant to the landscape and visual character of this study area. The different types of statutory and non-statutory designations found within the overall study area are listed in Tables 8.4 and 8.5 and described in Appendix 8.3: Landscape Designations, and illustrated in Figures 8.7 to 8.10.

**Table 8.4: Statutory designations**

Designation	Level
World Heritage Site (WHS)	International
National Park	National
Area of Outstanding Natural Beauty (AONB)	National
Registered Parks and Gardens of Special Historic Interest	National

**Table 8.5: Non-Statutory designations**

Designation	Level
Landscape of Outstanding /Special Historic Interest in Wales	National
Landscape of Outstanding Historic Interest	National
Landscape of Special Historic Interest	National
Heritage Coast	Regional
Special Landscape Areas (SLA's)	Local
Visually Important Local Landscapes	Local
Country Park	Local

## 8.6 BASELINE CHARACTER ASSESSMENT

### Seascape Landscape Character Areas

8.6.1 Following a review of all five LANDMAP aspect areas in accordance with NRW Guidance Note 46 and published seascape and landscape character assessments, a total of 24 Seascape Character Areas (SCAs) and 158 Landscape Character Areas (LCAs) were identified within the study area. Analysis of the ZTV (refer to Figure 8.1) and other influencing factors including distance and key characteristics of each SCA and LCA identified that from this total number, 18 SCAs and 55 LCAs were carried forward for further detailed assessment. These are listed in tables 8.6 and 8.7.

8.6.2 Potential effects from all SCAs and LCAs excluded from further assessment are not considered likely to experience significant effects on seascape/landscape character as a result of the proposed development. Therefore, these SCAs/LCAs have been excluded from further assessment.

**Table 8.6: Seascape Character Areas taken forward for Assessment**

SCA	Name
02	Carmarthen Bay East
03	Bury Inlet and Loughor Estuary
06	Oxwich and Port Eynon Bays
07	Pwlldu Head to Mumbles Head
08	Swansea Bay West
09	Swansea Bay East
10	Neath Estuary
11	Margam to Porthcawl
12	Porthcawl
13	Nash Sand Bar
14	Bristol Channel South East
15	Bristol Channel - East
16	Mid Swansea Bay
17	Outer Swansea Bay
18	Offshore Oxwich Point to Mumbles Head
19	Bristol Channel Offshore
21	Glamorgan Coastal Waters and Nash Sands
24	Bristol Channel

**Table 8.7: Landscape Character Areas taken forward for Assessment**

LCA	Name
01	Margam Marsh
02	Margam Burrows
03	Margam Country Park
04	Coedhirwaun

LCA	Name
05	Coedhirwaun and Open Scarp Tops
06	Mynydd Brombil, Mynydd Emroch and Mynydd Dinas
07	Mynydd Margam
08	Goytre Valley
09	Cefn Cethin
10	Mynydd Bycham
11	Cwm Afan and Cwm Pelenna
12	Mynydd Penhydd
13	Foel Trawsnant
14	Foel Fawr
15	Mynydd-y-Gelli
17	Foel Fynyddau
18	Mynydd Resolven, Craig-y-Llyn and Mynydd Ynyscorwg
23	Bryn Mawr, Mynydd Carnllechart, Mynydd y Barren and Mynydd Gellionnen
26	Mynydd Drumau
28	Neath
37	Port Talbot, Sandfields, Baglan and Margam
39	Cwmafan
40	Margam Sands/Aberafan Sands
41	Neath Estuary Mouth
42	Llangynwyd Rolling Uplands and Forestry
43	Llynfi Valley Floor and Lower Slopes
44	Llynfi and Garw Uplands and Forestry
45	Bettws Settled Farmland
46	Garw Valley Floor and Lower Slopes
47	Mynydd Llangeinwyr Uplands
48	Ogmore Valley Floor and Lower Slopes
49	Ogmore Forest and Surrounding Uplands
50	Hirwaun Common and Surrounding Ridges
52	Merthyr Mawr Farmland, Warren and Coastline
53	Newton Down Limestone Plateau
54	Porthcawl Coastline and Settled Farmland
55	Kenfig Dunes and Coastline

LCA	Name
56	Cefn Cribwr Ridge and Settled Farmland
57	Maesteg
61	Pyle
62	Northern Vale Lias Slopes
63	Heritage Coast Hinterland
64	Norton Down
65	Ogmore Down
66	Alun/St. Brides Valley
67	Ewenny Valley
68	Swansea Bay
73	Rhyd-y-Pandy
79	Mynydd Maendy
105	Pentwyn Mawr
106	Mynydd Uchaf and Mynydd Garth
112	Mynydd Du
113	Fforest Fawr
145	Upper Thaw Valley
148	Lias Plateau

## 8.7 POTENTIAL EFFECTS

### Potential Effects - Construction Stage

8.7.1 The construction effects on landscape character and visual amenity are described in Appendix 8.7: Potential Effects Construction Stage. The assessment identified that there were no significant effects on seascape landscape character or visual amenity during this phase of the work.

### Potential Effects - Operational Stage

8.7.2 This section looks at both the effects on seascape and landscape character and the visual effects during the operational phase of the proposed development. It is anticipated that the operational life of the proposed development would last for up to 50 years. The assessment also considers a 50 m micro-siting allowance for all infrastructure.

#### Potential Effects on Seascape Character

8.7.3 The significance of effects on seascape character as a result of the proposed development during the operational phase has been assessed against the significance criteria defined in Appendix 8.1: SLVIA Methodology and assessed in Appendix 8.8: Potential Effects on Seascape Landscape Character. It has been identified that there are no significant effects on seascape character, within the study area.

#### Potential Effects on Landscape Character

8.7.4 The significance of effects on landscape character as a result of the proposed development during the operational phase, has been assessed against the significance criteria defined in Appendix 8.1: SLVIA Methodology.

8.7.5 The following paragraphs, which have been extracted from Appendix 8.8: Potential Effects on Seascape Landscape Character, identifies the LCAs from where individual effects on landscape character are predicted to be significant as a result of the proposed development. The assessment of effects on landscape character where both individual and cumulative effects are predicted to be not significant can also be found in Appendix 8.8: Potential Effects on Seascape Landscape Character.

### **LCA 03 Margam Country Park**

#### *Susceptibility of Landscape Receptors to Change*

8.7.6 This is a high quality, multi-layered landscape of outstanding historical interest and a significant tourist attraction, functioning as a Country Park. The landscape comprises well-wooded and treed areas with open grazed land and a distinctive mix of elements including lakes, historic buildings and parkland that contribute to the character. The scarp slope encloses the lower-lying areas to the south, although there are a variety of views throughout the park, includes long views over the coastal plain to the south from the scarp. Key visible man-made elements include the extensive industrial development on the coastal plain, including the steel works. The M4 motorway (together with background noise) and operational wind turbines at Newlands Farm, Stormy Down, Newton Down and Mynydd Brombil are also defining characteristics. Overall, the susceptibility of landscape receptors to change is considered to be high.

#### *Landscape Value*

8.7.7 A landscape that is considered to be of high scenic and historic value, with a distinct sense of place, reinforced by extensive views and visitor attractions. Values relating to tranquillity and wildness are eroded by tourist facilities and infrastructure, as well as background noise from the M4 motorway. The regional and national importance of this LCA is reflected by multiple landscape designations. It is designated as a Registered Park and Garden, Country Park and is within a SLA. The Margam Mountain Landscape of Special Historic Interest Landscape designation also extends through the LCA. Overall, the landscape value is considered to be outstanding to high.

#### *Landscape Sensitivity*

8.7.8 The landscape is designated at a regional and national level and contains landscape characteristics, including historic features, that may have a high sensitivity to wind farm development of the scale proposed. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be high.

#### *Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

8.7.9 Impacts on landscape character will be indirect and visibility of the proposed development within the wider landscape will be variable throughout this LCA. Above the scarp slope on the rolling upland plateau to the north and east of this LCA the landscape is expansive, visually open and simple, comprising a matrix of coniferous forestry, some recently felled, and upland pasture. Across the plateau from the top of the scarp slope, the turbines on Mynydd Brombil are an existing feature of the rolling plateau. The proposed development will be seen at close range and will form a large-scale feature. However, it will not interfere with the spectacular panoramic primary views south off the edge of the scarp across the lower lying parkland and the wider coastal plain. This is a key characteristic of the upland section of the LCA. In this context, the scale of the proposed development would be likely to be perceived as more proportional to the expansive and open scale of the upland plateau. On and below the wooded scarp slopes, the landscape is visually enclosed and there will be no visibility of the proposed development. The Brest Plantation will remain a distinctive feature on the scarp slope. Further to the south-west, beyond the visual enclosure provided by the wooded scarp slope, views of the proposed development will be a potentially influencing, although an indirect feature within the landscape. However, this lower lying area is well-vegetated with parkland trees and woodland and possesses a south facing aspect with intentionally framed views channelled south towards the coastal plain. Potential secondary views of the proposed development are available looking north, where mature woodland and trees allow. More open areas of the parkland such as to the rear of

Margam Castle or extending to the east of the LCA, will allow some localised visibility of the proposed turbines. However, the proposed development, where visible, will be an immediately apparent feature within views north. However, visibility of the proposed development will be localised in its extent and where visible, it will occupy only a small proportion of the overall view. Turbines will also not be a uniquely modern influence on the park in its setting and visual relationships with the industrial and developed coastal region. On balance, the magnitude of impact is evaluated as medium to high

#### *Significance of Effects on Landscape Character (including operational and under construction wind farms)*

8.7.10 The landscape is considered to be of high sensitivity and the magnitude of impacts medium to high. Significance of effects on landscape character is predicted to be moderate-substantial (significant).

### **LCA 04 Coedhirwaun**

#### *Susceptibility of Landscape Receptors to Change*

8.7.11 A medium scaled landscape, area that contains a mix of landscape elements, including agricultural land, settlements/housing developments, a golf course and an operational single turbine at Newlands Farm. The area is intimate in scale and well vegetated with woodland mature tall hedges. There are restricted views out from this LCA. It is considered to be of moderate quality and therefore the landscape may be capable of absorbing some new elements of the type of development proposed without affecting its overall character. The susceptibility of landscape receptors to change is considered to be medium.

#### *Landscape Value*

8.7.12 The LCA has overall moderate scenic quality, although the eastern parts of the LCA is considered to be of higher scenic quality, which is reflected its designation as a SLA. It has a local sense of place and is noted for its historic landscape interest, which includes evidence of Roman, medieval, and post-medieval activity and landscape habitat interests, with outstanding LANDMAP values for aspect areas within this LCA. The area is not associated with recreation. Overall, the landscape value is considered to be medium to high.

#### *Landscape Sensitivity*

8.7.13 The landscape is designated at a local level. It contains a range of characteristics with varying degree of tolerances and sensitivities to wind farm development of the scale proposed, ranging from the more sensitive historic features to urban development, which is considered less sensitive. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be medium to high.

#### *Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

8.7.14 Impacts on landscape character will be indirect and is predicted to be greater within the southern and western half of the LCA, where the topography is generally lower lying and where the landscape has a visual relationship with the elevated land to the north. Within these areas there may be a partial change in character following construction of the proposed development, as wind turbines will have a greater influence. Change may occur over a notable area. Within the more sensitive eastern and northern parts of the LCA, which has a stronger visual relationship with land to the south, impacts will be reduced by the adjacent slopes of Moel Ton Mawr that contain views to land to the north. Therefore, within these areas it is predicted that any change in character will be slight. Overall, the majority of key characteristics will remain unaffected and the agricultural landscape will remain as a key defining element. Magnitude of impacts is considered to be medium.

#### *Significance of Effects on Landscape Character (including operational and under construction wind farms)*

8.7.15 The landscape is considered to be of medium to high sensitivity and the magnitude of impacts medium. Significance of effects on landscape character is predicted to be moderate. Effects are considered to be significant as there will be an increase the influence of wind farm development across a notable proportion of the LCA.

## LCA 06 Mynydd Brombil, Mynydd Emroch and Mynydd Dinas

### *Susceptibility of Landscape Receptors to Change*

- 8.7.16 A simple landscape pattern of moderate scenic quality, which is considered to be in poor condition, although the steep scarp tops, which are covered by bracken are seen as a locally important landscape feature, with vast panoramic views, which forms a key backdrop to the coastal plain and the wider seascape. Existing wind turbines are located on Mynydd Brombil and solar development is located on Mynydd Emroch. This is a landscape that is considered to be able to accommodate some degree of change of the type of development proposed without affecting its overall character. The susceptibility of landscape receptors to change is considered to be medium to low.

### *Landscape Value*

- 8.7.17 A landscape that is locally distinctive and considered to be of moderate scenic quality. The LCA falls within the locally designated Margam SLA and the scarp slope has a high value for LANDMAP visual and sensory aspect area. However, the more open plateaux to the east of the LCA are more moderate in value. The area is noted for its historic interest which includes evidence of Bronze Age, Iron Age and medieval activity as reflected in the outstanding LANDMAP values for Historic Landscape aspects areas that fall within this LCA. An area of moderate value in terms of landscape habitats with some Biodiversity Action Plan (BAP) habitats present to low land areas, The area is not associated with recreation. Overall, the landscape value is considered to be medium.

### *Landscape Sensitivity*

- 8.7.18 The landscape is designated at the local level, and contains some landscape characteristics, such as the simple landscape pattern and the presence of existing renewable energy developments that may be tolerant to wind farm development of the scale proposed. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be medium to low.

### *Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

- 8.7.19 The perception of turbines will theoretically extend across a wide proportion of the LCA, however apart from the construction of the new road and upgrade to existing roads on Mynydd Brombil, impacts within the LCA will be indirect. The south-eastern edge of the LCA lies adjacent to the boundary of the proposed development and although this part of the LCA includes the turbines to Mynydd Brombil Wind Farm, it is predicted that the proposed development will result in wind turbines becoming an increasingly influencing feature within the wider landscape, both within this part of the LCA and extending north towards Mynydd Dinas. There may be a slight reduction in the sense of remoteness, however this is already impacted upon by the visual connection with the surrounding urban and industrial areas to the south, which will be retained. Fundamentally however, the key higher value characteristics of this LCA, including the steep scarp slopes that are vegetated with bracken and which form a backdrop to the coastal plain will remain as the key defining elements following construction of the proposed development. Magnitude of impact, on balance, is considered to be medium to high.

### *Significance of Effects on Landscape Character (including operational and under construction wind farms)*

- 8.7.20 The landscape is considered to be of medium to low sensitivity and the magnitude of impacts medium to high. Significance of effects on landscape character is predicted to be moderate. Significant effects are considered to be confined to the plateaux above the scarp slope to the east of the LCA. These areas are more open in character, in contrast with the wooded scarp slopes within the western parts of the LCA. On balance the significance of effects are considered to be moderate and significant.

## LCA 07 Mynydd Margam

### *Susceptibility of Landscape Receptors to Change*

- 8.7.21 A large scale, upland landscape, with a simple pattern that is dominated by coniferous productive forestry, predominantly consisting of spruce and the occasional pine, which may be easily restored. There are also areas of larch although large sections have been felled due to infection by *Phytophthora ramorum*. The combination of these species provides some visual variety despite the extensive cover of vegetation. The forestry provides a backdrop to the skyline from locations to the south and the west. This is a landscape that is considered to be able to accommodate some degree of change from the type of development proposed, without changing the overall character. The susceptibility of landscape receptors to change is considered to be medium.

### *Landscape Value*

- 8.7.22 The forestry provides a sense of tranquillity and a sense of isolation despite the proximity of urban development, especially to the south. The landscape is considered to be of moderate scenic quality. However, the landscape is considered to be a typical upland coniferous productive forest that is common across much of the area and therefore not distinctive in terms of its sense of place. The landscape, which has been locally designated as a SLA, also has a number of historical associations that include Bronze Age cairns and barrows, plus Iron Age hill forts that form a chain across the southern edge of Margam Mountain, enclosures and habitation sites. More modern influences are also noted by the remains of a WWII radar station. Subsequently land within the LCA has been designated as a Landscape of Special Historic Interest. A short section of St Illtyd's Walk and the Ogwr Ridgeway Walk pass through the eastern and northern edges of the LCA, however the LCA is not noted for its tourist associations. Overall, the landscape value is considered to be medium.

### *Landscape Sensitivity*

- 8.7.23 The landscape is designated at a national and local level; however, it contains some landscape characteristics, most notably the large scale of the landscape that may be tolerant to wind farm development of the scale proposed. The combination of susceptibility of receptors to change and landscape value indicates that on balance, the landscape sensitivity will be medium.

### *Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

- 8.7.24 Of the 18 turbines proposed, 13 are located within the LCA and therefore impacts on landscape character will be direct. The introduction of the turbines into the landscape, together with selective felling of trees in order to accommodate the turbines and associated infrastructure, will result in a large scale alteration to the existing character of the landscape, as wind turbines will be a major and defining new feature. However, large tracts of forestry will be retained, subject to future and replanting programme for this productive forest. Therefore, it is predicted there will not be a complete change in character as coniferous forestry will remain as a key defining feature, albeit together with wind turbine development. Magnitude of impacts is considered to be very high.

### *Significance of Effects on Landscape Character (including operational and under construction wind farms)*

- 8.7.25 The landscape is considered to be of medium sensitivity and the magnitude of impacts very high. Significance of effects on landscape character is predicted to be substantial (significant).

## LCA 08 Goytre Valley

### *Susceptibility of Landscape Receptors to Change*

- 8.7.26 An enclosed valley, which provides a sense of isolation from surrounding areas, and which is considered to be of high scenic value. The mix of woodland and agricultural fields provides a pleasing pattern to the landscape and adds to the sense of enclosure. The north eastern section of the LCA is more elevated and more open in character and contrasts with the intimate wooded incised valley to the south west. The susceptibility of landscape receptors to change overall is considered to be medium.

*Landscape Value*

8.7.27 A landscape of high scenic quality, with a distinct and strong sense of place. The area is locally designated as a SLA, although the area is not associated with recreation. Overall, the landscape value is considered to be medium to high.

*Landscape Sensitivity*

8.7.28 The landscape is designated at a local level, and it contains some key landscape characteristics that may be highly sensitive to wind farm development of the scale proposed, including the sense of tranquillity that is created by the enclosure of the valley. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be medium to high.

*Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

8.7.29 Due to topography and the dense coniferous and other forestry that dominates much of the lower section of the LCA, there is a limited relationship with the wider landscape and there will be no perceptible change in character in these areas. However, more elevated areas of the LCA to the north east are more visually open. From these areas, wind turbines may have a greater influence on the character of the landscape to the extent that there will be a partial localised change. However, overall, there will be no fundamental change in character from the more enclosed sections of the LCA to the south west. Within these areas, the sense of enclosure, tranquillity and isolation will be retained. On balance, the magnitude of impacts is considered to be medium.

*Significance of Effects on Landscape Character (including operational and under construction wind farms)*

8.7.30 The landscape is considered to be of medium to high sensitivity and the magnitude of impacts will be medium. Significance on landscape character is predicted to be moderate. On balance, effects are considered to be significant, although these will be confined locally to the visually open areas to the north east. Within the wooded enclosed valley there will be no perceptible change.

**LCA 09 Cefn Cethin**

*Susceptibility of Landscape Receptors to Change*

8.7.31 This upland landscape is distinguished by a mix of land-uses including the settlement of Bryn, a golf course, productive woodland and areas used for upland grazing. The LCA is open, visually exposed and the range of land-uses is discordant and reduces cohesion. The landscape may be able to accommodate some degree of change of the type of development proposed without affecting its overall character. The susceptibility of landscape receptors to change is considered to be medium to low.

*Landscape Value*

8.7.32 This is a landscape of limited scenic quality containing a discordant mix of land-uses that contribute to an incoherent character. Detractors include the busy A4282 road corridor and pylons, to the east. The eastern fringes possess increased scenic value and are within the Margam SLA. In addition, St Illtyd's Long Distance Path extends through the LCA and offers potential for recreation, although this is not considered likely to be a primary characteristic of the LCA. Overall, the landscape value is considered to be medium to low.

*Landscape Sensitivity*

8.7.33 The landscape is designated at a local level, reflecting some increased scenic value to the east. Elsewhere, scenic value is low and the area is notable for a discordant mix of land uses. Character overall is incoherent and offers limited tourist attraction. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be medium to low.

*Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

8.7.34 With the exception of the access road, impacts on landscape character within this LCA will be indirect and therefore there will be no overall change in the character of the landscape in terms of its open nature, landcover and management, including the golf course. Changes within the character will be restricted to changes in the aesthetic quality of the landscape. Within northern parts of the LCA, the landscape possesses a south-facing aspect and views from this higher land will extend south over the shallow Ffrwd Wylt Valley and across to the wooded Mynydd Bach. All 13 turbines within the southern section of the proposed development will theoretically be visible from elevated locations. The visual influence of the turbines on the character of the landscape will reduce within lower lying areas of the LCA, such as locations on the B4282 and from the Royal Oak heading towards Maesteg, due to topography and screening from existing forestry. Visibility of the northern section of the proposed development will be more pronounced from the eastern sections of the LCA and although visually prominent, they will be juxtaposed against the existing electricity pylons that form a vertical man made structure in the landscape. These pylons are occasionally located on prominent hills, including Mynydd Penhydd. The combination of the turbines and existing electricity pylons may add to the sense of discordance and incoherence that prevails in this LCA; however, the introduction of the turbines will not alter the key defining characteristics of this LCA. The magnitude of impact is evaluated as medium to high.

*Significance of Effects on Landscape Character (including operational and under construction wind farms)*

8.7.35 The landscape is considered to be of medium to low sensitivity and the magnitude of impacts medium to high. Significance of effects on landscape character is predicted to be moderate (significant). On balance, effects are considered to be significant, as although the landscape contains a mix of elements that will be retained, the proposed development will indirectly add to the sense of discord that exists.

**LCA 10 Mynydd Bycham**

*Susceptibility of Landscape Receptors to Change*

8.7.36 A broadly open, simple, medium scale sized sandstone plateau of moderate quality that is characterised by a mosaic of fields used for grazing and coniferous woodland, which provides a sense of cohesion. The area feels exposed and isolated in places. The landscape may be able to accommodate some degree of change of the type of development proposed without affecting its overall character. The susceptibility of landscape receptors to change is considered to be medium.

*Landscape Value*

8.7.37 A landscape of moderate scenic quality that is unlikely to be perceived as distinctive, although it does include historic features of note, including the remains of an Iron Age Hillfort (Pen-y-Castell). These are reflected in the high and outstanding values for LANDMAP historic landscape aspect areas within the LCA. The area is not noted for its ecological value, although there are some BAP habitats present. The area does not include any tourist attractions, although the northern facing slopes of Mynydd Emroch falls within the Margam SLA. Overall, the landscape value is considered to be medium.

*Landscape Sensitivity*

8.7.38 The landscape is designated at a local level, and it contains a range of characteristics some of which may be tolerant to wind farm development of the scale proposed ranging from the more sensitive historic features to urban development, which is considered less sensitive. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be medium.

*Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

8.7.39 The more elevated sections of this saddle have a strong relationship with adjacent upland areas, including Mynydd Penhydd and Margam to the west. Large scale forestry provides some enclosure although the proposed development will have a strong influence across a notable proportion of the more elevated sections of the LCA.

Key characteristics such as exposure and isolation will be reduced over a relatively wide area. Magnitude of impacts is considered to be high.

*Significance of Effects on Landscape Character (including operational and under construction wind farms)*

The landscape is considered to be of medium sensitivity and the magnitude of impacts high. Significance of effects on landscape character is predicted to be moderate-substantial, (significant).

**LCA 12 Mynydd Penhydd.**

*Susceptibility of Landscape Receptors to Change*

8.7.40 A rolling, upland plateau dominated by large tracts of coniferous productive forestry, predominantly larch and spruce that is considered to be of medium to low scenic quality, though extensive areas of larch have been felled due to infection by *Phytophthora ramorum*. It is a landscape that is not rare or distinctive in terms of its character and where restoration of the landscape may be possible. The landscape may be able to accommodate some degree of change of the type of development proposed without affecting its overall character. The susceptibility of landscape receptors to change is considered to be medium.

*Landscape Value*

8.7.41 A landscape of moderate to low scenic quality, however the landscape incorporates a section of St. Illtyd's Walk National Trail and areas of Afan Forest Park, including the Penhydd and Blue Scar Mountain Bike Trails (MTB) Trails. Therefore, the landscape is used for recreational purposes, although coniferous forestry remains as the primary use. The LCA is not covered by any landscape designations and although there is evidence of Bronze Age, Iron Age and Medieval activity, the landscape is not designated for its historic associations. Overall, the landscape value is considered to be medium.

*Landscape Sensitivity*

8.7.42 The landscape has recreational value; however, it is not designated, and it contains characteristics, some of which may be tolerant to wind farm development of the scale proposed, most notably the scale of the landscape and the productive forestry. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be medium.

*Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

8.7.43 Of the 18 turbines proposed, 5 are located within the LCA and therefore impacts on landscape character will be direct. The introduction of the turbines into the landscape, together with selective felling of trees in order to accommodate the turbines and associated site infrastructure, will result in a major alteration to the existing character of the landscape, as wind turbines will be a major and defining new feature. However, direct impacts will be restricted to a small extent of the overall areas within the LCA. Therefore, it is predicted there will not be a total change in character as coniferous forestry, subject to future and replanting programme for the productive forest, will remain as a key defining feature, albeit together with wind turbine development. Magnitude of impacts is considered to be high.

*Significance of Effects on Landscape Character (including operational and under construction wind farms)*

8.7.44 The landscape is considered to be of medium sensitivity and the magnitude of impacts high. Significance of effects on landscape character is predicted to be moderate – substantial (significant).

**LCA 13 Foel Trawsnant**

*Susceptibility of Landscape Receptors to Change*

8.7.45 A simple, moderate sized, upland landscape that has a sense of bleakness and exposure. It is a landscape of moderate scenic quality, but one that is not considered to be rare within the study area. The combination of

attributes is considered capable of absorbing some degree of change from the type of development proposed. The susceptibility of landscape receptors to change is considered to be medium.

*Landscape Value*

8.7.46 The land within the LCA is designated as a SLA, however it is considered to be of moderate scenic quality and a with moderate sense of place. Areas of purple moor grass, rush pasture and upland heath that are present, have been designated as BAP priority habitats and there is evidence of human activity dating from the Bronze Age. The LCA contains no tourist attractions. Overall landscape value is considered to be medium.

*Landscape Sensitivity*

8.7.47 The landscape is designated at a local level and contains some key characteristics, such as the simple form of the landscape that may be robust to wind farm development of the scale proposed. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be medium.

*Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

8.7.48 Indirect impacts on landscape character will potentially extend over extensive proportion of the LCA, however due to topography any impacts will be as a result of the proposed turbines within the northern section only, due to topography screening views to the proposed turbines within the southern section. There may be a partial change in landscape character following the construction of the proposed development, as wind turbines will be a key, although indirect influence particularly along much of the south western edge. However, impacts will be indirect and the key landscape characteristics and important habitats within the LCA, including areas of purple moor grass, rush pasture and upland heath, will all remain unaffected. Magnitude of impacts is considered to be medium to high.

*Significance of Effects on Landscape Character (including operational and under construction wind farms)*

8.7.49 The landscape is considered to be of medium sensitivity and the magnitude of impacts medium to high. Significance of effects on landscape character is predicted to be moderate. On balance, effects are considered to be significant. The impacts will partially reduce key characteristics relating to the sense of openness and remoteness.

**LCA 17 Foel Fynyddau**

*Susceptibility of Landscape Receptors to Change*

8.7.50 An attractive, medium scaled, exposed, and open landscape with a varied mix of landscape features, which is typically used for upland grazing and productive forestry. However, telecommunication masts to the summit of Foel Fynyddau partly reduces the sense of remoteness and wilderness. Visual connection with adjacent landscape including wind farms of Pen y Cymoedd, Ffynnon Oer and Mynydd Brombil, plus industrial areas along the coastal plain of Swansea and Port Talbot. Therefore, this is a landscape that is considered to be able to absorb some degree of change of the type of development proposed. The susceptibility of landscape receptors to change is considered to be medium.

*Landscape Value*

8.7.51 A landscape of moderate scenic quality and with a moderate sense of place. The landscape is not covered by any statutory or non-statutory landscape designations. There are areas of open access land within the LCA, although there are no tourist attractions associated with it. However, the area is noted for its historic value, which includes evidence activity ranging from the Bronze Age to present day. Overall, the landscape value is considered to be medium.

*Landscape Sensitivity*

8.7.52 The landscape contains a range of characteristics, some of which may be tolerant to wind farm development of the scale proposed. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be medium.

*Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

8.7.53 Indirect impacts on landscape character will potentially extend across the eastern facing slopes within this LCA, which include Foel Fynyddau, Brynbryddan and Mynydd y Gaer. The character of the landscape within these areas is already directly and predominantly indirectly influenced by manmade structures, including telecommunication masts, wind farms and urban development. Following the construction of the proposed development, wind turbines will have a more prominent influence within the wider landscape, to the extent that there may be a moderate change in the character of these parts of the LCA. However, the sense of exposure and openness, plus the upland landscape used for grazing and coniferous forestry that are currently key elements of the LCA, will all be retained following construction of the proposed development. Magnitude of impact, on balance, is considered to be medium.

*Significance of Effects on Landscape Character (including operational and under construction wind farms)*

8.7.54 The landscape is considered to be of medium sensitivity and the magnitude of impacts medium. Significance of impacts on landscape character is predicted to be moderate. On balance, effects are considered to be significant, the proposed development will increase the influence of man-made elements within this LCA.

**LCA 39 Cwmafan**

*Susceptibility of Landscape Receptors to Change*

8.7.55 A small scale, enclosed settlement within the base of the valley, consisting of a mix of residential, industrial and commercial developments. The valley sides create a sense of shelter, however newer development encroaches on to the valley side, which is visually detracting. Overall, the settlement has a discordant pattern and scenic quality is considered to be low. The majority of attributes will be robust/tolerant of change from the type of development proposed. The susceptibility of landscape receptors to change is considered to be low.

*Landscape Value*

8.7.56 A landscape of low scenic quality and with a predominantly weak sense of place. NCR 887 passes through the LCA, however it does not contain any tourist attractions and is not covered by any statutory or non-statutory landscape designations. Overall, the landscape value is considered to be medium.

*Landscape Sensitivity*

8.7.57 The landscape is not designated and contains key characteristics, including the commercial and industrial elements that may be tolerant to wind farm development of the scale proposed. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be medium to low.

*Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

8.7.58 Impacts on landscape character will be indirect although potentially extend across a wide proportion of the more elevated western sections of the LCA. Following construction of the proposed development, it is predicted that the urban character of the LCA will be retained, however there will be a partial change in character, as wind farm development will become a notable feature. However, any change will not be to the extent that the proposed development becomes a key defining element of the LCA. Magnitude of impacts is considered to be medium to high.

*Significance of Effects on Landscape Character (including operational and under construction wind farms)*

8.7.59 The landscape is considered to be medium to low sensitivity and the magnitude of impacts medium to high. Significance of effects on landscape character is predicted to be moderate. On balance these are considered to

be significant, evident within the western section of the LCA, due to the increased influence of wind farm development on key characteristics.

**LCA 42: Llangynwyd Rolling Uplands and Forestry**

*Susceptibility of Landscape Receptors to Change*

8.7.60 A large scale, open, upland landscape, consisting of pastoral fields, rough grazing with productive coniferous woodland, most notably on the higher ground. The area has an aspect generally towards the north-east and is contained by the dissected relief and extensive productive forestry and other woodland. It is remote with scattered dwellings farmsteads and the village of Llangynwyd. The susceptibility of landscape receptors to change is considered to be medium.

*Landscape Value*

8.7.61 A landscape of high scenic quality and with a strong sense of place. The LCA contains some historic features of national importance, ranging from the prehistoric era through to the post-medieval period and a small proportion of the western fringes of the LCA falls within the Margam Mountain Landscape of Special Historic Interest. The Ogwr Ridgeway Walk also extends through this LCA. A proportion of the LCA has been locally designated as a SLA. The area has some tourist associations, but recreation is not the primary attraction. Overall, the landscape value is considered to be medium to high.

*Landscape Sensitivity*

8.7.62 The landscape is designated in part at a local and national level. The areas of coniferous forestry on higher ground are likely to be more tolerant to wind farm development than the more pastoral and therefore more complex, lower lying areas to the east. Therefore, it is considered that the LCA contains a range of characteristics with varying degree of tolerances and sensitivities to wind farm development of the scale proposed. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be medium to high.

*Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

8.7.63 There will be a limited direct impact on landscape character as a result a single turbine (T11) and associated infrastructure. Impacts will only affect a very small proportion of the overall LCA and the works associated with the development will replace productive forestry, considered to be of low value. Impacts will be generally more extensive and of greater magnitude on the higher ridges and plateau areas broadly within the west of the LCA. There may be a greater perceptual influence from wind turbines, however the proposed development will be proportional in scale to the simple, large scale, upland landscape. Perception of turbines will be more fragmented on the slopes and dissected valleys to the east and impacts will be generally reduced in these areas. These areas have a strong aspect to the north-east and panoramic views will be available across the Llynfi Valley. This characteristic will be unaffected. To the south, of the LCA the landscape slopes to the south and there is no visibility. To the north of the LCA the valley side is steep and east facing and visibility towards the proposed development is reduced. On balance, impacts are considered to be medium.

*Significance of Effects on Landscape Character (including operational and under construction wind farms)*

8.7.64 The landscape is considered to be medium to high sensitivity and the magnitude of impacts medium. Significance of effects on landscape character is predicted to be moderate. Effects are considered to be significant as there will an apparent increase in the direct and indirect influence of wind farm development on the character of this LCA.

### LCA 43: Llynfi Valley Floor and Lower Slopes

#### *Susceptibility of Landscape Receptors to Change*

- 8.7.65 A small scale, enclosed narrow river valley, consisting of gently rolling agricultural fields, broadleaved woodlands, grassland and scrub. The A4063 that passes along the valley floor and the large paper mill dominate the area, however this contrasts with the undeveloped slopes and tributary valleys that contain dense woodland and provide a sense of tranquillity. The LCA has a strong relationship with the adjoining LCAs due to intervisibility between them. Scenic quality is considered to be moderate. This is a landscape where the majority of attributes, particularly to the valley sides are unlikely to withstand change from the type of development proposed, however areas along the valley floor may be more tolerant change. The susceptibility of landscape receptors to change is considered to be medium to high.

#### *Landscape Value*

- 8.7.66 A landscape of moderate scenic quality and with a moderate sense of place. The LCA contains some notable historic features, including Coytrahen House, which forms part of the Grade II, Coytrahen Registered Park and Garden. An area within the southern half of the LCA falls within land designated as a SLA. The landscape value is considered to be medium.

#### *Landscape Sensitivity*

- 8.7.67 The landscape is designated at a national and local level and contains a mix of key characteristics, some of which may be tolerant to wind farm development of the scale proposed and other less tolerant. The combination of susceptibility of receptors to change and landscape value indicates that landscape sensitivity will be medium to high.

#### *Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

- 8.7.68 Impacts on landscape character will in theory be restricted to the northern half of the LCA and areas including the valley floor and the A4063. From these areas there is a visual connection with the wider landscape, including land to the north-east, however dense vegetation prevents any such connection to the north-west and towards the proposed development. From more elevated locations within the far north-western corner of the LCA, the landscape is more open in character and there is a visual connection with the wider landscape and towards the proposed development. From these areas there may be a moderate loss to key elements of the landscape character as wind farm development is an additional feature of the wider landscape, resulting in a slight reduction in the sense of remoteness and tranquillity. These changes however will be localised within the context of the overall LCA as a whole. Magnitude of impacts is considered to be medium.

#### *Significance of Effects on Landscape Character (including operational and under construction wind farms)*

- 8.7.69 The landscape is considered to be medium to high sensitivity and the magnitude of impacts medium. Significance of effects on landscape character is predicted to be moderate. On balance, effects are considered to be significant. Although any impacts will be indirect and changes in character will affect a localised proportion of the LCA, there will be some increased influence of wind farm development, although these will be contained within more open sections this attractive landscape only.

### LCA 44: Llynfi and Garw Uplands and Forestry

#### *Susceptibility of Landscape Receptors to Change*

- 8.7.70 A large-scale, undulating, open upland landscape that has a strong visual connection with the surrounding landscape and that includes coniferous productive forestry, broadleaved woodland and areas of rough grazing. The landscape is of moderate scenic quality that has a sense of remoteness/wilderness; however, this is reduced by the existing turbines of Llynfi Afan Renewable Energy Park (REP) Wind Farm which are partly located within the LCA and by the adjacent wind farms including Ffynnon Oer, Pen y Cymoedd and Taff Ely. It is considered that

the combination of attributes that define the landscape can absorb some degree of change from the type of development proposed. The susceptibility of landscape receptors to change is considered to be medium.

#### *Landscape Value*

- 8.7.71 A landscape of moderate scenic quality with a moderate sense of place. The LCA includes 'The Spirt of Llynfi Woodland', a community woodland on the site of the former Coegnant Colliery, which includes the 'The Keeper of the Colliery' statue. This is a local tourist attraction, although recreation is not the key feature of the LCA. Land within the LCA is not covered by any statutory or non-statutory landscape designations, however it includes important prehistoric and medieval archaeological features. Overall, the landscape value is considered to be medium.

#### *Landscape Sensitivity*

- 8.7.72 The landscape is not designated; however, it contains key characteristics, some of which may be sensitive to wind farm development of the scale proposed, including the open landscape, sense of remoteness and industrial heritage features. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be medium.

#### *Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

- 8.7.73 Indirect impacts on landscape character will potentially extend across a wide area of the LCA and may result in a loss of key elements of the existing character that may lead to a moderate change in character. This will be most notably through a further reduction in a sense of wilderness and remoteness, as the proposed development will be an indirect, although strong influencing element on the LCA. However, all other key landscape characteristics, including the sense of openness, with extensive areas of rough grazing/woodland, plus the important industrial heritage features, will all remain intact. On balance, the magnitude of impacts is considered to be medium.

#### *Significance of Effects on Landscape Character (including operational and under construction wind farms)*

- 8.7.74 The landscape is considered to be medium sensitivity and the magnitude of impacts medium. Significance of effects on landscape character is predicted to be moderate. On balance, effects are considered to be significant. Although any impacts will be indirect, they will affect broad open areas to the west of the LCA and there will be some increased influence of wind farm development to the extent that there will be a partial change to the character, including some reduction in the sense of wilderness and remoteness.

### LCA 45: Bettws Settled Farmland

#### *Susceptibility of Landscape Receptors to Change*

- 8.7.75 A medium scaled, undulating landscape consisting of improved grassland used for agriculture and blocks of broadleaved semi-mature woodland, of medium scenic quality. A largely tranquil landscape, which is eroded slightly by the settlement of Bettws that is prominent on a hill summit. Visual connection with the urban edge of Bridgend and also the adjacent LCAs to the east and west. This is a landscape that may be capable of absorbing some change from the type of development proposed. The susceptibility of landscape receptors to change is considered to be medium.

#### *Landscape Value*

- 8.7.76 A landscape of moderate scenic quality, with a moderate sense of place and is a landscape that is not considered to be particularly rare in terms of its character. The LCA does not contain any tourist attractions and is not covered by any statutory or non-statutory landscape designations. Overall, the landscape value is considered to be medium to low.



*Landscape Sensitivity*

8.7.77 The landscape is not designated, and it contains a range of characteristics with varying degrees of tolerances and sensitivities to wind farm development of the scale proposed. This includes its wooded character and sense of tranquillity that are considered sensitive to change and the urban development of Bridgend, which is less sensitive. The combination of susceptibility of receptors to change and landscape value indicates that on balance landscape sensitivity will be medium.

*Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

8.7.78 Impacts on landscape character will potentially extend across a wide proportion of the LCA, however it is located between 5 km and 10 km from the proposed development and therefore any impacts will be indirect. Following the construction of the proposed development there may be a moderate alteration to the landscape character as wind farm development will be an influencing element on the LCA within the wider landscape that may result in reduction in tranquillity, especially within areas located away from the settlement of Betws. However, the predominantly rural character, including the wooded character, will remain as defining key elements. Magnitude of impacts is considered to be medium.

*Significance of Effects on Landscape Character (including operational and under construction wind farms)*

8.7.79 The landscape is considered to be medium sensitivity and the magnitude of impacts medium. Significance of effects on landscape character is predicted to be moderate (significant). On balance, effects are considered to be significant. Although any impacts will be indirect, they will affect open areas within of the LCA that will increase influence of wind farm development to the extent that there will be a partial change to the character.

**LCA 57: Maesteg***Susceptibility of Landscape Receptors to Change*

8.7.80 An urban landscape set within a medium scale landscape, consisting of a mix of residential, industrial, and commercial developments. The settlement has a discordant pattern and scenic quality that is considered to be low. Some attributes will be robust/tolerant of change from the type of development proposed. On balance, the susceptibility of landscape receptors to change is considered to be medium.

*Landscape Value*

8.7.81 A landscape of low scenic quality and with a predominantly weak sense of place, however it includes some historic features of note dating from the late 19th and early 20th century. NCR 885 passes through the LCA, however it does not contain any tourist attractions and is not covered by any statutory or non-statutory landscape designations. Overall, the landscape value is considered to be medium.

*Landscape Sensitivity*

8.7.82 The landscape is not designated, and it contains key characteristics which will be tolerant to wind farm development of the scale proposed. The combination of susceptibility of receptors to change and landscape value indicates that landscape sensitivity will be medium.

*Magnitude of Impact on Landscape Character (including operational and under construction wind farms)*

8.7.83 Impacts on landscape character will potentially extend across a wide proportion of the LCA, however the dense urban grain that is a key element of the character of the landscape and that creates as sense of enclosure typically prevents any visual connection with the wider landscape. Therefore, from the majority of the LCA it is predicted that the proposed development will result in such minor alteration to the character of the landscape that there will be no perceptible impact. From more elevated locations however, most notably within the eastern half of the LCA, there are views towards the adjacent landscape, and from these locations there may be a large-scale change to the character of the landscape, albeit across a limited area of the LCA, as the currently undeveloped character of

the ridgeline that extends across the proposed site is replaced by wind turbines, which will indirectly impact on the character of the LCA. Magnitude of impacts is considered to be medium to high.

*Significance of Effects on Landscape Character (including operational and under construction wind farms)*

8.7.84 The landscape is considered to be of medium sensitivity and the magnitude of impacts medium to high. Significance of effects on landscape character is predicted to be moderate - substantial (significant).

**Cumulative Effects on Landscape Character Areas**

8.7.85 Following the assessment of individual effects on each LCA within the study area, broad similarities in landscape type and effects were identified. This allowed, where possible, for a grouping of LCAs and significant effects were identified in the following LCAs.

**Assessment of Cumulative Effects (in addition with consented wind farms)***Magnitude of Cumulative Impacts on Landscape Character (LCA 07 and LCA 12)*

8.7.86 The consented wind farm of Foel Trawsnant is located immediately adjacent to the northern boundary of LCA 12, where the addition of the proposed development will extend wind farm development further south across Mynydd Penhydd. Foel Trawsnant will be partially experienced beyond the high point of Mynydd Penhydd to the north, where the addition of the proposed development will directly increase the influence of wind farm development within LCA 12. Any disparity in scale between the two developments will be mitigated by the forested landform to a degree. The turbines located within the section of the proposed development and within LCA 7 will directly extend wind farm development further south onto Mynydd Margam. Due to separation distance, these turbines are likely to have a stronger relationship with the existing turbines to Mynydd Brombil Wind Farm, rather than the consented development of Foel Trawsnant. The consented wind farm of Melin Court is located approximately 6.5 km to the north of LCA 12 had will have little influence on the character of LCA 7 and LCA 12. The magnitude of cumulative impacts is considered to be high.

*Significance of Cumulative Effects on Landscape Character (LCA 07 and LCA 12)*

8.7.87 Within these LCAs the sensitivity of the landscape is considered to be medium, and the magnitude of cumulative impacts are considered to be high for both LCAs. Significance of effects on cumulative landscape character is predicted to be moderate – substantial (significant).

*Magnitude of Cumulative Impacts on Landscape Character (LCA 13)*

8.7.88 The consented wind farm of Foel Trawsnant is located within LCA 13. The addition of the proposed development and most notably the turbines to the northern section will result in an intensification of and indirectly increase the influence of wind farm development within LCA 13. The magnitude of cumulative impacts is considered to be high for LCA 13.

*Significance of Cumulative Effects on Landscape Character (LCA 13)*

8.7.89 Within these LCAs the sensitivity of the landscape is considered to be medium, and the magnitude of cumulative impacts are considered to be high. Significance of effects on cumulative landscape character is predicted to be moderate – substantial (significant) for LCA 13.

*Magnitude of Cumulative Impacts on Landscape Character (LCA 42)*

8.7.90 The wind farm of Foel Trawsnant, will have a pronounced influence on landscape character within LCA 42, which is located within proximity to the proposed development. It will be experienced as a more distinct cluster and may marginally increase the influence of wind farm developments. The wind farm of Upper Ogmored may also have an indirect impact on the LCA, although the turbines to this development will largely be subsumed within the turbines of the operational wind farms of Llynfi Afan REP and also Pen y Cymoedd. The addition of this proposed development may lead to some intensification of wind farm development and extend the arc of wind turbines to

areas to the east within this LCA. However, there is no direct interaction between the proposed development and this consented wind farm. Any changes to existing character will largely be due to the introduction of the proposed development, which will increase the influence of wind farm developments further to the south. The magnitude of cumulative impacts is considered to be medium to high.

*Significance of Cumulative Effects on Landscape Character (LCA 42)*

- 8.7.91 The sensitivity of the landscape is predicted to be medium to high and a magnitude of cumulative effects of medium to high. Significance of cumulative effects on landscape character is predicted to be moderate – substantial (significant).

*Magnitude of Cumulative Impacts on Landscape Character (LCA 57)*

- 8.7.92 From within the majority of areas within Maesteg (LCA 57), the dense urban grain and the steep valley sides that forms its character restricts any visual connections with the surrounding landscape and limits the influence of the consented of Foel Trawsnant. From the more open western facing slopes, the introduction of the proposed development will indirectly result in an intensification of turbines and together with the consented wind farm will extend wind farm development further south along the ridgeline. The magnitude of cumulative impacts is considered to be medium to high.

*Significance of Cumulative Effects on Landscape Character (LCA 57)*

- 8.7.93 The landscape is considered to be of medium to low sensitivity and the magnitude of cumulative impacts medium to high. Significance of effects on landscape character is predicted to be moderate. Effects are considered to be significant as the proposed development together with the consented wind farm of Foel Trawsnant will become a defining characteristic of the LCA.

**Assessment of Cumulative Effects (in addition with scoping stage wind farms)**

*Magnitude of Cumulative Impacts on Landscape Character (LCA 07 and LCA 12)*

- 8.7.94 From within Y Bryn site boundary (LCA 07 and LCA 12), the addition of the proposed development will be experienced with the scoping stage Fforch Dwm development to the north-west, together with the operational developments of Pen y Cymoedd and Ffynnon Oer. The existing character of the wider landscape within these LCA's are indirectly defined by wind farm development, particularly to the north. The proposed development will extend this characteristic south. These areas are currently defined by coniferous forestry to an expansive upland plateau and this will remain as a key defining feature, albeit together with wind turbine development. However, there will be a partial alteration of the character. The magnitude of cumulative impacts is considered to be medium to high.

*Significance of Cumulative Effects on Landscape Character (LCA 07 and LCA 12)*

- 8.7.95 Within these LCAs the sensitivity of the landscape is considered to be medium and the magnitude of cumulative impacts are considered to be high for both LCAs. Significance of effects on cumulative landscape character is predicted to be moderate – substantial (significant).

**Assessment of Cumulative Effects (in combination with all cumulative wind farms)**

*Magnitude of Cumulative Impacts on Landscape Character (LCA 07 and LCA 12)*

- 8.7.96 From within Y Bryn site boundary (LCA 07 and LCA 12), the proposed development will be experienced in combination with operational cumulative development to the north, including Pen y Cymoedd and Ffynnon Oer and to the west at Mynydd Brombil, together with the consented cumulative developments of Foel Trawsnant and Melin Court beyond the high point of Mynydd Penhydd to the north. There will however be limited interaction with the consented wind farms of Upper Ogmored and Nant y Gwyddon Landfill due to intervening topography, vegetation and distance. Also to the north west, the scoping stage development of Fforch Dwm will be experienced.

The existing character of the wider landscape within these LCA's are indirectly defined by wind farm development, particularly to the north. The proposed development will extend this characteristic south. These areas are currently defined by coniferous forestry to an expansive upland plateau and this will remain as a key defining feature, albeit together with wind turbine development. However, there will be a partial alteration of the character. The magnitude of cumulative impacts is considered to be high.

*Significance of Cumulative Effects on Landscape Character (LCA 07 and LCA 12)*

- 8.7.97 Within these LCAs the sensitivity of the landscape is considered to be medium and the magnitude of cumulative impacts are considered to be high for both LCAs. Significance of effects on cumulative landscape character is predicted to be moderate – substantial (significant).

*Magnitude of Cumulative Impacts on Landscape Character (LCA 13 and LCA 18)*

- 8.7.98 From the uplands to the north of the proposed development operational cumulative wind farm development will be a key characteristic of these expansive upland landscapes, together with extensive tract of coniferous productive woodland. The consented wind farm of Foel Trawsnant is located within LCA 13. The addition of the proposed development and most notably the turbines to the northern section will result in an intensification of and indirectly increase the influence of wind farm development within LCA 13. The turbines within the southern section, will have less of an influence on LCA 13 due to separation distance. The consented Melin Court Wind Farm is located within LCA 18, which is located approximately 6.5 km to the north of the proposed development, where the turbines to the existing wind farm of Pen y Cymoedd dominate the character of the landscape. Consequently, the turbines of Melin Court Wind Farm, will be subsumed within the existing turbines of Pen y Cymoedd. Therefore, any cumulative impacts within the proposed development within LCA 18 are likely to be a result of the existing Pen y Cymoedd Wind Farm, rather than the consented Melin Court Wind Farm. However, the consented development of Upper Ogmored will add to the influence of wind farm development, including the operational wind farms of Pen y Cymoedd, Ffynnon Oer and Llynfi Afan REP. Also, to the north west, the scoping stage development of Fforch Dwm will be partially located within LCA 18. The cumulative developments combined with the proposed development may result in a perceived increase in the perception of wind farm development, most notably in LCA 13 and the southern fringes of LCA 18. The magnitude of cumulative impacts is considered to be high overall.

*Significance of Cumulative Effects on Landscape Character (LCA 13 and LCA 18)*

- 8.7.99 Within these LCAs the sensitivity of the landscape is considered to be medium and the magnitude of cumulative impacts are considered to be high overall. Significance of effects on cumulative landscape character is predicted to be moderate – substantial (significant) for both LCAs.

*Magnitude of Cumulative Impacts on Landscape Character (LCA 42)*

- 8.7.100 Within LCA 42, operational development extends across upland skylines broadly to the north and east, including Pen y Cymoedd, Llynfi Afan REP and Taff Ely although vegetation and landform will reduce impacts locally. Impacts from consented wind farms on landscape character, are likely to be due to the wind farms of Taff Ely Repowering, located in the east and also that of Upper Ogmored. The wind farm of Taff Ely Repowering will largely be subsumed within the turbines of existing wind farm development. The turbines to Upper Ogmored Wind Farm will largely be subsumed within the turbines of the operational wind farms of Llynfi Afan REP and also Pen y Cymoedd. The addition of the proposed development will lead to some intensification of wind farm development and extend the arc of wind turbines to areas to the east. There will be little influence from Foel Trawsnant Wind Farm within these LCAs due to intervening topography and vegetation. Foel Trawsnant Wind Farm may be experienced as a more distinct cluster and may marginally increase the influence of wind farm developments within this LCA. The scoping stage development of Fforch Dwm will have some localised impact on southern parts of the LCA 42, restricted to upland locations where it will be experienced subsumed amongst the operational developments. However, any change to existing character will largely be due to the introduction of the proposed

development, which will increase the influence of wind farm development further to the south. The magnitude of cumulative impacts overall is considered to be medium to high.

*Significance of Cumulative Effects on Landscape Character (LCA 42)*

8.7.101 Within this LCA, the sensitivity is medium to high and the magnitude of cumulative impacts is considered to be medium to high. Significance of effects on cumulative landscape character is predicted to be moderate-substantial (significant).

*Magnitude of Cumulative Impacts on Landscape Character (LCA 57)*

8.7.102 From within the majority of areas within Maesteg (LCA 57), the dense urban grain and the steep valley sides that forms its character restricts any visual connections with the surrounding landscape and limits the influence of the consented of Foel Trawsnant. From the more open western facing slopes, the introduction of the proposed development will indirectly result in an intensification of turbines and together with the consented wind farm will extend wind farm development further south along the ridgeline. The magnitude of cumulative impacts is considered to be medium to high.

*Significance of Cumulative Effects on Landscape Character (LCA 57)*

8.7.103 The landscape is considered to be of medium sensitivity and the magnitude of cumulative impacts medium to high. Significance of effects on landscape character is predicted to be moderate - substantial. Effects are considered to be significant as the proposed development together with the consented wind farm of Foel Trawsnant will become a defining characteristic of the LCA.

**Table 8.8 Summary of Significant Effects on Landscape Character**

LCA	Name	Sensitivity	Magnitude	Significance	Magnitude (Cumulative) C -consented A – application Sc - Scoping Co - combined	Significance (Cumulative) C -consented A – application Sc - Scoping Co - combined
03	Margam Country Park	High	Medium to High	Moderate – Substantial significant	-	-
04	Coedhirwaun	Medium to high	Medium	Moderate significant	-	-
06	Mynydd Brombil, Mynydd Emroch and Mynydd Dinas	Medium to Low	Medium to High	Moderate significant	-	-
07	Mynydd Margam	Medium	Very high	Substantial significant	High (C/Co)	Moderate – Substantial (C/Co) significant
08	Goytre Valley	Medium to High	Medium	Moderate significant	-	-
09	Cefn Cethin	Medium to low	Medium to high	Moderate significant		

LCA	Name	Sensitivity	Magnitude	Significance	Magnitude (Cumulative) C -consented A – application Sc - Scoping Co - combined	Significance (Cumulative) C -consented A – application Sc - Scoping Co - combined
10	Mynydd Bycham	Medium	High	Moderate - Substantial significant	-	-
12	Mynydd Penhydd	Medium	High	Moderate – Substantial significant	High (C/Sc/Co)	Moderate – Substantial (C/Sc/Co) significant
13	Foel Trawsnant	Medium	Medium to High	Moderate significant	High (C/Co)	Moderate – Substantial (C/Co) significant
17	Foel Fynyddau	Medium	Medium	Moderate significant	-	-
18	Mynydd Resolven, Craig-y-Llyn and Mynydd Ynyscorrwg	Medium	-	-	High (Co)	Moderate – Substantial (Co) significant
39	Cwmafan	Medium to Low	Medium to High	Moderate significant	-	-
42	Llangynwyd Rolling Uplands and Forestry	Medium to High	Medium	Moderate significant	Medium to High (C/Co)	Moderate – Substantial (C/Co) significant
43	Llynfi Valley Floor and Lower Slopes	Medium to High	Medium	Moderate significant	-	-
44	Llynfi and Garw Uplands and Forestry	Medium	Medium	Moderate significant	-	-
45	Betws Settled Farmland	Medium	Medium	Moderate significant	-	-
57	Maesteg	Medium	Medium – to High	Moderate - substantial significant	Medium to High (C/Co)	Moderate – substantial (C/Co) significant

## Potential Effects on Visual Amenity

8.7.104 The significance of visual effects as a result of the proposed development during the operational phase, from each of the selected 37 no. viewpoints, has been assessed against the significance criteria defined in Appendix 8.1: SLVIA Methodology. Effects during the operational phase of the project are considered to be long term, although temporary in duration. Table 8.9 lists the 37 no. viewpoints that have been agreed with the statutory consultees to be assessed as part of this SLVIA and their location is shown on Figure 8.1.

Table 8.9: Viewpoint locations

VP	Location	X Co-ordinate (Easting)	Y Co-ordinate (Northing)	Distance from Nearest Turbine (Km)
1	Evans Terrace, Caerau	285601	193880	1.88
2	Maesteg Golf Course	283616	191592	1.22
3	Bryn (Play area off Neath Road)	281348	192438	1.46
4	Brynna Road, Cwmafan	277547	192500	4.29
5	Rhiwlas, Neath	274278	198813	9.74
6	Mumbles Hill, Swansea	262784	187445	18.18
7	Gower Way National Trail, Cefn Bryn	249418	189884	31.48
8	Margam Park (Deer Park)	281391	186390	2.33
9	Ogof-Ffynnon-Ddu (BBNP)	287456	216033	22.77
10	St. Illtyd's Walk National Trail, near Cynonville	281837	195251	1.90
11	Wales Coast Path, Ogmere-by-Sea	286146	175100	14.23
12	Twmbarlwm	324190	192609	40.40
13	Junction of Heol Gelli Lenor and Brynllwarch, Maesteg	284793	190339	2.15
14	Swansea Promenade, Black Pill	261995	190605	18.95
15	Clwyd Road, Pen-Lan, Swansea	264716	195792	17.27
16	The Princess Margaret Way, Aberavon	273840	190276	7.12
17	Margam Park	280636	186001	2.89
18	Pen-y-Fan (BBNP)	301211	221585	33.09
19	Wales Coast Path, Rest Bay / Royal Porthcawl Golf Club, Porthcawl	279990	178709	10.13
20	Pen Parcau, Bettws	289785	187496	6.84
21	Sarn Helen, Aberdulais	279972	202684	9.56
22	Baxter Terrace, Glyncorwg	287629	199343	7.04

VP	Location	X Co-ordinate (Easting)	Y Co-ordinate (Northing)	Distance from Nearest Turbine (Km)
23	Margam Park (Access Road)	280104	185810	3.29
24	Wales Coast Path, Kenfig Burrows	279807	181080	7.85
25	Bryn East, picnic area opposite Royal Oak Public House	281943	192050	1.16
26	Ogwr Ridgeway Walk near Y Bwlwarcau Hillfort	283680	187700	1.42
27	Cemetery eastern edge of Maesteg	286321	191520	3.02
28	Llangynwyd	285705	188788	2.61
29	Oxwich Point	251169	184981	30.01
30	Nash Point, Glamorgan Heritage Coast	291191	169275	21.31
31	Esgair Hir, Bannau Brycheiniog Way National Trail (BBNP)	277769	220292	27.25
32	Junction of Stallcourt Road/A48, Margam	278265	187798	2.97
33	Open Water off Mumbles	262996	189390	17.89
34	South of Porthcawl Marina	281987	173999	14.70
35	Bristol Channel	258573	174494	26.68
36	Mouth of River Neath	270487	190509	10.48
37	Outer Swansea Bay/Bristol Channel	254300	174769	30.21

8.7.105 The viewpoints where significant effects are predicted, either individual and/or cumulative, to occur are set out below and are extracted from Appendix 8.9: Potential Effects on Visual Amenity. *Viewpoints 13 Junction of Heol Gelli Lenor and Brynllwarch, Maesteg and Viewpoint 32 Junction of Stallcourt Road/A48 Margam* do not contain a cumulative assessment, either in the Chapter or the appendix as there are no other cumulative wind farms visible.

### Viewpoint 1: Evans Terrace, Caerau

*Approximate Distance to Nearest Turbine:* 1.88 km

*Susceptibility of Visual Receptors to Change*

8.7.106 The predominant receptor types are predicted to be people engaged in outdoor sports, whose recreation does not involve or depend on the appreciation of views. The viewpoint is also located on NCR885. The susceptibility to change of visual receptors is assessed as medium for recreational users and medium to high for cyclists.

*Value Attached to the View*

8.7.107 This viewpoint location is not within a designated landscape, recorded on OS maps or included within tourist information literature and there is no provision of facilities that promote the enjoyment of the view. The view is

considered a typical view from locations within the area, including residents within the adjacent houses. The value of the view from this viewpoint towards the proposed development is assessed as medium, on balance, overall.

#### *Sensitivity of Visual Receptors*

- 8.7.108 Receptors are not located within a designated landscape, or a location recognised for its view. Receptors are predicted to be people cycling on a promoted cycleway and people undertaking an activity unrelated to the landscape and therefore unlikely to be responsive to the size of wind farm proposed. Overall sensitivity of visual receptors is assessed as medium to high.

#### *Existing View*

- 8.7.109 The foreground view is formed by a sports field enclosed by protruding high fencing, beyond which the built form within the village of Caerau predominately consists of terraced houses and is clearly visible. Rising steeply beyond the terraces are the slopes of Foel y Dyffryn and Mynydd Penhydd which restrict longer views west. The slopes of Foel y Dyffryn are typically vegetated with a mix of deciduous trees and scrub vegetation, while dense coniferous forestry is dominant across Mynydd Penhydd. Longer views are available to the south-west, where the telecommunications mast that sits on Mount Pleasant is visible, together with transmission pylons and cabling passing in front of the coniferous productive forestry that extend across the slopes of Mynydd Bach beyond. To the north, residential development at Brynheulog and which lie on the lower slopes of Foel Fawr can be seen. The topography of Foel Fawr constrains views to the north. Two blade tips of Pen y Cymoedd Wind Farm can be seen extending above the roofline of housing adjacent to the viewpoint. All other turbines in this development are screened by topography and/or vegetation. The wireline also indicates visibility of Llynfi Afan REP to the north east although this is also screened by intervening foreground vegetation.

#### *Predicted View (including operational and under construction wind farms)*

- 8.7.110 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.45a – 8.45f. The wirelines indicate 10 of the 18 proposed turbines will potentially be visible from this location. Of the 10 visible, 6 will be visible at partial tower height, 1 at hub height and 3 at blade tip level. However, as illustrated by the photomontage (Figure 8.45f) and due to existing forestry, T6 will be screened from view. In succession, away to the north west, views of two blade tips of Pen y Cymoedd Wind Farm will be visible above the roofline of adjacent housing.

#### *Magnitude of Visual Impacts (including operational and under construction wind farms)*

- 8.7.111 The turbines, including movement of the blades, would be an apparent, large-scale feature that would be viewed at a relatively close distance. The turbines in the southern section will potentially be seen as prominent vertical features within the landscape and may be seen to contrast with existing elements of the view. However, although they will be prominent on the wooded skyline to the south formed by Mynydd Margam, they will form a coherent grouping enclosed and balanced by the rising wooded landform of Foel-y-Dyffryn to the north. The turbine grouping will provide a strong visual focus within the view south along the valley towards Mynydd Margam. Foel-y-Dyffryn also provides some visual separation between visible turbines in the southern section and the turbines of the northern section. However, the turbines within the northern section are largely screened from the view by the topography and the forestry and deciduous woodland on the skyline and slopes. Turbines to the north will be partially visible at partial tower height and blade tip only and are not predicted to be dominant features. The horizontal extent of turbines along the skyline will increase notably within views west and south. However, the proposed development will be notably separated from the operational visible turbines of Pen-y-Cymoedd Wind Farm by the landform of Foel-y-Dyffryn. The magnitude of impact is predicted to be high.

#### *Significance of Visual Effects (including operational and under construction wind farms)*

- 8.7.112 The sensitivity of receptors is considered to be medium to high, and the magnitude of impacts is predicted to be high, therefore the significance of effects on visual amenity are predicted to be substantial (significant).

#### *Predicted Cumulative View (consented wind farms)*

- 8.7.113 Figures 8.45a to 8.45c illustrate that in addition to the proposed development and other operational wind farms, two turbines at partial tower height, one at hub height and two at blade tip height of the consented turbines of Foel Trawsnant Wind Farm may be visible from this location.

#### *Magnitude of Cumulative Impacts (consented wind farms)*

- 8.7.114 The visible consented turbines of Foel Trawsnant will form a distinct cluster located above the landform of Foel-y-Dyffryn to the west. This will partially infill the gap between the operational turbines at Pen y Cymoedd and the proposed development, although the visible turbines of Pen y Cymoedd will remain subservient to the consented and proposed development. However, the northern section of the proposed development will be of an equal scale and similar spacing so that the cumulative integration of the two developments appears well coordinated. The southern section remains as a distinct cluster further to the south beyond the rising landform of Foel-y-Dyffryn. The magnitude of cumulative impacts is therefore predicted to be high.

#### *Significance of Cumulative Visual Effects (consented wind farms)*

- 8.7.115 The sensitivity of receptors is considered to be medium to high, and the magnitude of cumulative impacts is predicted to be high. Therefore, the significance of cumulative effects on visual amenity are predicted to be substantial (significant).

#### *Predicted Cumulative View (application wind farms)*

- 8.7.116 Figures 8.45a to 8.45c illustrate that in addition to the proposed development, there will be no application stage wind farms visible from this viewpoint. There will be no cumulative effects as a result of application wind farm development.

#### *Predicted Cumulative View (scoping stage wind farms)*

- 8.7.117 Figures 8.45a to 8.45c illustrate that in addition to the proposed development and other operational wind farms, two turbines one at partial tower height and one at blade tip height of the scoping stage turbines of Fforch Dwm Wind Farm may be visible from this location. However, both turbines will be screened from view by adjacent built form and there will be no cumulative effects as a result of scoping stage wind farms from this location.

#### *Predicted Cumulative View (in combination with all cumulative wind farms)*

- 8.7.118 Figures 8.45a to 8.45d illustrate that in addition to the proposed development, all or some of the turbines to the existing wind farms of Pen y Cymoedd, plus the consented turbines of Foel Trawsnant Wind Farm may be visible from this location. Existing vegetation will screen all views to the turbines of Llynfi Afan REP Wind Farm and adjacent housing/vegetation will restrict views of the turbines to Pen y Cymoedd Wind Farm to the upper blade tip to two turbines.

#### *Magnitude of Cumulative Impacts (in combination with all cumulative wind farms)*

- 8.7.119 The proposed development turbines of the northern section and the turbines of the consented Foel Trawsnant Wind Farm will be viewed in combination and will appear well coordinated as a single contiguous development. In succession views of the proposed development and Pen-y-Cymoedd Wind Farm will also be possible, although the two blade tips of Pen-y-Cymoedd visible will be subservient to the main clusters of turbines visible of Foel Trawsnant and Y Bryn, further to the south. Following the construction of the proposed development, the horizontal extent of turbines visible within the view will increase to the extent that wind turbines will extend across a significant proportion of the skyline, albeit in a series of clusters separated by the landform of Foel-y-Dyffryn. The magnitude of cumulative impacts is therefore predicted to be high.

*Significance of Cumulative Visual Effects (in combination with all cumulative wind farms)*

8.7.120 The sensitivity of receptors is considered to be medium to high, and the magnitude of cumulative impacts is predicted to be high. Therefore, the significance of cumulative effects on visual amenity are predicted to be substantial (significant).

*Significance of Effects on Visual Amenity following NRW Forestry Management*

8.7.121 The closest visible turbines, T4 and T5, within the northern section, both have two areas of forestry currently planned for felling in direct line-of-sight from this viewpoint. Both forestry coupes are approximately 1.25 km from the viewpoint to the south-west, however the coupe shaded purple on *Lines of Sight over NRW Long Term Felling Plan - VP1*, due to be clear felled between 2022 to 2026 with much already having been felled, is not visible in direct line of sight (see Figure 8.45f) due to intervening topography. Immediately behind this, the coupe shaded yellow (visible on Figure 8.45f) is due to be clear felled between 2032 to 2036. Once these coupes are clear felled the hub of T5 will become visible from this viewpoint. Both turbines T4 and T5 are within forestry coupes shaded light blue being classified as young crops with unassigned management comprising sitka spruce, planting years 1997 and 2005 respectively. By 2036 when all intervening coupes are to be felled the young crops will have had an additional 14 years of growth, reaching to between 13 m to 17 m, however due to proximity to the turbines and the intervening topography, they will not provide screening from this viewpoint.

8.7.122 Within the southern section, T6, T8 and T14's views are intervened by 2 forestry coupes within 2.5 km of the viewpoint. The closest coupe is shaded purple comprising sitka spruce, planting year 1959, and due to be felled between 2022 to 2026 with the next being shaded light blue being classified as young crops with unassigned management comprising Norway spruce, planting year 2013. By 2026 with 4 years additional growth this light blue shaded coupe will not provide the screening effects of the then felled purple shaded coupe, therefore the blades of T8 and T14 will become more visible. However, as this young crop reaches maturity it is likely that T6 will become completely screened and possible that the blades of T8 and T14's will again become largely screened, as trees reach estimated heights up to 18 m by 2051. The coupe intervening the view with T9 and T15 within 2.5 km of the viewpoint comprising beech and mixed broadleaves, planting years 2010 and 2018, is shaded with a purple and orange hatch indicating a nature reserve, however even as this matures views of T9 and T15 are likely to be unaffected.

8.7.123 Views towards T10, T11 and T16 will not be affected by future planned forestry operations due to the distance from the viewpoint of intervening forestry coupes.

8.7.124 Evaluations for magnitude of impacts, both individually and cumulatively, will remain as assessed as there will be no perceptible change to views following implementation of the forestry management.

**Viewpoint 2: Maesteg Golf Course**

*Approximate Distance to Nearest Turbine: 1.22 km*

*Susceptibility of Visual Receptors to Change*

8.7.125 The predicted predominant receptor types are people playing golf and walkers using the public footpath, who unlike golfers, may view the landscape as a primary reason for their visit. The susceptibility to change of visual receptors is assessed as medium for golfers and medium to high for walkers.

*Value Attached to the View*

8.7.126 Located on the eastern fringe of the Margam SLA. Views across the surrounding landscape are noted on the club's website, however there are no provision of facilities that promote the enjoyment of the views as separate to the general activity of golfing. Existing powerlines are a detracting element within the view. Overall, the value of the view from this viewpoint towards the proposed development is assessed as medium.

*Sensitivity of Visual Receptors*

8.7.127 Receptors are within a designated landscape that includes walkers using a public right of way. However, the majority of receptors are predicted to be golfers that are undertaking a sporting activity connected to the landscape, although views of the landscape are not their primary reason for their visit. Therefore, they may be able to accommodate some new visual elements of the type and size proposed. Sensitivity of visual receptors overall is assessed as medium to high.

*Existing View*

8.7.128 From this public footpath that passes through the golf course, views are channelled west by the adjacent slopes of Mynydd Bach to the south and Rhiw Tir Cymry to the north. Both slopes are vegetated with dense coniferous productive forestry. The foreground view is dominated by the fairways to the golf course, although within the middle distance, the built form within the village of Bryn can be seen. Extending beyond Bryn, the slopes of Mynydd Penhydd form a sense of enclosure. The lower slopes are typically a mix of semi-improved agricultural land with small woodland belts and blocks, plus scrub vegetation. The upper slopes are a mix of forestry plantation, which includes large areas that have been clear felled and upland grassland. Within the far distance, the urban development of Neath and the northern fringes of Swansea can be seen. Extending across the view, and often skylining, are a number of steel lattice electricity pylons and overhead cables. Two turbines at partial tower height and one at blade tip height of Llynfi Afan REP Wind Farm are visible on the skyline framed by existing vegetation to the north-east. One turbine of Swansea Welsh Water Treatment Works (WWTW) is imperceptible amongst urban development in distant views to the east and is excluded from further consideration/assessment. Further wind farm developments at Pant-y-Wal and Pant-y-Wal Extension are obscured by intervening vegetation.

*Predicted View (including operational and under construction wind farms)*

8.7.129 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.46a – 8.46d. The wirelines indicate 10 of the 18 proposed turbines will potentially be visible from this location. Of the 10 visible, 3 are located within the southern section of the proposed site and all are visible at blade tip level. Of the 5 visible within the northern section of the proposed site, all 5 will potentially be visible at partial tower height. However, as illustrated by the photomontages (Figure 8.46f and 8.46h) T6 and T7 will be screened from view completely and only the hub of T2 will be visible as opposed to partial tower height, as indicated by the wirelines. This will be due to screening by existing forestry. The turbines of Llynfi Afan REP will be separated from the proposed development by vegetation and will be seen as subservient in scale due to the intervening distance on lower ground to the north-east. Away to the east the single turbine of Swansea WWTW is inconsequential amongst the urban development in the distance.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

8.7.130 The turbines of the northern section, including movement of the blades would be an immediately apparent feature that would be viewed at a close distance and at a significantly larger scale than existing visible wind farm development. The turbines of the southern section will be largely obscured by the intervening forestry and topography. T6 and T7 will be visible to south at blade tip only. The northern sections of the proposed development will therefore form a distinct cluster and there will be a considerable separation from the existing visible turbines at Llynfi Afan REP. The turbines within the northern section will potentially be seen as large-scale vertical features within the landscape, occupying a significant proportion of the view north. Views from the viewpoint are open and contained by the higher land to the north and south. Views of the turbines to the north will be available for a long duration, particularly by users of the footpath when travelling north. The turbines in the northern section are, however coherently arranged with turbines T3 and T5 visually balanced on local high points and the remaining three turbines within the group receding slightly beyond the wooded skyline. The turbines are spaced equally along the skyline with only minor interaction between turbines T2 and T5 evident. The towers are, to varying degrees, partially obscured by the landform and productive forestry and the section appears to be well proportioned in scale

to the landform of Mynydd Penhydd. Although there is an obvious separation between the northern and southern sections from this viewpoint, there is also very limited visual competition between the two groupings, particularly since the southern section is largely obscured. The northern section forms a prominent, but not overwhelming, visual foci and the southern section a component of the wider view that would not have a marked impact on the overall quality of the view. The magnitude of impacts is predicted, on balance, to be high to very high.

*Significance of Visual Effects (including operational and under construction wind farms)*

- 8.7.131 The sensitivity of receptors is considered to be medium-high, and the magnitude of impacts is predicted to be high to very high, therefore the significance of effects on visual amenity are predicted to be substantial (significant).

*Predicted Cumulative View (consented wind farms)*

- 8.7.132 Figures 8.46a to 8.46d illustrate that in addition to the proposed development and other operational wind farms, two turbines at partial tower height, one at hub height and two at blade tip height of the consented turbines of Foel Trawsnant Wind Farm may be visible from this location. Pant-y-Wal Extension Phase 2 will be obscured from view by existing vegetation and there will be no effects relating to this wind farm. Visibility of Upper Ogmored Wind Farm will be confined to one blade tip, partially filtered by vegetation with the remainder of the development obscured by landform.

*Magnitude of Cumulative Impacts (consented wind farms)*

- 8.7.133 The visible consented turbines of Foel Trawsnant will form a dispersed arrangement, filtered and largely obscured by forestry and landform. Where visible, turbines will be seen beyond the proposed development on the skyline in combination as a single cluster occupying the higher land rising to Mynydd Penhydd. Although the Foel Trawsnant turbines will be of a smaller scale, from this viewpoint, the perception will be of a single development extending beyond the skyline. However, the influence of wind farm development at this viewpoint will predominantly result from the addition of the proposed development rather than the consented. The magnitude of cumulative impacts is therefore predicted to be high to very high.

*Significance of Cumulative Visual Effects (consented wind farms)*

- 8.7.134 The sensitivity of receptors is considered to be medium, and the magnitude of cumulative impacts is predicted to be high to very high. Therefore, the significance of cumulative effects on visual amenity are predicted to be substantial (significant).

*Predicted Cumulative View (application wind farms)*

- 8.7.135 Figures 8.46a to 8.46d illustrate that in addition to the proposed development and the operational schemes, there will be no application wind farms visible from this viewpoint. There will be no cumulative effects as a result of application wind farm development.

*Predicted Cumulative View (scoping stage wind farms)*

- 8.7.136 Figures 8.46a to 8.46d illustrate that in addition to the proposed development and other operational wind farms, there will be 1 turbine visible of Fforch Dwm Wind Farm, at blade tip height. However, due to screening by topography and intervening vegetation, the turbine will not be visible and there will be no cumulative effects as a result of scoping stage wind farms from this location.

*Predicted Cumulative View (in combination with all cumulative wind farms)*

- 8.7.137 Figures 8.46a to 8.46d illustrate that in addition to the proposed development and operational wind farm development of Llynfi Afan REP, the consented turbines of Foel Trawsnant Wind Farm. The application development of Upper Ogmored will be imperceptible and there will be no cumulative effects in relation to this.

*Magnitude of Cumulative Impacts (in combination with all cumulative wind farms)*

- 8.7.138 Following construction of the proposed development, the proportion of the view in which wind turbines will be visible will increase to the extent that when viewed primarily with the Foel Trawsnant turbines, wind turbines will occupy a significant proportion of it and be visually prominent elements. The magnitude of cumulative impacts is predicted to be very high.

*Significance of Cumulative Visual Effects (in combination with all cumulative wind farms)*

- 8.7.139 The sensitivity of receptors is considered to be medium, and the magnitude of cumulative impacts is predicted to be very high, therefore the significance of cumulative effects on visual amenity are predicted to be substantial (significant).

*Significance of Effects on Visual Amenity following NRW Forestry Management*

- 8.7.140 There are two areas of forestry currently planned for felling in direct line-of-sight to the nearest turbines, T6 and T7, within the southern section. Both forestry coupes are approximately 400 m from the viewpoint to the south-west. The coupe shaded orange colour on *Lines of Sight over NRW Long Term Felling Plan – VP2* is due to be clear felled between 2027 to 2031 and the coupe shaded dark green between 2042 to 2046. The more significant latter coupe, comprising sitka spruce planted in 1983, resides at between 220 m to 280 m elevation, with estimated tree heights of 31 m in 2041. Immediately beyond these forestry coupes, further to the south-west on the Mynydd Bach plateau, is an extensive block of unassigned forestry, comprising sitka spruce, which was planted between 1980 to 1999 and resides between 280 m to 310 m elevation. Following felling of the forestry blocks to the front of the young forestry, which is scheduled to be completed by 2046, the unassigned management, shaded light blue, will have had an additional 24 years of growth and have reached mature heights of between 20 m to 30 m. This area of forestry will effectively duplicate the degree of screening currently provided by the coupes due to be harvested from 2027 onwards. The two coupes harvested will, in addition it is assumed, be replanted and will offer further screening over time. Following the harvesting of forestry in 2042, the blade tips of T6 and T7 should remain substantially screened from view by the unassigned forestry.
- 8.7.141 Within the northern section, the mature areas comprising Norway spruce, planting year 1957, around Cwm Tonhir (visible in Figure 8.46h) titled 'minimum intervention' and 'Low impact silvicultural system' will remain in place continuing to provide screening to the towers of turbines T1 and also T3. The coupe shaded orange in the line of sight to T2, T4 and T5 is due to be clear felled between 2027 to 2031, at which point there will be some marginally greater visibility of towers for these turbines. For all other turbines there will be no perceptible change following forestry management during the lifetime of the proposed development from currently planned management.
- 8.7.142 Evaluations for magnitude of impacts, both individually and cumulatively, will remain as assessed as there will be no perceptible change to views following implementation of the forestry management.

**Viewpoint 3: Bryn (Play area off Neath Road)**

*Approximate Distance to Nearest Turbine: 1.46 km*

*Susceptibility of Visual Receptors to Change*

8.7.143 The predominant receptor types are predicted to be people engaged in outdoor sports and children using the play equipment, whose activities do not involve or depend on the appreciation of views. However, the viewpoint is also intended to be representative of typical views that residents may receive within more elevated sections the settlement. The susceptibility to change of visual receptors is assessed as medium to high.

*Value Attached to the View*

8.7.144 From this viewpoint location there are views towards the proposed development, however it is not within a designated landscape, recorded on OS maps or included within tourist information literature. There are benches adjacent to the play area, but these are unlikely to be related or connected to the enjoyment of the view. Views for residents will however be of increased value. The value of the view from this viewpoint towards the proposed development is assessed as medium.

*Sensitivity of Visual Receptors*

8.7.145 Receptors are not located within a designated landscape and the majority are predicted to be people undertaking an activity unrelated to the landscape and therefore unlikely to be responsive to the size of wind farm proposed. Residents will, however, be more sensitive to change. Sensitivity of visual receptors overall is assessed as medium to high.

*Existing View*

8.7.146 From this elevated location on the northern edge of the village, the foreground view to the south is defined by a relatively flat, grassed playing field, enclosed by a metal fence. Beyond the field, the densely wooded slopes of Mynydd Bach and Moel Gallt y Cwm, which are covered with coniferous productive forestry, form a backdrop to the view and limit views further south. Views to the east and to the north are restricted to relatively shorter distances by the slopes of Pen Disgwylfa and Mynydd Penhydd. Extending across the ridgelines are coniferous productive forestry, some of which have been replanted following felling. The lower slopes are typically a mix of acid grassland and semi-improved grassland used for pasture. Nestled within the lower slopes there are glimpsed views of light industrial units and residential dwellings that are located to the eastern edge of Bryn. Steel lattice electricity pylons and overhead cables extend across the view, often sky lining, and there is some filtered visibility of Mynydd Brombil Wind Farm beyond foreground vegetation.

*Predicted View*

8.7.147 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.47a – 8.47h. The wirelines and photomontage indicate that all 18 proposed turbines will potentially be visible from this location. 13 are located within the southern section of the proposed site, 11 of which would potentially be visible at partial tower height, to varying degrees depending on intervening landform and vegetation and two turbines would be visible at hub height. Of the five visible within the northern section of the proposed development, four will potentially be visible at partial tower height and one at hub height. The photomontage (refer to Figure 8.47f) however, indicates that within the southern section and due to the screening by existing forestry, T11 will be obscured entirely, T9, T10, T16 and T17 will be visible at blade tip only and T8 and T12 will be visible at hub level only. Within the northern section and as indicated in Figure 8.47h, views of turbine T2 will be restricted by forestry to blade tip level only and turbine T1 to hub height.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

8.7.148 The turbines, including movement of the blades would be an apparent feature that would be viewed at a relatively close distance and occupy a significant proportion of the view. The southern section of turbines will potentially be

perceived as prominent vertical features contained by the wooded skyline between the high points of Mynydd Bach and Moel Gallt-y-Cwm. The turbines in this composition are equally spaced and considered to be proportional to the scale of the north facing slope of the Goytre Valley. Turbines T6 and T7 nearest to the viewpoint form a visual focus to the section, with the remaining turbines receding beyond the skyline to varying degrees. There are some instances of stacking between turbines from this viewpoint, but the overall composition will be perceived as a coherent grouping balanced centrally on the plateau. The northern section of turbines will also be visible more obliquely from this viewpoint to the north-east, partially filtered by intervening vegetation. Again, the composition of the group is coherent and equally spaced with few instances of stacking evident. Receptors will be using the facilities for a limited period and therefore views may be moderate in duration. The magnitude of impacts is predicted to be high to very high.

*Significance of Visual Effects (including operational and under construction wind farms)*

8.7.149 The sensitivity of receptors is considered to be medium to high, and the magnitude of impacts is predicted to be high to very high, therefore the significance of effects on visual amenity is predicted to be substantial (significant).

*Significance of Effects on Visual Amenity following NRW Forestry Management*

8.7.150 Around the turbines of the southern section, *Lines of Sight over NRW Long Term Felling Plan – VP3* indicates that most of the coupes comprising the horizon line are not programmed for felling. T6, T7, T8, T9, T10, T11, T15 and T16 are all contained behind a circa. 260 m to 310 m horizon line of young crops comprising sitka spruce, planting years 1987 to 2000, and so only an increasing degree of screening is currently anticipated. Similarly, T12, T13, T14, T17 and T18 are screened to a large degree by LISS and minimum intervention areas around Moel Gallt-y-cwm, again meaning only an increasing degree of screening over time is currently anticipated.

8.7.151 Within the northern section, T1, T2, T3 and T4 have a coupe shaded orange to be felled between 2027 to 2031 within their sightlines. As the other coupes within the sightlines are shaded light blue indicating young crops and having only up to nine years additional growth before the orange coupe is clear felled, the visibility of these turbines will increase. At this time the hub of T2 will become visible along with larger portions of the towers of T1, T3 and T4, however as the young crops mature these features will again become screened.

8.7.152 There are no coupes programmed to be felled within the sightline of T5, and as the young crops mature, they will offer further screening, although minimal due to the distance from the viewpoint.

8.7.153 Evaluations for magnitude of impacts, both individually and cumulatively, will remain as assessed as there will be no perceptible change to views following implementation of the forestry management.

**Viewpoint 4: Brynna Road, Cwmafan**

*Approximate Distance to Nearest Turbine: 4.29 km*

*Susceptibility of Visual Receptors to Change*

8.7.154 The predominant receptor types are predicted to be people engaged in outdoor recreation particularly children using the play equipment, whose activities do not involve or depend on the appreciation of views. However, the viewpoint is also intended to be representative of typical views that residents may receive within more elevated sections the settlement. The susceptibility to change of visual receptors is assessed as medium to high.

*Value Attached to the View*

8.7.155 From this viewpoint location, there are primary views towards the proposed development, however it is not within a designated landscape, recorded on OS maps or included within tourist information literature. There are benches within the nearby the play area, but these are unlikely to be related or connected to the enjoyment of the view. Views for residents will however be of increased value. The value of the view from this viewpoint towards the proposed development is assessed as medium.



*Sensitivity of Visual Receptors*

8.7.156 Receptors are not located within a designated landscape or at a location that is valued for its view, however the majority of receptors will be residents who may be particularly responsive to wind farm development of the type and size proposed. Sensitivity of visual receptors is assessed as medium to high.

*Existing View (including operational and under construction wind farms)*

8.7.157 A large playing field, with a playground to its eastern boundary forms the foreground view. Overlooking the playing field are two storey, post war semi-detached houses, whilst views to the north, south and east are enclosed by a range of hills. To the north lies the high point of Foel Fynyddau, whose slopes are well vegetated with dense coniferous forestry and on the summit, three communication towers are visible. Further to the east lies Mynydd Bychan, the northern flanks of which are covered with coniferous productive forestry, whilst the southern parts are typically rough grassland and improved grassland enclosed by stone walls. To the south-east lie the partially wooded slopes of Mynydd Emroch, whose southern extent falls steeply towards the Taibach area of Port Talbot and include views of the steel works including the tall venting towers. Extending across the ridgeline of Mynydd Emroch and within the valley to the south are a number of steel lattice electricity pylons and overhead cables. To the south east, two blade tips to the operational wind farm of Llynfi Afan REP are theoretically visible, while to the south west a blade tip to a turbine, to the wind farm of Pen Y Cymoedd is also theoretically visible. In reality the turbines, to both developments will be screened from view by existing coniferous productive forestry.

*Predicted View*

8.7.158 The proposed turbines will form an apparent, large-scale feature that will occupy a significant proportion of the view towards the ridgeline of Mynydd Bychan and be viewed at a relatively close distance. The turbines within the northern section are coherently spaced and balanced and sit comfortably behind the high point of Moel y Fen. Turbines within the southern section are more visually prominent as a clustered arrangement on the skyline, however productive forestry will partially obscure visibility of the development. The proposed development is also considered to be subservient in scale to the proportion to the landform, reinforced by the sharply defined valley side sloping into the Afan Valley. Existing pylons on the skyline are located beyond the proposed development to the south and there is no visual interaction between them. As a result, the fundamental character of the overall view, including the distinctive and prominent slopes of Mynydd Emroch and views towards Port Talbot will remain. The magnitude of impacts is predicted to be medium to high.

*Significance of Visual Effects*

8.7.159 The sensitivity of receptors is considered to be medium to high, and the magnitude of impacts is predicted to be medium to high and therefore the significance of effects on visual amenity are predicted to be moderate – substantial (significant).

*Predicted Cumulative View (consented wind farms)*

8.7.160 Figures 8.48a to 8.48d illustrates that in addition to the proposed development and the operational schemes, the consented scheme of Foel Trawsant is theoretically visible.

*Magnitude of Cumulative Visual Impacts (consented wind farms)*

8.7.161 The consented wind farm will be a minor element within the view, partially screened by topography and existing forestry that extends across the ridgeline of Moel y Fen and Mynydd Penhydd beyond, which will restrict views to blade tips only. The introduction of the proposed development will further extend wind farm developments across a significant proportion of the view to the south east and the turbines will be seen as a larger scale element within the view than the turbines of Foel Trawsant. The magnitude of cumulative impacts is predicted to be medium.

*Significance of Cumulative Visual Effects (consented wind farms)*

8.7.162 The sensitivity of receptors is considered to be medium to high, and the magnitude of impacts is predicted to be medium and therefore the significance of cumulative effects on visual amenity are predicted to be moderate – substantial (significant).

*Predicted Cumulative View (application wind farms)*

8.7.163 Figures 8.48a to 8.48d illustrate that in addition to the proposed development and the operational schemes, there will be no application wind farms visible from this viewpoint. There will be no cumulative effects as a result of application wind farm development.

*Predicted Cumulative View (scoping stage wind farms)*

8.7.164 Figures 8.48a to 8.48d illustrate that in addition to the proposed development and the operational schemes, there will be no scoping stage wind farms visible from this viewpoint. There will be no cumulative effects as a result of scoping stage wind farm development.

*Predicted Cumulative View (in combination with all cumulative wind farms)*

8.7.165 Figures 8.48a to 8.48d illustrate that in addition to the proposed development, all or some of the turbines to the existing wind farms of Llynfi Afan REP and Pen y Cymoedd, plus the consented turbines of Foel Trawsant Wind Farm may be visible from this location.

*Magnitude of Cumulative Visual Impacts (in combination with all cumulative wind farms)*

8.7.166 Due to the screening by topography all cumulative developments are predicted to be minor elements within view, particularly the turbines to the wind farms of Llynfi Afan REP and Pen y Cymoedd, both of which are likely to be imperceptible elements. The introduction of the proposed development will, however, further extend wind farm developments across a significant proportion of the view to the south east in combination with the consented development of Foel Trawsant and the turbines will be seen as a larger scale element within the view than the turbines of Foel Trawsant. The magnitude of cumulative impacts is predicted to be medium.

*Significance of Cumulative Visual Effects (in combination with all cumulative wind farms)*

8.7.167 The sensitivity of receptors is considered to be medium to high, and the magnitude of impacts is predicted to be medium and therefore the significance of cumulative effects on visual amenity are predicted to be moderate – substantial (significant).

*Significance of Effects on Visual Amenity following NRW Forestry Management*

8.7.168 The closest turbines to the viewpoints are within the southern section. Of these, T12, T13, T14, T15 and T16 are not screened by productive forestry and will therefore not be affected by forestry operations. T9, T10, T11, T17 and T18 are partially screened by intervening productive forestry not within the site boundary or forestry study area and therefore felling strategies are not available and future effects cannot be determined. T6, T7 and T8 are each viewed with the base of their towers screened by forestry within the site/study area. *Lines of Sight over NRW Long Term Felling Plan – VP4* indicates within the sightlines to these turbines there are only small areas of forestry highlighted to be felled in the next 25 years, including areas shaded purple to be felled between 2022 to 2026, yellow to be felled between 2032 to 2036 and green to be felled 2042 to 2046. Most of the forestry within these sightlines is shaded brown indicating minimum intervention and red indicating low impact silvicultural system along with light blue, in which T6 and T7 are located, indicating young crops. Therefore, forestry operations will not increase the visibility of the turbines from this VP, although as the trees mature, particularly the young crops, visibility of the turbines will become slightly reduced.

8.7.169 Within the northern section, there is currently no screening of the turbines by forestry due to the topography, there will therefore be no effects on the visibility of these turbines from any future forestry operations.

- 8.7.170 Evaluations for magnitude of impacts, both individually and cumulatively, will remain as assessed as there will be no perceptible change to views following implementation of the forestry management.

### Viewpoint 8: Margam Park (Deer Park)

*Approximate Distance to Nearest Turbine: 2.33 km*

#### *Susceptibility of Visual Receptors to Change*

- 8.7.171 The predominant receptor types are predicted to be walkers on a national trail, where the landscape may be the primary reason for their visit. The susceptibility to change of visual receptors is assessed as high.

#### *Value Attached to the View*

- 8.7.172 Located within the Margam SLA and a Registered Landscape of Special Historic Importance, which is also a Grade I Registered Park and Garden, there are panoramic views, most notably to the south across the surrounding landscape. The views south, are noted within the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales<sup>2</sup>. However, it does contain notable man-made elements, including the steel works at Port Talbot. Facilities are limited to a timber bench, which is orientated to take in the views south, rather than north towards the proposed development. It is located on St. Illtyd's Walk/Ogwr Ridgeway Walk National Trail's as recorded on OS maps. The value of the view is assessed as medium to high.

#### *Sensitivity of Visual Receptors*

- 8.7.173 Receptors are within a nationally designated landscape that includes walkers using a designated long-distance footpath. The majority of receptors are at a location that is valued for its views, although not towards the proposed development and will be undertaking an activity related to the landscape and therefore may be responsive to the type and size of wind farm proposed. Sensitivity of visual receptors is assessed as high.

#### *Existing View (including operational and under construction wind farms)*

- 8.7.174 From this elevated location, looking west, the wooded hill of Mynydd y Castell is a recognisable feature within the middle ground of the view. Whilst extending above the ridgeline that is formed by the lower slopes of Mynydd Margam, the turbines of Mynydd Brombil Wind Farm can be seen. To the south-west there are good views across the parkland within Margam Park towards the steel works at Port Talbot and Eglwys Nunydd Reservoir. Beyond the steel works are views towards the Bristol Channel and Swansea Bay, with Gower Peninsula visible in the far distance. To the south-east, there are further views across Margam Park and the gently undulating agricultural landscape beyond. Several woodland blocks are scattered throughout this part of the view, which also includes the settlements of Pyle, Bridgend and Porthcawl, where the turbines of Newton Down and Parc Stormy Down are visible within the far distance and the Bristol Channel beyond. To the north there are views across the mosaic upland landscapes that extend across the slopes of Mynydd Margam. Dense coniferous productive forestry, some of which has been recently felled, covers the ridgeline and screens longer views to the north.

#### *Predicted View (including operational and under construction wind farms)*

- 8.7.175 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.52a – 8.52f. The wirelines and photomontage indicate that 13 of the 18 proposed turbines will potentially be visible from this location. Of the 13 visible, eight will potentially be visible at partial tower height, 1 at hub height and 4 at blade tip height. To the west, the operational Mynydd Brombil wind farm is visible and to the south Newton Down and Parc Stormy Down wind farms. However, as illustrated by the photomontage (Figure 8.52f) and due to existing forestry, T10 and T12 will be visible at blade tip level, as opposed to hub height. Turbines T6 and T7 will be screened from view entirely.

#### *Magnitude of Visual Impacts (including operational and under construction wind farms)*

- 8.7.176 At a distance of 2.33 km to the nearest turbine, the proposed development will be viewed at relatively close distance and would form a large-scale feature. However, due to the open panoramic views that are afforded from this location, it will occupy only a small proportion of the overall view. The turbines will form a balanced and coherent arrangement on the gently undulating slopes of Mynydd Margam. The turbines are evenly spaced and perceived as receding beyond the landform to varying degrees. Mynydd Brombil Wind Farm is visible to the west and separated visually from the proposed development to the north by an open upland pasture and forested skyline. Nearer to the proposed development there are no visible man-made vertical elements and the turbine scale is considered to be proportional to the simple expansive landscape. Whilst there will be a notable change in views to the north, the key features that define this view are all to the south. The panoramic views across the coastal plain in particular will be retained. Views are likely to be moderate to short in duration as walkers travel along the footpath. The magnitude of impacts is predicted to be medium to high.

#### *Significance of Visual Effects (including operational and under construction wind farms)*

- 8.7.177 The sensitivity of receptors is considered to be high, and the magnitude of impacts is predicted to be medium to high and therefore the significance of effects on visual amenity are predicted to be moderate-substantial (significant).

#### *Predicted Cumulative View (In combination with all cumulative development)*

- 8.7.178 Figures 8.52a to 8.52 illustrate that in addition to the proposed development, all or some of the turbines to the existing wind farms/single turbine developments of Hill House, Ford Motor Company, Haregrove Farm, Newton Down, Parc Stormy Down, Newlands, Queens Dock and Mynydd Brombil and the consented development at Land at Kenfig Industrial Estate, Margam may all be visible from this location.

#### *Magnitude of Cumulative Impacts (In combination with all cumulative development)*

- 8.7.179 Cumulative wind farm development is visible within the view to the south, east and west. Following construction of the proposed development, turbines will extend to views north and will be the most prominent of all developments. Although wind farm development will be visible in all arcs of view, due to the size, number, and the scale of the receiving landscape, it will only be prominent in views to the north, with and therefore no perceived sense of being surrounded by wind farm developments. The magnitude of cumulative impacts is predicted to be medium.

#### *Significance of Cumulative Visual Effects (In combination with all cumulative development)*

- 8.7.180 The sensitivity of receptors is considered to be high, and the magnitude of cumulative impacts is predicted to be medium and therefore the significance of cumulative effects on visual amenity are predicted to be moderate-substantial (significant).

#### *Significance of Effects on Visual Amenity following NRW Forestry Management*

- 8.7.181 Due to the scale and undulating nature of the topography from this VP, the visible turbines of the southern section are partially screened by only two existing forestry blocks with current plans for clear felling. *Lines of Sight over NRW Long Term Felling Plan – VP8* indicates that T12, T13, T17 and T18 are viewed behind a block shaded red indicating low impact silvicultural system, therefore there will be no increase in visibility of these turbines, with minor further screening expected as the trees mature. T6, T8, T9, T10, T14, T15 and T16 are all viewed behind two forestry blocks, the first shaded yellow, sitting between 270 m to 310 m elevation, to be felled between 2032 to 2036 and the second shaded dark green comprising sitka spruce, planting year 1951-1955, sitting between 310 m to 330 m elevation, with a currently estimated height of 28 m and estimated height in 2041 of 30 m, to be clear felled between 2042 to 2046. Directly behind this block is a block of young crop comprising sitka spruce, planting years 2003 to 2013, sitting at up to 340 m elevation, which will have had up to 24 years further growth by the time the front blocks are felled, with estimated heights of between 18 m to 19 m by 2046. It is therefore likely that the young crop will provide similar screening effects when the front blocks are felled. T6 and T8 will potentially receive

<sup>2</sup> Cadw/ICOMMOS UK (2000) The Register of Parks and Gardens of Special Historic Interest in Wales (Part I: Parks and Gardens) page 102

greater screening from the young crop as it matures than it currently receives from the existing forestry block, together with increasing screening from the LISS around Nant-y-Glo.

8.7.182 T11 is currently offered minimal screening by the existing forestry, largely being viewed across, and situated in areas of young crop shaded light blue. As these young crops mature, this turbine will be offered some degree of visual screening.

8.7.183 The turbines of the northern section are not visible from this viewpoint.

8.7.184 Evaluations for magnitude of impacts, both individually and cumulatively, will remain as assessed as there will be no perceptible change to views following implementation of the forestry management.

### **Viewpoint 10: St. Illtyd's Walk National Trail, near Cynonville**

*Approximate Distance to Nearest Turbine:* 1.90 km

#### *Susceptibility of Visual Receptors to Change*

8.7.185 The predominant receptor types are predicted to be walkers on a national trail, where the landscape may be the primary reason for their visit. The susceptibility to change of visual receptors is assessed as high.

#### *Value Attached to the View*

8.7.186 From this viewpoint location, there are oblique views towards the proposed development. It is not within a designated landscape and there are no facilities provided. It is however located on the St. Illtyd's Walk National Trail as recorded on OS maps and is noted on the British Pilgrims Trust website as a promoted pilgrim route. The value of the view is assessed as medium to high.

#### *Sensitivity of Visual Receptors*

8.7.187 Receptors are within a not within a designated landscape or at a location recognised for its view, however it includes walkers using a designated long-distance footpath, and therefore undertaking and activity related to the landscape. Sensitivity of visual receptors is assessed as medium to high.

#### *Existing View*

8.7.188 From this viewpoint, looking south there are views across the Afan Valley towards Afan Forest Park and the northern facing slopes of Mynydd Penhydd, which are vegetated predominantly with recently planted coniferous woodland. Mature blocks of coniferous woodland extend along the ridgeline. Views south are restricted by existing vegetation.

#### *Predicted View*

8.7.189 The effect of the proposed development is illustrated by the photograph, wirelines, and photomontages in Figures 8.54a – 8.54f. The wirelines indicate that five of the 18 proposed turbines will potentially be visible from this location. Of the five visible, two will potentially be visible at partial tower height and three at blade tip height. However, as illustrated by the photomontage (Figure 8.54e) T3 will be visible at hub level only due to the screening by existing forestry.

#### *Magnitude of Visual Impacts (including operational and under construction wind farms)*

8.7.190 Views of T1 will form a new, large-scale feature within the landscape, with T3 located on relative low point on the skyline to the east. Although views of the proposed development will be restricted by topography and limited to the partial tower height of turbine T1 and the blade tips of turbines of T2, T3, T4 and T5 and will be brief in duration, walkers travel along the footpath, the turbines at this close distance will be a prominent feature. In addition to the turbines, the meteorological mast will also be a notable feature. The magnitude of impacts is predicted to be medium.

#### *Significance of Visual Effects (including operational and under construction wind farms)*

8.7.191 The sensitivity of receptors is considered to be medium to high, and the magnitude of impacts is predicted to be medium and therefore the significance of effects on visual amenity are predicted to be moderate. Effects are considered to be significant as the turbines to the proposed development will be a prominent element, that will fundamentally change the nature of the existing view.

#### *Predicted Cumulative View (consented wind farms)*

8.7.192 Figures 8.54a to 8.54d illustrate that in addition to the proposed development and the operational schemes, the consented schemes of Foel Trawsnant are theoretically visible.

#### *Magnitude of Cumulative Impacts (consented wind farms)*

8.7.193 The construction of the proposed development will result in an increase in the proportion of the view in which wind turbines are visible when viewed in combination with the consented turbines of the wind farm of Foel Trawsnant. Wind farm development will be an apparent large-scale feature across a currently undeveloped ridgeline and therefore there will be a fundamental change in the view. Views, however, will be very brief in duration. The magnitude of cumulative impacts is predicted to be medium to high.

#### *Significance of Cumulative Visual Effects (consented wind farms)*

8.7.194 The sensitivity of receptors is considered to be medium to high and the magnitude of cumulative impacts is predicted to be medium to high and therefore the significance of cumulative effects on visual amenity are predicted to be moderate – substantial (significant).

#### *Magnitude of Cumulative Impacts (In combination with all cumulative development)*

8.7.195 The construction of the proposed development will result in an increase in the proportion of the view in which wind turbines are visible when viewed in combination with the turbines of the wind farm of Foel Trawsnant. Wind farm development will be an apparent large-scale feature across a currently undeveloped ridgeline and therefore there will be a fundamental change in the view. Views however will be very brief in duration. The magnitude of cumulative impacts is predicted to be medium to high.

#### *Significance of Cumulative Visual Effects (In combination with all cumulative development)*

8.7.196 The sensitivity of receptors is considered to be medium to high and the magnitude of cumulative impacts is predicted to be medium to high and therefore the significance of effects on visual amenity are predicted to be moderate -substantial (significant).

### **Viewpoint 11: Wales Coast Path, Ogmere-by-Sea**

*Approximate Distance to Nearest Turbine:* 14.23 km

#### *Susceptibility of Visual Receptors to Change*

8.7.197 The predominant receptor types are predicted to be walkers on a national trail, where views of the seascape may be the primary reason for their visit. By virtue of the location of the receptors at approximately 14km from the proposed development, some visual change of the type proposed may be accommodated. The susceptibility to change of visual receptors is assessed as medium.

#### *Value Attached to the View*

8.7.198 From this viewpoint, which is located on the Wales Coast Path and within the Glamorgan Heritage Coast, the main visual focus is south across the adjacent open water and views towards the proposed development are direct when travelling west. There are no facilities provided for enjoyment of the views and, while the area, including the Wales Coast Path is noted within tourist literature/websites, there are no specific references to the viewpoint location. The value of the view is assessed as high.

*Sensitivity of Visual Receptors*

- 8.7.199 Receptors are within a regionally designated landscape, using a designated long-distance footpath and therefore undertaking an activity related to the seascape/landscape. However, wind farm developments are an existing feature of views and therefore may be able to accommodate some new visual elements of the type proposed. Sensitivity of visual receptors is assessed as medium to high.

*Existing View*

- 8.7.200 From this location on the Wales Coast Path, views across the Bristol Channel and its wide expanse of open water dominate, which also includes the broad sweeping sandy bay of Traeth y Afon. Looking west across the bay the vegetated dunes of Merthyr Mawr form a backdrop to the beach. Within the dunes the caravans within Happy Valley Caravan Park are visible, with the turbines of Newton Down and Parc Stormy Down extending above the ridgeline beyond. Further to the west is Newton Point, which includes the caravans at Trecco Bay Holiday Park and the built form within the town of Porthcawl, further south. To the north east and within foreground views is an open-air car park, together with the predominantly detached houses and bungalows within the village of Ogmored-by-Sea. Extending above the ridgeline of the houses and constraining views further north are the lower slopes of Ogmored Down, which is typically vegetated with gorse.

*Predicted View*

- 8.7.201 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.55a – 8.55d. The wirelines indicate that all 18 proposed turbines will potentially be visible from this location with broadly consistent spacing and maximum elevation from left to right of view. Of the 18 visible, nine will potentially be visible at either full or partial tower height, three at hub level and six at blade tip height. However, as illustrated by the photomontage (Figure 8.55d) turbine T17 will be visible at hub level only and turbines T1, T5, T9, T12 and T13 will be visible at blade tip level only, due the screening by existing vegetation.

*Predicted Cumulative View (In combination with all cumulative development)*

- 8.7.202 Figure 8.55a illustrates that in addition to the proposed development, all or some of the turbines to the existing wind farm developments of Mynydd Brombil, Newton Down, Parc Stormy Down and Llynfi Afan REP, plus the consented turbines of Foel Trawsnant and Upper Ogmored may all be visible from this location.

*Magnitude of Cumulative Impacts (In combination with all cumulative development)*

- 8.7.203 The proposed development and all other cumulative developments will be viewed within the same arc of view, however, due to topography and existing vegetation, the turbines of Mynydd Brombil, Llynfi Afan REP, Upper Ogmored and Foel Trawsnant wind farms will all be minor to imperceptible features within the view. Therefore, cumulative impacts will predominately be a result of the combined impacts between the turbines to Newton Down and Parc Stormy Down and the proposed development. There will be an increase in the proportion of the view in which wind turbines are visible following construction of the proposed development and they will form a recognisable new element. However, they will be perceived to be at smaller scale than the other cumulative developments. The proposed development and other cumulative developments will occupy only a very small proportion of the overall view available from this location and views will be short in duration. Wind turbines, while noticeable, will not be the defining feature of views. The magnitude of cumulative impacts is predicted to be medium.

*Significance of Cumulative Visual Effects (In combination with all cumulative development)*

- 8.7.204 The sensitivity of receptors is considered to be medium to high and the magnitude of cumulative impacts is predicted to be medium and therefore the significance of cumulative effects on visual amenity are predicted to be moderate – substantial (significant).

**Viewpoint 13: Junction of Heol Gelli Lenor and Brynllwarch, Maesteg**

*Approximate Distance to Nearest Turbine:* 2.15 km

*Susceptibility of Visual Receptors to Change*

- 8.7.205 The predominant receptor types are predicted to be residents where the main views are orientated towards the proposed development. The susceptibility to change of visual receptors is assessed as high.

*Value Attached to the View*

- 8.7.206 From this viewpoint location, there are primary views towards the proposed development, however it is not within a designated landscape, recorded on OS maps or included within tourist information literature and there are no facilities provided. However, the view will be valued as a backdrop by local residents. The value of the view from this viewpoint towards the proposed development is assessed as medium.

*Sensitivity of Visual Receptors*

- 8.7.207 Receptors are not located within a designated landscape or at a location that is valued for its views, however the majority of receptors will be residents who may be particularly responsive to wind farm development of the type and size proposed. Sensitivity of visual receptors is assessed as high.

*Existing View*

- 8.7.208 From this residential area of Maesteg, the view south-west is towards the nearby slopes of Moel Sychbant and Mynydd Bach, which rise above the rooflines of the properties to Heol Gelli Lenor and restrict longer distance views across the landscape. The slopes are typically vegetated with productive coniferous forestry, some of which has been felled to leave open areas of ground. The southern slopes of Moel Sychbant are more open in character and include areas of upland pasture enclosed by a mix of post and wire fences and hedgerows. Steel lattice electricity pylons and overhead electricity cables extend across the foreground of the view, as well as street lighting, telephone poles and cabling.

*Predicted View*

- 8.7.209 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.57a – 8.57h. The wirelines indicate that 16 of the 18 proposed turbines would potentially be visible from this location. Of the 13 visible within the southern section, 11 will potentially be visible at partial tower height and two at hub height. However, as indicated in Figure 8.57f, due to existing forestry turbine T10 will be viewed at hub height as opposed to partial tower height, turbines T11, T12, T15 and T17 will be visible at blade tip level only, and turbines T16 and T18 will be screened from view entirely. Of the three visible within the northern section, all will be potentially visible at blade tip height only. However, adjacent housing is predicted to screen these three turbines from view.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

- 8.7.210 The turbines to the proposed development will be viewed at relatively close distance and will be an immediately apparent and visually prominent feature, occupying a notable proportion of views available from this location. The turbines will form a coherent and equally spaced arrangement on the skyline to the west, sitting comfortably on the lower ground below the prominent landform of Moel Sychbant. Turbines further to the west will be viewed receding over the skyline and diminishing in scale with increasing distance from the viewpoint. The proposed development will be comparable in scale to the intervening steel lattice pylon in the foreground. There will, however, be some interaction between the pylon and T13 to the rear. Views are predicted to be long in duration. The magnitude of impacts is predicted to be medium to high.

*Significance of Visual Effects (including operational and under construction wind farms)*

8.7.211 The sensitivity of receptors is considered to be high and the magnitude of impacts is predicted to be moderate to high and therefore the significance of effects on visual amenity are predicted to be moderate - substantial (significant).

*Significance of Effects on Visual Amenity following NRW Forestry Management*

8.7.212 From this viewpoint, *Lines of Sight over NRW Long Term Felling Plan – VP13* indicates that T9, T10, T11, T14, T15, T16, T17 and T18 are all visible to some degree looking towards the south-west. Each of these turbines are viewed behind blocks of forestry on Moel Sychbant / Waun Lluest-wen shaded red indicating low impact silvicultural systems, brown indicating minimum intervention, and hatched indicating nature reserve and long-term retention. Therefore, the visibility of these turbines will not be increased due to planned forestry operations, although there may be minimal further screening as the trees mature.

8.7.213 Turbines T8, T12 and T13 are viewed up the small valley to the west of the VP and within their sightlines include blocks of forestry to be felled. These include blocks shaded yellow comprising sitka spruce, planting years 1980 to 1990, sitting at 250 m to 280 m elevation and with an anticipated height in 2031 of 25 m to 28 m, to be felled between 2032 to 2036, light green comprising sitka spruce, 1972, 280 m elevation, 36 m in 2036 to be felled between 2037 to 2041 and dark green comprising sitka spruce, planted 1980 to 1983, up to 280 m elevation, 34 m in 2041, to be felled between 2042 to 2046. However, blocks of forestry to be retained also within the sightlines, notably the block in which T8 is situated shaded red indicating low impact silvicultural system comprising sitka spruce, planted 1987, 280 m elevation, 30 m in 2041, will likely provide similar screening when other areas are felled.

8.7.214 Towards the summit of Mynydd Bach the turbines T6 and T7 contain within their sightlines from this VP lower lying blocks of forestry to be felled shaded orange between 2027 to 2031, yellow 2032 to 2036. However, the current horizon line is formed by a block of young crops with no felling scheduled, along with a block of low impact silvicultural system within its sightline. These blocks will maintain the visual screening of the turbines as other blocks are felled, and as the block mature will offer further, although slight, additional screen of the towers.

8.7.215 The turbines of the northern section are not visible from this VP.

8.7.216 Evaluations for magnitude of impacts, both individually and cumulatively, will remain as assessed as there will be no perceptible change to views following implementation of the forestry management.

**Viewpoint 16: The Princess Margaret Way, Aberavon**

*Approximate Distance to Nearest Turbine: 7.12 km*

*Susceptibility of Visual Receptors to Change*

8.7.217 The predominant receptor types are predicted to be tourists and walkers on a national trail, where views across the seascape may be the primary reason for their visit. However, the main view is not orientated towards the proposed development and therefore the susceptibility to change of visual receptors is assessed as medium.

*Value Attached to the View*

8.7.218 From this viewpoint, which is located on the Wales Coast Path, main views are south across the adjacent wide expanse of Aberavon beach and the open water of Swansea Bay, as opposed to the north and towards the proposed development. Benches orientated south-west towards the open water views across Swansea Bay are located on the promenade for enjoyment of the views and, whilst the area, including the Wales Coast Path is noted within tourist literature/websites, there are no specific references to the viewpoint location. The value of the view from this viewpoint towards the proposed development is assessed as medium to high.

*Sensitivity of Visual Receptors*

8.7.219 Receptors are not within a designated seascape/landscape and at a location that includes many existing visual elements, including wind farm developments, that are an existing feature of views and therefore may be able to accommodate some new visual elements of the type proposed. However, they are also using a designated long-distance footpath and may be likely to be undertaking an activity related to the seascape/landscape. Sensitivity of visual receptors is assessed as medium to high.

*Existing View*

8.7.220 Looking south there are open views across promenade to the wide, flat expanse of sand to Aberavon beach and the open water of the Bristol Channel and to the North Devon coast in the far distance. To the south-east the harbour wall to Port Talbot docks and other dock infrastructure, plus the steel works are all visible, whilst views south-west is across Swansea Bay, towards Kilvey Hill, the urban form of Swansea and Mumbles Head. To the north the rooflines to the houses within the Sandfields area of Aberavon can be seen, with the southern slopes of Mynydd Dinas, Mynydd Emroch, Mynydd Margam and Mynydd Brombil extending above the rooflines and forming the backdrop to views. Within the foreground of views along the promenade and to the north are a multitude of vertical man-made elements including lighting columns, signage and boundary treatments. Located on the ridgeline of Mynydd Emroch together with a communications mast is a solar farm, while the four turbines to Mynydd Brombil Wind Farm are visible, further east upon the ridgeline to Mynydd Brombil.

*Predicted View*

8.7.221 The effect of the proposed development is illustrated by the photograph, wirelines, and photomontages in Figures 8.60a – 8.60f. The wirelines and photomontage indicate that 13 of the 18 proposed turbines will potentially be visible from this location. Of the 13 visible, 10 will potentially be visible at partial tower height and three at blade tip height.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

8.7.222 The proposed development will be an apparent, large-scale feature within the secondary views north, however the turbines will occupy only a limited proportion of the overall view, which are south and south west across the wide expanse of sand and open water of the Bristol Channel. There are a multitude of existing man-made, vertical elements, particularly within the foreground view, including light columns and signage as well as wind turbines on the skyline, dock-side cranes and the steel works in the distance. The proposed turbines will be seen as an additional vertical element within this varied panorama, visible as a coherent grouping on a limited section of the skyline. The scale of the proposed turbines appears proportional to the visible landform of the coalfield plateau within these views and there is some visual separation between the proposed development and the operational Mynydd Brombil Wind Farm. There is some limited interaction between the proposed turbines although the more prominent nearest facing turbines act as a strong visual focus to the views of the proposed development, with the smaller more distant turbines receding beyond the skyline. The key qualities that define the existing view will be retained. The magnitude of impacts is predicted to be medium.

*Significance of Visual Effects (including operational and under construction wind farms)*

8.7.223 The sensitivity of receptors is considered to be medium to high, and the magnitude of impacts is predicted to be medium and therefore, the significance of effects on visual amenity are predicted to be moderate. On balance, effects are considered to be significant, as the proposed development would be visually prominent to the extent that it would change the appearance of the backdrop of views east.

*Predicted Cumulative View (in combination with all cumulative wind farms)*

8.7.224 Figure 8.60a – 60d illustrates that in addition to the proposed development, all, or some of the turbines to the existing wind farms/single turbine developments of Mynydd Brombil, Haregrove Farm, Newlands, Newton Down,

Parc Stormy Down, Queens Dock, Swansea Bay WWTW, Mynydd y Gwair Resubmission, Mynydd y Betws and Mynydd y Gwrhyd Resubmission, may all be visible from this location.

*Magnitude of Cumulative Visual Impacts (in combination with all cumulative wind farms)*

8.7.225 The existing developments of Mynydd y Gwair Resubmission, Mynydd y Betws and Mynydd y Gwrhyd Resubmission will all be screened from view by existing built form and due to distance, all other developments, except for the proposed development and the existing turbines of Mynydd Brombil Wind Farm, will be minor elements within the view. Looking east, the turbines of the proposed development will be seen within the same arc of view to the turbines of Mynydd Brombil Wind Farm. They will extend the prominence of turbines along the ridgeline, which forms the backdrop to this part of the view and will be a recognisable new element. However, these two developments will occupy only a small proportion of the overall view and will not change key existing elements within the view, including views across the open water and towards Mumbles Head. The magnitude of cumulative impacts is predicted to be medium.

*Significance of Cumulative Visual Effects (in combination with all cumulative wind farms)*

8.7.226 The sensitivity of receptors is considered to be medium to high and the magnitude of cumulative impacts is predicted to be medium and therefore, the significance of cumulative effects on visual amenity are predicted to be moderate (significant). There will be a notable cumulative change to the key defining visual qualities that currently define the view.

### Viewpoint 17: Margam Park

*Approximate Distance to Nearest Turbine: 2.89 km*

*Susceptibility of Visual Receptors to Change*

8.7.227 The predominant receptor types are predicted to be tourists visiting the park, where the landscape may be a primary reason for their visit. Receptors are within a recognised tourist attraction where views of the surroundings are an important contributor to the experience. The susceptibility to change of visual receptors is therefore assessed as high.

*Value Attached to the View*

8.7.228 The viewpoint is located within the Margam SLA and a Registered Landscape of Special Historic Importance, which is also a Grade I Registered Park and Garden. Views south from the Margam Castle are noted within the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales<sup>3</sup>, however, as recorded within the Register, the view does contain man-made elements including the steel works at Port Talbot and other large-scale developments and transport corridors on the coastal plain. From the viewpoint location itself which is located on a high point on the grassland behind the castle where a couple of timber benches are located, there are primary views north towards the proposed development. The value of the view is assessed as high.

*Sensitivity of Visual Receptors*

8.7.229 Receptors are within a locally and nationally designated landscape and may be responsive to the type of development proposed and at a location valued for its views that contribute to the setting of this landscape. The sensitivity of visual receptors is assessed as high.

*Existing View*

8.7.230 This location is representative of the worst case for otherwise occasional glimpsed views that are available within the lower parkland areas. This particular view extends across the open, flat grassland towards Margam Castle, which sits at the foot of the rounded slopes of Mynydd y Castell. The hill is largely covered by deciduous trees, although pines cover higher parts. Located within the woodland and to the north-west of the castle, the ruins of Margam Abbey are visible. Further around to the west, there are glimpsed and filtered views through existing vegetation towards the steel works and other large scale industrial developments on the coastal plain and to

Swansea in the far distance. To the north-east, a large broadly rectangular shaped pond can be seen within the foreground, beyond which there is a block of pine trees, which contains the Go Ape Forest adventure attraction. Beyond the stand of trees, are the south facing scarp slopes of Mynydd Margam, which rise steeply and where just below the ridgeline, the square blocks of coniferous forestry known as Brest Plantations can be seen.

*Predicted View*

8.7.231 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.61a – 8.61f. The wirelines indicate that 10 of the 18 proposed turbines will potentially be visible from this location. Of the 10 visible, four will potentially be visible at partial tower height only and remaining six at blade tip height only. However, as illustrated by the photomontage (Figure 8.61f), due to existing vegetation, turbines T18 will be visible at blade tip level only and T8, T13 and T17 will be screened from view entirely.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

8.7.232 The proposed development will be a recognisable new feature of moderate scale within views north. The turbines will form a coherent and equally spaced cluster, balanced comfortably against the prominent adjacent wooded landform of Mynydd-y-Castell. Beyond this distinctive landform, away to the west, views towards Margam Castle will remain unchanged. There will also be no change to the primary views south from Margam Castle and across the adjacent parkland. In addition, the scarp slope and slopes rising to Mynydd Margam will restrict the proportion of the turbine towers visible, reducing their perceived sense of scale and dominance within the landscape. Although they will occupy only a relatively small proportion of the overall view, however, will form a prominent new feature on the skyline at this relatively close distance. The magnitude of impacts is predicted to be medium to high.

*Significance of Visual Effects (including operational and under construction wind farms)*

8.7.233 The sensitivity of receptors is considered to be high and the magnitude of impacts is predicted to be medium to high and therefore, the significance of effects on visual amenity are predicted to be moderate - substantial (significant).

*Significance of Effects on Visual Amenity following NRW Forestry Management*

8.7.234 From this VP turbines T13, T17 and T18 are partially or fully screened by ancient woodland within Margam Park itself and therefore their visibility will not be affected by any future forestry activities within the study site. T10, T11 and T16 are also screened by trees and other vegetation within the park and the topography of Margam Ridge and not any areas of forestry so will not be affected by any future forestry activities.

8.7.235 The *Lines of Sight over NRW Long Term Felling Plan – VP17* indicates that T9 and T15 are viewed behind and partially screened by a forestry block; shaded dark green to be clear felled between 2042 to 2046. The distant horizon line behind these blocks is the summit of Mynydd Margam at 330 m elevation, is formed by a block of young crop, this will have had a further up to 24 years growth by the time the front blocks currently breaking the skyline are felled. It is therefore likely that the young crop will provide similar screening effects when the front blocks are felled. T9's tower is fully screened by the topography.

8.7.236 T8 is currently largely screened by the topography alone with only blocks indicated as young crops visible in its sightline. As these blocks mature it is likely T8 will become further screened by forestry.

8.7.237 T14 currently receives little visual screening, with only blocks indicated as young crops visible in its sightline. As these blocks mature it is likely that more of the tower will become screened, coming close to hub height over time.

8.7.238 The turbines of the northern section are not visible from this viewpoint.

8.7.239 Evaluations for magnitude of impacts, both individually and cumulatively, will remain as assessed as there will be no perceptible change to views following implementation of the forestry management.

<sup>3</sup> Cadw/ICOMMOS UK (2000) The Register of Parks and Gardens of Special Historic Interest in Wales (Part I: Parks and Gardens)

**Viewpoint 19: Wales Coast Path, Rest Bay / Royal Porthcawl Golf Club, Porthcawl**

*Approximate Distance to Nearest Turbine: 10.13 km*

*Susceptibility of Visual Receptors to Change*

- 8.7.240 The predominant receptor types are predicted to be walkers on a national trail, where the views of the surrounding seascape may be the primary reason for their visit. However, the main view is not orientated towards the proposed development and therefore the susceptibility to change of visual receptors is assessed as medium.

*Value Attached to the View*

- 8.7.241 From this viewpoint, which is located on the Wales Coast Path and within the Porthcawl SLA, the main views are south across the adjacent open water and therefore views north towards the proposed development are in the opposite direction. There are no facilities provided for enjoyment of the views and, whilst the area, including the Wales Coast Path, is noted within tourist literature/websites, there are no specific references to the viewpoint location. The value of the view from this viewpoint is assessed as medium to high.

*Sensitivity of Visual Receptors*

- 8.7.242 Receptors are within a locally designated landscape, using a designated long-distance footpath and therefore undertaking an activity related to the seascape/landscape. However, wind farm developments and other industry are an existing feature of some views and receptors therefore may be able to accommodate some new visual elements of the type proposed. The sensitivity of visual receptors is assessed as medium to high.

*Existing View*

- 8.7.243 From this location on the Wales Coast Path, views south extend across the rocky foreshore, which include the low, rocky headland of Sker Point and the wide, open expanse of water of the Bristol Channel. To the north lies Royal Porthcawl Golf Club, a links course, whose landform is gently undulating and consists of the managed fairways, greens and the less managed rough, which is predominantly gorse. To the north and within the far distance, the ridgelines of Mynydd Baedan, Mynydd Ty-talwyn, Moel Ton-mawr, Mynydd Margam, Ergyd Isaf and Mynydd Emroch form the backdrop to the view. Extending across the ridgeline are blocks of coniferous forestry, which contrast with the more open upland moorland landscape. The Brest Plantations within Margam Park can be seen as can the four turbines to Mynydd Brombil Wind Farm. Looking north-west the flues to the steel works at Port Talbot are visible, and beyond these in the distance, Swansea Bay and the built form of Swansea.

*Predicted View*

- 8.7.244 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.63a – 8.63f. The wirelines indicate that all 18 proposed turbines will potentially be visible from this location. Of the 18 visible, 10 will potentially be visible at partial tower height, two at hub height and six at blade tip height. However, as illustrated by the photomontage (Figure 8.63f), due to existing vegetation, turbines T9 and T12 will be visible at hub height only as opposed to partial tower height, T7 and T8 will be visible at blade tip level only and turbine T5 will be screened from view entirely.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

- 8.7.245 The proposed turbines will form a recognisable new feature within the views north, including movement of the turbine blades and may be viewed for a moderate duration of time as receptors walk along the Coastal Path, while primary views across the open water of the Bristol Channel will remain unchanged. The proposed turbines, which will be viewed at approximately 10 km to the nearest turbine, will, however, occupy a very limited proportion of the overall expansive open view and will be seen within a large-scale, simple and open landscape. The scale of the proposed turbines is considered proportional to the height of the landform and the proposed development is visually separate from operational windfarm developments to the west at Mynydd Brombil and to the north at Pen

y Cymoedd and elsewhere. The proposed development, therefore, while apparent, will not dominate. The magnitude of impacts is predicted to be medium to low.

*Significance of Visual Effects (including operational and under construction wind farms)*

- 8.7.246 The sensitivity of receptors is considered to be medium to high, and the magnitude of impacts is predicted to be medium to low and therefore the significance of effects on visual amenity are predicted to be moderate. On balance, effects are considered to be significant, as the proposed development would be a visually notable feature to the extent that it would change the appearance of views north.

**Viewpoint 20: Pen Parcau, Bettws**

*Approximate Distance to Nearest Turbine: 6.84 km*

*Susceptibility of Visual Receptors to Change*

- 8.7.247 The predominant receptor types are predicted to be residents. Therefore, the susceptibility to change of visual receptors is assessed as high.

*Value Attached to the View*

- 8.7.248 From this viewpoint location, views from adjacent properties towards the proposed development are oblique. It is not located within a designated landscape, recorded on OS maps or included within tourist information literature and there are no facilities provided. The value of the view from this viewpoint towards the proposed development is assessed as medium to low.

*Sensitivity of Visual Receptors*

- 8.7.249 Receptors are not located within a designated landscape or at a location that is valued for its view, however the majority of receptors will be residents who may be particularly responsive to wind farm development of the type and size proposed. Sensitivity of visual receptors is assessed as medium to high.

*Existing View*

- 8.7.250 From this residential area located to the northern edge of the village, the rounded topography of Craig yr Hudol which includes deciduous woodland belts to its lower slopes are a feature within middle distance views. There are longer distance views east across the Llynfi Valley and towards the settlement of Pont-rhyd-y-cyff that sits at the foot of Garth Hill and Moel Cynhordy and which form the western facing slopes of the valley. The eastern facing slopes of the Llynfi Valley are gently sloping and predominantly consist of large agricultural fields enclosed by hedgerows, with scattered deciduous woodland blocks and occasional trees. Steel lattice electricity pylons and overhead cables extend across the lower slopes of the valley and a number of farmsteads are located throughout. The backdrop to the view is formed by the ridgelines of Mynydd Ty-talwyn, Mynydd Margam and Mynydd Bach, which contain a mix of open upland grassland and coniferous productive woodland forestry.

*Predicted View*

- 8.7.251 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.64a – 8.64f. The wirelines indicate that all 18 proposed turbines will potentially be visible from this location. Of the 18 visible, 15 will potentially be visible at partial tower height, two at hub level and one at blade tip height.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

The proposed development will extend across a significant proportion of views to the skyline to the north-west, where it will be seen as a recognisable new element of moderate scale. It will be visible in two distinct groups extending across a relatively simple and flat plateau, balanced against the rounded higher topography of Craig-yr Hudol. The turbines are visible at partial tower height and are considered to be proportional to the vertical height of the visible landform. Although there are instances of interaction between some turbines, the layout overall appears coherently spaced along the horizon. Views of the proposed turbines will be medium in distance and

oblique from the nearby properties; however, the turbines are predicted to be seen as an apparent feature that is likely to be visually prominent. The magnitude of impacts is predicted to be medium.

*Significance of Visual Effects (including operational and under construction wind farms)*

- 8.7.252 The sensitivity of receptors is considered to be medium to high, and the magnitude of impacts is predicted to be medium and therefore the significance of effects on visual amenity are predicted to be moderate – substantial (significant).

*Predicted Cumulative View (consented wind farms)*

- 8.7.253 Figures 8.64a to 8.64d illustrate that in addition to the proposed development and the operational schemes, the consented scheme of Foel Trawsnant is theoretically visible.

*Magnitude of Cumulative Impacts (consented wind farms)*

- 8.7.254 The consented turbines of Foel Trawsnant Wind Farm are viewed as a relatively tight cluster, where views are limited to upper sections of the turbines by the topography of Craig yr Hudol. Impacts on visual amenity are therefore predicted to arise as a result of the addition of the proposed development that intensifies and extends the influence of wind turbines across the ridgeline. The turbines to the northern section of the proposed development are likely to be viewed as an extension to the consented wind farm, albeit at a larger scale in terms of turbine height. The magnitude of cumulative impacts is predicted to be high.

*Significance of Cumulative Visual Effects (consented wind farms)*

- 8.7.255 The sensitivity of receptors is considered to be medium to high, and the magnitude of cumulative impacts is predicted to be high and therefore the significance of cumulative effects on visual amenity are predicted to be moderate – substantial (significant).

*Predicted Cumulative View (In combination with all cumulative development)*

- 8.7.256 Figure 8.64a – 8.64d illustrates that in addition to the proposed development, all or some of the turbines to the existing wind farm of Gelli Las Farm, plus the consented development of Foel Trawsnant may be visible from this location.

*Magnitude of Cumulative Impacts (In combination with all cumulative development)*

- 8.7.257 Due to the screening effects of built form the existing turbines to Gelli Las Farm, will be screened from view and therefore only the turbines to the proposed development of Foel Trawsnant will be visible. Nine of the 11 turbines of Foel Trawsnant will be visible, and with the exception of two turbines that are visible at partial tower height, views will be restricted to hub and blade tip height and therefore a relatively minor component of the view from this location. The proposed turbines within the northern section will be viewed immediately adjacent to the proposed turbines and therefore within the same arc of view, and together with the turbines within the southern section, will result in an increase in the proportion of the view in which turbines are visible. The magnitude of cumulative impacts is predicted to be high.

*Significance of Cumulative Visual Effects (In combination with all cumulative development)*

- 8.7.258 The sensitivity of receptors is considered to be medium to high, and the magnitude of cumulative impacts is predicted to be high and therefore the significance of cumulative effects on visual amenity are predicted to be moderate – substantial (significant).

### **Viewpoint 23: Margam Park (Access Road)**

*Approximate Distance to Nearest Turbine:* 3.29 km

*Susceptibility of Visual Receptors to Change*

- 8.7.259 Receptors are within a recognised tourist location. However, at this viewpoint, the predominant receptor type is predicted to be motorists travelling along the access road when entering the park, whose main focus is unlikely to be on the landscape. Therefore, the susceptibility to change of visual receptors is assessed as medium to high.

*Value Attached to the View*

- 8.7.260 Located within the Margam SLA and a Registered Landscape of Special Historic Importance, which is also a Grade I Registered Park and Garden. This access road forms the main vehicular gateway into the Park. The value of the view is assessed as high.

*Sensitivity of Visual Receptors*

- 8.7.261 Receptors are within a local and nationally designated landscape where views will be experienced by drivers and passengers enroute to the park only. The sensitivity of visual receptors is assessed as high.

*Existing View*

- 8.7.262 From the road that leads to the main car park, immediate foreground views are across a flat open grassland area that is used for grazing, and which is enclosed by a post and wire timber fence. Adjacent to the area of grassland is a cricket pitch, which includes a pavilion. Beyond the low-lying foreground, the land rises dramatically to the dominating and distinctive rounded, forested, landform of Graig Fawr with glimpsed visibility of Capel Mair, a ruined church, available through the trees. The wooded slopes extend around to the east rising to a less distinctive, more expansive horizon. Nestled within the deciduous trees on the lower slopes, glimpsed and filtered views of the ruins of Margam Abbey and the Orangery are available. Looking further east, the southern edge of Mynydd Margam can be seen rising above the belt of mature, predominantly deciduous trees that border the grassland within the foreground and restrict longer distance views across the park. Set within the trees, the top section of the tower to Margam Castle is visible, as is the toilet block.

*Predicted View*

- 8.7.263 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.67a – 8.67f. The wirelines indicate that 11 of the 18 proposed turbines will potentially be visible from this location. Of the 11 visible, five will potentially be visible at partial tower height, one at hub level and five at blade tip height. However, as illustrated by the photomontage (Figure 8.67f), due to existing vegetation, turbines T14 and T17 will be visible at hub level as opposed to partial tower height, T11 will be visible at blade tip as opposed to hub height and turbines T10 and T12 will be screened from view entirely.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

- 8.7.264 The proposed development will form a recognisable new element of moderate scale within views north to the north-east. The proposed development will be seen rising above the wooded scarp skyline and will be visually balanced against the dominating forested landform of Graig Fawr that rises above the proposed development to the immediate west. The proposed development is coherent and equally spaced along the horizon. The height of the turbines, that are set beyond the ridgeline of Graig Fawr, are considered proportionate to the scale of the wooded scarp slope. Further to the east, views of the turbines are filtered by woodland on the scarp slope and views of the Castle Turret are unobstructed. The magnitude is predicted to be medium to high.

*Significance of Visual Effects (including operational and under construction wind farms)*

- 8.7.265 The sensitivity of receptors is considered to be high, and the magnitude of impacts is predicted to be medium to high and therefore, the significance of effects on visual amenity are predicted to be moderate – substantial (significant).



*Significance of Effects on Visual Amenity following NRW Forestry Management*

- 8.7.266 The *Lines of Sight over NRW Long Term Felling Plan – VP23* indicates that within the sight lines of turbines T12, T13 and T17 there is a block of forestry shaded yellow comprising sitka spruce, sitting at 250 m to 290 m elevation, estimated height in 2031 of 24 m, to be felled between 2032 to 2037. Directly behind this block is a block of low impact silvicultural system shaded red, comprising sitka spruce, 290 m to 310 m elevation, estimated height in 2031 of 29 m, and a block of young crop shaded light blue, this will have had a further up to 15 years growth by the time the front block is felled. It is therefore likely that these blocks will provide similar screening effects when the front blocks are felled. Within the sightline of T14 and T18 there are blocks of forestry shaded purple to be felled between 2022 to 2026. Again, directly behind these blocks is a block of low impact silvicultural system and/or a block of young crop, it is likely that these blocks, particularly the more mature block shaded red will provide similar screening effects when the front blocks are felled.
- 8.7.267 Turbine T8 is only visible at blade tip with the remaining being screened by the topography. Within the sightlines on the horizon is a block of young crop shaded light blue, which as it matures is likely to further screen these blades.
- 8.7.268 The turbines T9, T10, T11, T15, and T16 are not currently visually screened by any forestry within the study site due to the topography and screening provided by the mature foreground woodlands within Margam Park. However, as the central area of young crop matures it may provide some degree of screening to the towers of T9 and T15, although this will be minimal due to the distance of over 3 km.
- 8.7.269 The turbines of the northern section are not visible from this viewpoint.
- 8.7.270 Evaluations for magnitude of impacts, both individually and cumulatively, will remain as assessed as there will be no perceptible change to views following implementation of the forestry management.

**Viewpoint 24: Wales Coast Path, Kenfig Burrows**

*Approximate Distance to Nearest Turbine:* 7.85 km

*Susceptibility of Visual Receptors to Change*

- 8.7.271 The predominant receptor types are predicted to be tourists within a designated landscape and open access land (CRoW Act) where the seascape and landscape may be the primary reason for their visit. The susceptibility to change of visual receptors is assessed as high.

*Value Attached to the View*

- 8.7.272 From this viewpoint, which is located within the Merthyr Mawr, Kenfig and Margam Burrows Landscape of Outstanding Historic Interest and the Kenfig Burrows SLA, views are generally contained by the adjacent dunes and associated scrub vegetation. The site contains several facilities, including a visitor centre, information boards, regarding the site's fauna and flora, and picnic benches. Adjacent to the viewpoint there is a timber bench, although this is orientated to take in views across the nearby waters of Kenfig Pool, rather than towards the proposed development. The site is noted in literature/websites, including Visit Wales. Views across Swansea Bay and to the steel works in Port Talbot are referenced, however views towards the proposed development are not. The value of the view from this viewpoint towards the proposed development is assessed as medium to high.

*Sensitivity of Visual Receptors*

- 8.7.273 Receptors are within a nationally and locally designated landscape and therefore undertaking an activity related to the seascape/landscape. However, wind farm developments, mainly Mynydd Brombil Wind Farm, and other industry including the steelworks are an existing feature of some views, and receptors therefore may be able to accommodate some new visual elements of the type proposed. The sensitivity of visual receptors is assessed as high.

*Existing View*

- 8.7.274 Foreground views extend across the dune system of the burrows that includes rough grassland and scrub vegetation. To the east, the static caravans within Kenfig Pool Holiday Caravan Park, together with glimpsed views of the roofs to the houses within the village of Kenfig, plus the church tower of Saint Mary Magdalene Church within the Mawdlam, are available beyond. To the north-west is the water of Kenfig Pool, where in the distance, the steel works and other industrial development at Port Talbot and Margam can be seen, including a number of tall flues. To the north the upland plateau that includes the ridgelines of Mynydd Emroch, Mynydd Brombil, which includes the four turbines of Mynydd Brombil Wind Farm, Mynydd Margam, Moel Ton-mawr and Mynydd Baeden, where three turbines to the Llynfi Afan REP Wind Farm are visible. In addition to these turbines, the single turbine at Newlands Farm is also visible set against the slopes of Moel Ton-mawr. A line of electricity pylons are also visible crossing the ridgeline adjacent to Mynydd Brombil Wind Farm. The ridgeline contrasts between an open upland grassland landscape and the coniferous productive woodland forestry. On the lower slopes of Mynydd Margam are the five broadly rectangular blocks of coniferous forestry within Margam Park and known as the Brest Plantation and which form a distinctive feature within the view.

*Predicted View*

- 8.7.275 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.68a – 8.68f. The wirelines indicate that 15 of the 18 proposed turbines will potentially be visible from this location. Of the 15 visible, nine will potentially be visible at partial tower height, one at hub level and five at blade tip height. However, as illustrated by the photomontage (Figure 8.68f), due to existing vegetation, turbine T13 will be visible at hub height as opposed to partial tower height, turbines T9 and T12 will be visible at blade tip level only as opposed to hub height and T4 and T5 will be screened from view entirely.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

- 8.7.276 The proposed development will be viewed at over 7.5 km to the nearest turbine. It will occupy a limited extent of the overall view and will be seen to add to a range of manmade features that are widely visible. These include operational wind turbines, existing pylons extending across the skyline and the steel works and other large scale industrial development on the coastal plain around Port Talbot and Margam. The proposed development will form a coherent and visually balanced cluster along a simple and relatively featureless section of the skyline. It is considered that the visible height and horizontal extent of the turbines will be proportional to the vertical height of the landform and expansive nature of the plateau that will host the proposed development. The proposed development will occupy a very small proportion of the overall views available. Although there may be some interaction evident between turbines, the overriding impression will be of a visually balanced grouping. The proposed development will be an apparent large-scale feature visible along the ridgeline, although not visually dominant due to the scale of the receiving landscape in which the proposed turbines will be viewed as well as distance. The magnitude of impacts is predicted to be medium.

*Significance of Visual Effects (including operational and under construction wind farms)*

- 8.7.277 The sensitivity of receptors is considered to be high, and the magnitude of impacts is predicted to be medium and therefore the significance of effects on visual amenity are predicted to be moderate - substantial (significant).

*Predicted Cumulative View (consented wind farms)*

- 8.7.278 Figures 8.68a to 8.68d illustrate that in addition to the proposed development and the operational schemes, the blade tips to the consented wind farm of Upper Ogmore will in theory be visible. However, due to distance and the very limited proportion of turbines visible they are effectively imperceptible. The single turbine development of Land at Kenfig Industrial Estate, Margam will however be visible within the foreground of views north.

*Magnitude of Visual Impacts (consented wind farms)*

8.7.279 The consented turbine on the Land at Kenfig Industrial Estate, Margam would form a notable feature on the coastal plain and within foreground views. It will be backclothed against the hills of the coalfield plateau beyond. The addition of the proposed development and operational development of Mynydd Brombil Wind Farm and Newlands, will significantly add to the influence of wind farm development when view with the consented turbine. However, there is a separation distance between the proposed development and the consented turbine. The turbines of Upper Ogmere will be viewed at blade tip only and there will be no cumulative impacts in the view. The magnitude of cumulative impacts is predicted to be medium to high.

*Significance of Visual Effects (consented wind farms)*

8.7.280 The sensitivity of receptors is considered to be high, and the magnitude of cumulative impacts is predicted to be medium to high and therefore the significance of cumulative effects on visual amenity are predicted to be moderate - substantial to substantial (significant).

*Predicted Cumulative View (scoping stage wind farms)*

8.7.281 Figures 8.68a to 8.68d illustrate that in addition to the proposed development and other operational wind farms, the blade tip height of the single turbine development of Tresgyrch Fawd Fawr Road may be visible from this location. However, only the very tip of the blade will theoretically be visible and at over 27 km away it will be an imperceptible feature of views. Consequently, there will be no cumulative effects as a result of this turbine from this location.

*Predicted Cumulative View (In combination with all cumulative development)*

8.7.282 Figures 8.68a to 8.68d illustrate that in addition to the proposed development, all or some of the turbines of the existing wind farms/single wind farm developments of Mynydd y Gwair Resubmission, Mynydd y Betws, Mynydd Brombil, Newlands, Llynfi Afan REP, Pant y Wal, Pant y Wal Extension, Newton Down, Parc Stormy Down, Queens Dock and Swansea Bay WWTW. To the north within the foreground, the single turbine of Land at Kenfig Industrial Estate will be visible and theoretically the scoping stage single turbine of Tresgyrch Fawd Fawr Road to the north west.

*Magnitude of Cumulative Impacts*

8.7.283 The developments of Newton Down and Parc Stormy Down will be screened from view by local vegetation and therefore the proposed development and all other cumulative developments will be seen with the same arc of view. With the exception of the single Newlands turbine and the turbines of Mynydd Brombil Wind Farm, all cumulative developments will be viewed beyond the turbines of the proposed development and due to a combination of distance and the screening effects of topography, will form minor components of the view. Therefore, the proposed development is predicted to be the most prominent of all developments and will form a recognisable new element that would extend the horizontal extent of turbines visible across the ridgeline, occupying a moderate proportion of the overall view. The magnitude of cumulative impacts is predicted to be medium to high.

*Significance of Cumulative Visual Effects*

8.7.284 The sensitivity of receptors is considered to be high, and the magnitude of cumulative impacts is predicted to be medium to high and therefore the significance of cumulative effects on visual amenity are predicted to be moderate – substantial to substantial (significant).

*Significance of Effects on Visual Amenity following NRW Forestry Management*

8.7.285 From this viewpoint, the closest turbine is over 7.5 km away and closest block of forestry is over 5.5 km, this therefore limits the screening effects on many of the visible turbines due to the forestry's perceived scale.

8.7.286 The Lines of Sight over NRW Long Term Felling Plan – VP24 indicates that turbines T12, T13, T17 and T18 are viewed behind and partially screened by two forestry blocks - the first shaded purple comprising sitka spruce,

planting year 1958, 270 m to 290 m elevation to be felled between 2022 to 2026 and the second shaded yellow comprising sitka spruce, planting year 1954, 250 m to 290 m elevation to be clear felled between 2032 to 2036. Directly behind these blocks are blocks of low impact silvicultural system, shaded red comprising sitka spruce, planting year 1954-1955, elevation 280 m to 310 m, and young crop shaded light blue comprising sitka spruce, planting year 2007, both of which will have had a further up to 14 years growth by the time the front blocks are felled. It is therefore likely that the LISS and young crop will provide similar screening effects when the front blocks are felled.

8.7.287 Turbines T4 and T5 will be visible at blade tip height only and due to distance, will be screened by forestry. Turbine T9 is located behind two forestry blocks. These include blocks shaded yellow comprising sitka spruce, planting years 1980 to 1990, with an anticipated height in 2031 of 25 m to 28 m and to be felled between 2032 to 2036. The second block shaded dark green and comprising sitka spruce, planted 1980 to 1983, with an anticipated height of 34 m in 2041, to be felled between 2042 to 2046. There is a block of young crop shaded light blue comprising sitka spruce, planting year 2007, which will have had a further up to 14 years growth by the time the front blocks are felled. It is therefore likely that this young crop will provide similar screening effects when the other blocks are felled.

8.7.288 Turbines T6, T7, T8, T10, T14, T15 and T16 are all visible on the skyline with varying degrees of screening from the topography and existing forestry.

8.7.289 Within the sightline of T11 Figure – Lines of Sight over NRW Long Term Felling Plan indicates several forestry blocks including ones to be felled, however due to the topography of the area only minimal visual screening is offered by the blocks closer to the ridgeline shaded in brown, indicating minimal intervention, and in red indicating low impact silvicultural system. Behind these is a large block of young crops at a higher level, therefore as this block matures the screening of this turbine is likely to slightly increase.

8.7.290 Evaluations for magnitude of impacts, both individually and cumulatively, will remain as assessed as there will be no perceptible change to views following implementation of the forestry management.

**Viewpoint 25: Bryn East, picnic area opposite Royal Oak Public House**

*Approximate Distance to Nearest Turbine:* 1.16 km

*Susceptibility of Visual Receptors to Change*

8.7.291 The predominant receptor types are predicted to be walkers on a national trail, people using the picnic facilities and also local residents. The landscape may be the primary reason for their visit and therefore the susceptibility to change of visual receptors is assessed as high.

*Value Attached to the View*

8.7.292 The viewpoint is located on St. Illtyd's National Trail, where facilities include picnic benches/table and information boards, although the latter provides historical information that is unrelated to the view. The viewpoint is not noted within tourist literature/websites and is not recognised by or associated with a designated landscape. The value of the view from this viewpoint towards the proposed development is assessed as medium to high.

*Sensitivity of Visual Receptors*

8.7.293 Receptors are not within a designated landscape, or a location which is noted for its views; however, the local landscape forms an important backdrop to the setting of Bryn. In addition, local residents and walkers, will be using the designated long-distance footpath/picnic benches and therefore likely to be undertaking an activity related to the landscape. Sensitivity of visual receptors is assessed as high.

*Existing View*

8.7.294 Looking south from this location, situated on the eastern edge of the village, the foreground views include the modern detached properties that extend along the unnamed road adjacent to the Public House, Cwm Farteg and Station Road, extending around to the Royal Oak PH to the west. Beyond these buildings, the land formed by the north facing slopes of Mynydd Bach rises steeply above the rooflines. The slopes and ridgelines are predominantly vegetated with dense coniferous forestry and together with the landform restrict further views south. To the west, there are views across the rooftops of Bryn towards the rounded topography of Moel y Fen and Foel Fynyddau, upon which four communications masts sit. The slopes of Foel Fynyddau show evidence of recent tree felling, although a block of coniferous forestry on its southern facing slopes is a noticeable feature. To the north, views are restricted to short distances only by the slopes of Mynydd Penhydd. The slopes are typically vegetated with rough grassland, although coniferous woodland forestry extends along the ridgeline. Also extending across the slopes in a broad east – west direction are steel lattice electricity pylons and overhead cables, often skylining. To the east, there are views along the busy B4282 with associated highways infrastructure including traffic, bus shelters, lamp columns and signage. Views in this direction are flanked by the prominent rounded landforms and slopes of Garn Wen, Rhiw Tor Cymry and around to Mynydd Penhydd to the north and Mynydd Bach to the south. The steel lattice electricity pylons and overhead cables also extend through this part of the view.

*Predicted View*

8.7.295 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.69a – 8.69h. The wirelines indicate that 8 of the 18 proposed turbines will potentially be visible from this location. Of the three visible within the southern section, one will potentially be visible at partial tower height and two at blade tip height. However, due to existing vegetation, T12 will be screened from view. Of the five potentially visible within the northern section, the wireline indicates that all five will be visible at partial tower height. However, due to productive forestry, visibility of turbine T1 will be restricted to hub height as opposed to partial tower height and turbine T3 will be restricted to blade tip level only, as opposed to hub height.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

8.7.296 The proposed development will be viewed at close distance and be viewed as an immediately apparent and large-scale feature that would occupy a wide proportion of the overall view to the north, where the visible turbines will be coherently spaced on the rounded landforms of Garn Wen. Turbines T3 and T5 will provide a strong visual focus, with the remaining visible turbines receding beyond the skyline. The partial tower heights visible are, in all cases, considered to be proportional to the scale of the landform and extend across a relatively small extent of the overall expansive open panorama. The turbines would be visually dominant in foreground views to the north and are likely to change the overall nature of view. To the south the turbines of T6 and T7 will be restricted to hub and blade tip height only due to topography and forestry. On balance, the magnitude of impacts is predicted to be high.

*Significance of Visual Effects (including operational and under construction wind farms)*

8.7.297 The sensitivity of receptors is considered to be high, and the magnitude of impacts is predicted to be high and therefore the significance of effects on visual amenity are predicted to be substantial (significant).

*Significance of Effects on Visual Amenity following NRW Forestry Management*

8.7.298 Within the southern section, turbine T12 is currently fully obscured by the existing forestry blocks shaded on *Lines of Sight over NRW Long Term Felling Plan – VP25* brown indicating minimum intervention, dark orange indicating low impact silvicultural system and light blue indicating young crop. Therefore, as these blocks are all to be retained this turbine will remain obscured. Turbines T6 and T7 have their tower and hub respectively screened at present by a combination of LISS comprising sitka spruce, planting year 1997, up to 260 m elevation, estimate height in 2026 of 12 m, minimum intervention shaded brown and young crops comprising sitka spruce, planting years 1984-1987, elevation 260 m to 310 m, estimated height in 2026 of 22 m to 28 m. With additional growth and no current plans for felling, the degrees of screening for these turbines are likely to increase.

8.7.299 To the north, the turbines T1 and T2 are viewed behind a forestry block shaded orange scheduled to be felled between 2027 to 2031, within which T3 sits towards the front, and so would be revealed in part in the near term by its own necessary construction felling area. As the other coupes within the sightlines are shaded light blue indicating young crops and having only up to nine years additional growth before the orange coupe is clear felled, the visibility of these turbines will increase. At this time the hub of T2 will become visible along with larger portions of the tower of T1, however, as the young crops mature these features will again become screened.

8.7.300 Turbines T4 and T5 are located within blocks of young crop shaded light blue and due to the topography of the landscape the turbines currently receive little screening. As the young crop block matures it will provide some screening to the base of these turbines' towers, however T5's construction felling area may reduce these effects in the shorter term.

8.7.301 Evaluations for magnitude of impacts, both individually and cumulatively, will remain as assessed as there will be no perceptible change to views following implementation of the forestry management.

**Viewpoint 26: Ogwr Ridgeway Walk near Y Bwlwarcaw Hillfort**

*Approximate Distance to Nearest Turbine: 1.42 km*

*Susceptibility of Visual Receptors to Change*

8.7.302 The predominant receptor types are predicted to be walkers on a national trail, where the landscape may be the primary reason for their visit. The susceptibility to change of visual receptors is assessed as high.

*Value Attached to the View*

8.7.303 Wind turbines are an existing feature of views, however the viewpoint is located on Ogwr Ridgeway Walk National Trail, as noted on OS maps and is also set within the Margam SLA and a Registered Landscape of Special Historic Interest. The value of the view from this viewpoint towards the proposed development is assessed as medium to high.

*Sensitivity of Visual Receptors*

8.7.304 Receptors are within a locally and nationally designated landscape that includes walkers using a designated long-distance footpath. The majority of receptors will be undertaking an activity related to the landscape. Sensitivity of visual receptors is assessed as high.

*Existing View*

8.7.305 Views west are across an upland landscape of semi-improved grassland that is used for grazing and towards the coniferous productive forestry that extend across much of Mynydd Margam. To the south, views are restricted to short distances only by the slopes of Moel Ton-mawr, which are vegetated with coniferous productive forestry, some of which has been recently felled. To the north-east, there are two groups of operational turbines within views. One is formed by the wind farms of Ffynnon Oer, Pen y Cymoedd and Llynfi Afan REP and a second group is formed by the operational turbines of Pant y Wal, Pant y Wal Extension and Fforch Nest 1 and 2 wind farms. To the east, views are more open and there are good longer distance views across the upland plateaus that sits above the Llynfi Valley, Garw Valley and Ogmore Valley and which include the wind farms of Mynydd Portref, Mynydd Portref Extension and Taff Ely.

*Predicted View*

8.7.306 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.70a – 8.70h. The wirelines indicate that all 18 proposed turbines will potentially be visible from this location. Of the 18 visible the wirelines indicate that, 11 will potentially be visible at either full or partial tower height, four at hub level and three at blade tip height. However, due to existing vegetation, turbine T9 will be visible at hub height as opposed to partial tower height and T17 will be viewed at blade tip level only as opposed to partial tower level. Turbines T1 and T3 are predicted to be screened from view entirely.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

8.7.307 The proposed development will be viewed at a close distance, although within a simple, large scale, upland landscape that already contains extensive widespread operational wind farm development. Due to distance, the proposed turbines would be viewed as an immediately apparent, large-scale feature that will result in an increase in the prominence of wind turbines within the view. Turbines T10, T11 and T16 will form the leading edge to the southern section of the proposed development and a primary focus to views north west. The proposed turbines to the rear of these will recede to varying degrees and with distance across the upland plateaux. The scale of the largest proposed turbines is considered to be proportional to the simple, expansive and open nature of the views from this viewpoint. However, due to the panoramic nature of views from this location, the proposed turbines would not occupy a significant proportion of the view and will not conflict with other features. Longer distance views across the surrounding landscape will remain intact. The magnitude of impacts is predicted to be high.

*Significance of Visual Effects (including operational and under construction wind farms)*

8.7.308 The sensitivity of receptors is considered to be high, and the magnitude of impacts is predicted to be high and therefore the significance of effects on visual amenity are predicted to be substantial (significant).

*Predicted Cumulative View (consented wind farms)*

8.7.309 Figures 8.70a to 8.70d illustrate that in addition to the proposed development and the operational schemes, the consented schemes of Foel Trawsnant, Melin Court, Pant Y Wal Extension Phase 2, Taff Ely Repowering, Graig Fartha and Upper Ogmored are all theoretically visible.

*Magnitude of Cumulative Impacts (consented wind farms)*

8.7.310 The turbines to the wind farms of Foel Trawsnant and Melin Court will intensify the prominence of wind turbine within views north. To the north east, the wind farm of Upper Ogmored will extend the influence of wind turbines further along the skyline from the operational developments of Pen y Cymoedd and Llynfi Afan REP. There is however, little visual interaction between the proposed development and the turbines of Melin Court as these are subsumed within the existing turbines of Pen y Cymoedd Wind Farm. Impacts on visual amenity are predominantly a result of the proposed development, which extends the prominence of wind turbine development further south west along the plateau, when viewed in combination with these two consented developments. There is potential for successive cumulative views with the wind farms of Pant y Wal Extension Phase 2 and Taff Ely Repowering. However, there is no visual relationship between these two developments and the proposed development, as their turbines are subsumed by the operational developments of Pant y Wal/Pant y Wal Extension and Taff Ely respectively. The magnitude of cumulative impacts is predicted to be medium to low.

*Significance of Cumulative Visual Effects (consented wind farms)*

8.7.311 The sensitivity of receptors is considered to be high, and the magnitude of cumulative impacts is predicted to be medium to low and therefore the significance of cumulative effects on visual amenity are predicted to be moderate (significant). Effects are considered to be significant as the proposed development will result in wind turbines extending further south within the view, forming a large-scale element within the landscape compared to other cumulative developments.

*Predicted Cumulative View (In combination with all cumulative development)*

8.7.312 Figures 8.70a to 8.70d illustrate that in addition to the proposed development, all or some of the turbines to the existing wind farms/single turbine developments of Ffynnon Oer, Pen y Cymoedd, Llynfi Afan REP, Bwllfa Farm, Fforch Nest 1 and 2, Pant y Wal, Pant y Wal Extension, Mynydd Portref, Mynydd Portref Extension, Taff Ely, Hill House, Ford Motor Company, Haregrove Farm, Newton Down, Parc Stormy Down and Mynydd Brombil may be visible from this location. In addition, the consented developments of Foel Trawsnant, Melin Court, Pant y Wal Extension Phase 2, Taff Ely Repowering, Graig Fartha and the application developments of Upper Ogmored may also be visible from this location.

*Magnitude of Cumulative Impacts (In combination with all cumulative development)*

8.7.313 The proposed development would be viewed within the same arc of view as the wind farm developments of Ffynnon Oer, Foel Trawsnant and Melin Court, and with the northern extent of turbines of Pen y Cymoedd. All other developments will be viewed in succession. When viewed with the other cumulative developments, the proposed turbines will result in wind turbines extending further south within the view, forming a large-scale element within the landscape compared to other cumulative developments. However, wind farm development is an established feature of the view and therefore, whilst wind farm development will extend across a significant proportion of the view and despite the increase in the prominence of wind farm development, the underlying nature of the view will be retained. The magnitude of cumulative impacts is predicted to be medium to high.

*Significance of Cumulative Visual Effects (In combination with all cumulative development)*

8.7.314 The sensitivity of receptors is considered to be medium, and the magnitude of cumulative impacts is predicted to be medium to high and therefore the significance of cumulative effects on visual amenity are predicted to be moderate to moderate—substantial (significant).

*Significance of Effects on Visual Amenity following NRW Forestry Management*

8.7.315 Within the southern section, *Lines of Sight over NRW Long Term Felling Plan - VP26* indicates turbines T17 and T18 are viewed with their hub and tower respectively screened behind forestry blocks shaded dark green comprising sitka spruce, planting year 1955, elevation up to 330 m, estimated height in 2041 of 23 m to be felled between 2042 to 2046. Directly behind these blocks to be felled is a block of young crop comprising sitka spruce, planting year 2003, elevation up to 340 m, estimated height in 2041 of 18 m, where the turbines are located. This block will have had an additional up to 24 years growth when the other blocks are felled and will therefore likely provide a similar level of screening to the turbine as the other blocks currently offer. The forestry block in front of those to be felled shaded red indicating low impact silvicultural system currently offers no screening due to the topography and tree height, however as these mature, they will likely reinforce the screening behind.

8.7.316 T6, T7, T8, T9, T10, T12, T13, T14, T15 and T16 are all viewed to the rear of a young crop forestry block on the summit of Mynydd Margam shaded light blue comprising a combination of Norway and sitka spruce, planting year 2013, there is therefore currently very little screening of the turbines by the forestry. The area of young crop in which T10 is located is older than that around, comprising sitka spruce, planting year 1993 and provides a degree of screening to the base of the tower. As these blocks mature, they will provide further screening of these turbine towers and blades. In the case of T12 it is possible that as the block matures T12 could be completely obscured, along with the hub of T13.

8.7.317 The closest turbine to the VP, T11, currently has the base of its tower screened by a forestry block shaded purple to be felled between 2022 to 2026. When this is felled the full extent of the turbine will be visible and there are no other forestry blocks to provide mitigation, pending replanting.

8.7.318 Of the northern section, turbines T1 and T3 are currently completely screened by the forestry block shaded purple to be felled between 2022 to 2026 which sits on the horizon line at around 320 m elevation. However, an area of LISS sitting behind at up to 310 m elevation, with estimated heights of 29 m in 2026, may in time provide some degree of screening.

8.7.319 Turbines T2, T4 and T5 all currently have minimal screening by forestry due to the topography and all relevant blocks within their sightlines are to be retained. As the young crop block comprising sitka spruce, planting year 1998, elevation up to 310 m, mature, it may offer additional screening to the towers of all three of these turbines.

8.7.320 Evaluations for magnitude of impacts, both individually and cumulatively, will remain as assessed as there will be no perceptible change to views following implementation of the forestry management.

**Viewpoint 27: Cemetery Eastern Edge of Maesteg**

*Approximate Distance to Nearest Turbine:* 3.02 km

*Susceptibility of Visual Receptors to Change*

8.7.321 The predominant receptor types are predicted to be road users and visitors to the adjacent cemetery. Views of the surrounding landscape may not be the primary reason for their visit. However, views across the Llynfi Valley and the town of Maesteg may contribute to the experience of local recreational users. The susceptibility to change of visual receptors is assessed as medium.

*Value Attached to the View*

8.7.322 From this viewpoint location, there are primary views towards the proposed development, that may be valued by local recreational users and visitors to the cemetery. However, it is not within a designated landscape, recorded on OS maps or included within tourist information literature and there are no facilities provided connected with the enjoyment of the view. The value of the view from this viewpoint towards the proposed development is assessed as medium.

*Sensitivity of Visual Receptors*

8.7.323 Receptors are not located within a designated landscape, or a location formally recognised for its view. Although the views contribute to the setting of the cemetery and open areas nearby. However, the majority of receptors are predicted to be people undertaking an activity unrelated to the landscape and therefore unlikely to be responsive to the size of wind farm proposed. Sensitivity of visual receptors is assessed as medium.

*Existing View*

8.7.324 From this elevated location, there are views across the Llynfi Valley to the north-western parts of Maesteg, and also Nantyffyllon, which largely consist of a mix of terraced and semi-detached houses. Beyond the urban development, the land rises to a series of ridgelines, formed by Foel Fawr, upon which a communication masts sits, Foel y Dyffryn, Rhiw Tor Cymry, Mynydd Bach and Mynydd Margam. The ridgelines are typically a mix of open, upland grassland and blocks of coniferous productive forestry. Lower slopes include agricultural fields enclosed by hedgerows, some of which contain gaps or overgrown. Linear blocks of broadleaved woodland are also found on the lower slopes and along the valley floor. Steel lattice electricity pylons and overhead cables also extend across the view up behind Maesteg and heading westwards.

*Predicted View*

8.7.325 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.71a – 8.71h. The wirelines indicate that all 18 proposed turbines will potentially be visible from this location. Of the 18 visible, 15 will be visible at either full or full tower height, 2 at hub height and 1 at blade tip height. However, as illustrated by the photomontages (Figure 8.71f and 8.71h), due to existing vegetation, turbines T2 and T4 will be viewed at hub height as opposed to partial tower height (albeit entirely screened from view by an individual tree in foreground in photomontage), turbine T12 will be visible at blade tip level only as opposed to hub height level and turbine T1 is predicted to be screened from view entirely.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

8.7.326 The proposed development will be viewed at relatively close range and the turbines will occupy a wide proportion of the available view from this location (albeit with a gap) and blade movement will be noticeable. Although due to the nature of the receptors, views are likely to be short in duration. However, the northern section will be partially filtered by intervening vegetation from this viewpoint and the visible turbines will form a distinct feature more obliquely contained behind the high point of Garn Wen. The turbines within the southern section will be more pronounced than the turbines within the northern section, within open direct views from this viewpoint. The turbines, however, will form a coherent, balanced cluster, receding beyond the skyline. The proposed turbines will

be viewed along the ridgeline and may be seen to contrast with the existing-built form of Maesteg and Nantyffyllon that sits below the proposed development and within the valley floor and lower slopes. The magnitude of impacts is predicted to be medium to high.

*Significance of Visual Effects (including operational and under construction wind farms)*

8.7.327 The sensitivity of receptors is considered to be medium, and the magnitude of impacts is predicted to be medium to high and therefore the significance of effects on visual amenity are predicted to be moderate – substantial (significant).

**Viewpoint 28: Llangynwyd**

*Approximate Distance to Nearest Turbine:* 2.61 km

*Susceptibility of Visual Receptors to Change*

8.7.328 The predominant receptor types are predicted to be residents within the village, visitors to the local public houses and also road users. The susceptibility to change of visual receptors is assessed as medium to high.

*Value Attached to the View*

8.7.329 From this viewpoint location, which is situated within the Western Uplands SLA, there are restricted views towards the proposed development. There are no facilities provided for the enjoyment of the view, however views from The Old House PH towards the Gadlys Valley are noted in tourist information<sup>4</sup>. Some residents may have direct views of the proposed development depending on orientation of properties. The value of the view from this viewpoint towards the proposed development is assessed as medium to high.

*Sensitivity of Visual Receptors*

8.7.330 Receptors are located within a locally designated landscape; however, most receptors are predicted to be people undertaking an activity unrelated to the landscape and therefore may be able to accommodate some new visual elements of the size of wind farm proposed. Sensitivity of visual receptors is assessed as medium to high.

*Existing View*

8.7.331 Looking west from the centre of this small village the foreground view is dominated by the Corner House Inn PH and an additional stone-built building that is located opposite. These buildings screen the majority of the views across the landscape to the west, although there are glimpsed views to the coniferous woodland forestry at nearby Waun y Gilfach and to the eastern slopes of Mynydd Margam and Moel Ton-mawr. Steel lattice electricity pylons and overhead cables are also visible within this part of the view. Views in all other direction are constrained to views within the village by existing trees and built form, including the wall of the nearby St. Cynwyd's Church.

*Predicted View*

8.7.332 The effect of the proposed development is illustrated by the photograph, wirelines and photomontages in Figures 8.72a – 8.72f. The wirelines indicate that 14 of the 18 proposed turbines will potentially be visible from this location. Of the 14 visible, four will potentially be visible at partial tower height, two at hub level and eight at blade tip height. However, as illustrated by the photomontage (Figure 8.72f), due to existing vegetation and buildings all turbines, with the exception of turbine T8, T11, T15 and T16, will be screened from view entirely.

*Magnitude of Visual Impacts (including operational and under construction wind farms)*

8.7.333 The proposed development will be viewed at close distance; however, the majority of the proposed turbines will be screened from view by a combination of topography, built form and vegetation. Turbines T11 and T16 are likely to be immediately apparent features, whilst T15, due to screening, will be a minor element. The spacing of the visible turbines appears coherent and the scale of the turbines retained below the rooflines of the foreground adjacent buildings. The proposed turbines will not be the defining feature within the village as they will occupy only

<sup>4</sup> Visit Bridgend. Available from - <https://www.visitbridgend.co.uk/be-inspired/a-locals-guide-to-llangynwyd> [Accessed 03/04/2023]

a limited proportion of the overall view available from this specific location. Key elements that define the view will all be retained. The magnitude of impacts is predicted to be medium.

*Significance of Visual Effects (including operational and under construction wind farms)*

- 8.7.334 The sensitivity of receptors is considered to be medium to high, and the magnitude of impacts is predicted to be medium and therefore the significance of effects on visual amenity are predicted to be moderate to moderate – substantial (significant).

*Significance of Effects on Visual Amenity following NRW Forestry Management*

- 8.7.335 From this VP the turbines screened to some degree by forestry (as opposed to intervening buildings) are T9, T10, T11, T13, T14 and T15. The turbines T9, T10, T15 and T16 will only be screened by the forestry alone during the winter when the intervening foreground trees are not in leaf. The forestry block providing screening all of these turbines is shaded purple on *Lines of Sight over NRW Long Term Felling Plan – VP28* indicating that it is to be felled between 2022 to 2026. Directly behind this block and sitting at higher elevation is a block of young crop and with an additional up to four years growth will provide a similar degree of screening to the turbines as the block to be felled. The area of young crop located is older than that around, comprising sitka spruce, planting year 1993 and provides a greater degree of screening to the base of the tower. T8 and T9 also benefit from a block of low impact silvicultural system within their sightlines, this will also provide a similar level of screening as currently viewed once the front forestry block is felled.
- 8.7.336 The turbines of the northern section are not visible from this viewpoint.
- 8.7.337 Evaluations for magnitude of impacts, both individually and cumulatively, will remain as assessed as there will be no perceptible change to views following implementation of the forestry management.

### **Viewpoint 36: Mouth of the River Neath**

*Approximate Distance to Nearest Turbine: 10.48 km*

*Susceptibility of Visual Receptors to Change*

- 8.7.338 The predominant receptor types are predicted to be commercial fisherman, plus yacht inshore recreational boat users accessing the marina at Monkstone Cruising and Sailing Club. The seascape may be primary reason for yacht and recreational users for their visit, however this part of Swansea Bay is noted for its visually detracting industrial features along the coastal plain. The susceptibility to change of visual receptors is assessed as medium.

*Value Attached to the View*

- 8.7.339 Located approximately 1.0 km south of the mean low water level of Baglan Bay, this part of Swansea Bay is noted for its association with the industrial landscape that dominates the coastal plain. The value of the view from this viewpoint is assessed as medium.

*Sensitivity of Visual Receptors*

- 8.7.340 Receptors are not within a designated seascape; However, a number of receptors are likely to be undertaking an activity related to the seascape, albeit in one that is dominated by heavy industry. Wind Farm developments are also an existing feature of some views and receptors therefore may be able to accommodate some new visual elements of the type proposed. Sensitivity of visual receptors is assessed as medium.

*Existing View*

- 8.7.341 Swansea docks, including the turbines at Queens Dock, the eastern breakwater wall, cranes and the single wind turbine at Swansea WWTW are likely to be prominent features within views to the north-west. To the north the buildings to Swansea University Bay Campus, the sand dunes of Crymlyn Burrows and the mouth of the River Neath will all be viewed at close distance. To the east, the long stretch of sand to Aberavon Beach, together with the residential area of Sandfields will be also visible at close distance, as will the western breakwater wall to Port

Talbot docks, with the cranes within the harbour and the apparatus of the steel works beyond. Rising beyond the urban and industrial coastal plain, are the scarp slopes of Mynydd Dinas, Mynydd Emroch and Mynydd Brombil, where 4 operational wind turbines are visible. Beyond this the upland areas rise to the high point of Mynydd Margam. To the west there are long distance views to the western half of Swansea Bay and towards Mumbles Head. To the south, on clear days, there will be views to the North Devon coast.

*Predicted View*

- 8.7.342 The effect of the proposed development is illustrated by the wirelines in Figures 8.80a – 8.80d. The wirelines indicate that 17 of the 18 proposed turbines will potentially be visible from this location. Of the 17 visible, 15 will potentially be visible at either full or partial tower height, one at hub height and one at blade tip height.

*Predicted Cumulative View (consented wind farms)*

- 8.7.343 Figures 8.80a to 8.80d illustrate that in addition to the proposed development and the operational schemes, the consented wind farms of Foel Trawsnant will be theoretically visible.

*Magnitude of Cumulative Visual Impacts (consented wind farms)*

- 8.7.344 The consented wind farm of Foel Trawsnant will result in a slight intensification of wind farms visible across the plateau, although due to distance, will be viewed at a smaller scale than the existing turbines of Mynydd Brombil Wind Farm. The turbines to the proposed development will further intensify the visual extent of turbines visible across the plateau and will result in a reduction in the gap between the wind farms of Mynydd Brombil and Foel Trawsnant and due to scale result in wind farms becoming a more noticeable feature of the view, albeit within a moderate proportion of the view. The magnitude of cumulative impacts is predicted to be medium to high.

*Significance of Cumulative Visual Effects (consented wind farms)*

- 8.7.345 The sensitivity of receptors is considered to be medium, and the magnitude of impacts is predicted to be medium to high and therefore the significance of cumulative effects on visual amenity are predicted to be moderate to moderate – substantial (significant).

*Predicted Cumulative View (in combination with all cumulative wind farms)*

- 8.7.346 Figures 8.80a – 8.80d illustrate that in addition to the proposed development, all or some of the turbines may be visible to the existing wind farm/single turbine developments of Mynydd Brombil, Haregrove Farm, Newlands, Newton Down, Parc Stormy Down, Queens Dock, Swansea Bay WWTW, Mynydd y Gwair Resubmission, Mynydd y Betws and Maesgwyn Extension. In addition, the consented developments of Foel Trawsnant may also be visible from this location.

*Magnitude of Cumulative Impacts (in combination with all cumulative wind farms)*

- 8.7.347 Cumulative developments will in theory extend across a wide proportion of views towards the coastline. The turbines to the proposed development will form a notable new element when viewed with other cumulative development, however they will not result in extending wind farm development beyond the current horizontal extent of turbines. They will be viewed within the same part of the view as the operational turbines to the wind farm of Mynydd Brombil and the proposed turbines to the consented wind farm of Foel Trawsnant, albeit at a slightly larger scale. Due to distance and the screening effects of topography, other cumulative developments will be seen as minor elements within the view and not prominent. Therefore, when the proposed development and other cumulative developments are viewed together with other existing manmade elements, it is predicted that the overall quality of the view will remain intact. The magnitude of cumulative impacts is predicted to be medium to high.

*Significance of Cumulative Visual Effects (in combination with all cumulative wind farms)*

8.7.348 The sensitivity of receptors is considered to be medium, and the magnitude of impacts is predicted to be medium to high and therefore the significance of cumulative effects on visual amenity are predicted to be moderate – substantial (significant).

8.7.349 A summary of viewpoints where significant effects on visual amenity are predicted is provided in Table 8.10.

**Table 8.10: Summary of Significant on Effects on Visual Amenity**

VP	Location	Sensitivity	Magnitude	Significance	Magnitude (Cumulative) C -consented A – application Sc - Scoping Co - combined	Significance (Cumulative) C -consented A – application Sc - Scoping Co - combined
1	Evans Terrace, Caerau	Medium to High	High	Substantial (significant)	High (C/Co)	Substantial (C/Co) (significant)
2	Maesteg Golf Course	Medium to high	High to Very High	Substantial (significant)	High to Very High (C) Very High (Co)	Substantial (C/Co) (significant)
3	Bryn (Play area off Neath Road)	Medium to high	High to Very High	Substantial (significant)	-	-
4	Brynna Road, Cwmafan	Medium to high	Medium to High	Moderate – Substantial (significant)	Medium (C/Co)	Moderate – substantial (C/Co) (significant)
8	Margam Park (Deer Park)	High	Medium to High	Moderate Substantial (significant)	Medium (Co)	Moderate - Substantial (Co) (significant)
10	St Illtyds Walk National Trail, near Cynonville	Medium to high	Moderate	Moderate (significant)	Medium to High (C/Co)	Moderate - Substantial (C/Co) (significant)
11	Wales Coast Path, Ogmore-by-Sea	Medium to High	-	-	Medium (Co)	Moderate – Substantial (Co) (significant)
13	Junction of Heol Gelli Lenor and Brynlywarch, Maesteg	High	Medium to high	Moderate - substantial (significant)	-	-
16	The Princess Margaret	Medium to High	Medium	Moderate (significant)	Medium (Co)	Moderate (Co) (significant)

17	Margam Park	High	Medium to High	Moderate – Substantial (significant)	-	-
19	Wales Coast Path, Rest Bay/Royal Porthcawl Golf club, Porthcawl	Medium to High	Medium to low	Moderate (significant)	-	-
20	Pen Parcau, Bettws	Medium to high	Medium	Moderate – Substantial (significant)	High (C/Co)	Moderate – Substantial (C/Co) (significant)
23	Margam Park (Access Road)	High	Medium to High	Moderate – Substantial (significant)	-	-
24	Wales Coast Path, Kenfig Burrows	High	Medium	Moderate – Substantial (significant)	Medium to High (C/Co)	Moderate – Substantial to Substantial (C/Co) (significant)
25	Bryn East, picnic area opposite Royal Oak PH	High	High	Substantial (significant)	-	-
26	Ogwr Ridgeway Walk near Y Bwlwarcau Hillfort	High	High	Substantial (significant)	Medium to Low (C) Medium to High (Co)	Moderate (C) significant Moderate to Moderate – Substantial (Co) significant
27	Cemetery eastern edge of Maesteg	Medium	Medium to High	Moderate to substantial (significant)	-	-
28	Llangynwyd	Medium to high	Medium	Moderate to moderate substantial (significant)	-	-
36	Mouth of the River Neath	Medium	-	-	Medium to high (C/Co)	Moderate to moderate-

substantial  
(C/Co)

## Potential Effects on Statutory and Non-Statutory Designations

### Statutory Designations

#### Registered Historic Parks and Gardens

##### Margam Park

##### Value

8.7.350 This Grade I Park is considered to be of high scenic and historic value, with a distinct sense of place, reinforced by extensive views and visitor attractions. The landscape value is considered to be outstanding to high.

##### Susceptibility

8.7.351 This is a high quality, multi-layered landscape of outstanding historical interest and a significant tourist attraction, functioning as a Country Park. The landscape comprises well-wooded and treed areas with open grazed land and a distinctive mix of elements including lakes, historic buildings and parkland that contribute to the character. The scarp slope encloses the lower-lying areas to the south, although there are a variety of views throughout the park, includes long views over the coastal plain to the south from the scarp. Key visible man-made elements include the extensive industrial development on the coastal plain, including the steel works. The M4 motorway (together with background noise) and operational wind turbines at Newlands Farm, Stormy Down, Newton Down and Mynydd Brombil are also defining characteristic. Overall, the susceptibility of this designation to change is considered to be high.

##### Sensitivity

8.7.352 The designation is recognised as a regional and national level and contains landscape characteristics, including historic features, that may have a high sensitivity to wind farm development of the scale proposed. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be high.

##### Magnitude of Impact

8.7.353 The Park boundary is immediately adjacent to the southern boundary of the proposed development and at a distance of approximately 1.7 km to the nearest turbine. Impacts on landscape character will be indirect and visibility of the proposed development within the wider landscape will be variable throughout the Park. The bare-earth model ZTV (refer to Figure 8.1) indicates that due to the screening effects of topography there will be no locations where all 18 turbines will be visible. There is however a small extent of land within the north-east section of the essential setting of the park, where there is an enclosure where all 18 turbines in theory will be visible. However, existing coniferous productive forestry that currently surrounds it is predicted to screen views and key views from the essential setting, south across the park and surrounding landscape will remain unaffected.

8.7.354 Above the scarp slope on the rolling upland plateau to the north and east the landscape is expansive, visually open and simple, comprising a matrix of coniferous forestry, some recently felled, and upland pasture. From these elevated areas, there will predominantly be between nine to 13 turbines theoretically visible. Typical views from this location are illustrated by *VP8 Margam Park (Deer Park)*. This viewpoint indicates that from this area of the park, the turbines within the southern section of the site will form a large-scale feature within the landscape, however it will occupy only a small proportion of the available view. In addition, and as noted within The Register of Parks and Gardens of Special Historic Interest in Wales<sup>5</sup> significant views from this area of the park are south across the adjacent low land landscape rather than to the north. To the south of the Brest Plantations and

extending further into the lower elevated parts of the Deer Park, the ZTV (refer to Figure 8.1) indicates an extensive area of land where there will be no visibility of the proposed development. On and below the wooded scarp slopes, the landscape is visually enclosed and there will be no visibility of the proposed development. The Brest Plantation will remain a distinctive feature on the scarp slope. Further to the south-west, beyond the visual enclosure provided by the wooded scarp slope, views of the proposed development will be a potentially influencing, although an indirect feature within the landscape. Within these lower lying areas of the park, including the grass area to the south of Margam Castle it is predicted that 10 turbines of the southern section may theoretically be visible. From this area of the park, the proposed development may form an immediately apparent feature of views. However, as indicated by *VP17 Margam Park*, visibility of the proposed development will be restricted not only by topography but also by existing vegetation to Mynydd Margam. As from views within the Deer Park, significant historic views are considered to be south from the castle, as opposed north and towards it and the ridgeline beyond. On balance, the magnitude of impact is evaluated as medium to high.

##### Significance of Effects

8.7.355 The magnitude of impacts will be medium to high and combined with the high sensitivity, the significance of effects will be moderate-substantial (significant).

### Non-Statutory Designations

#### Special Landscape Areas (SLA's)

##### Margam

##### Value

8.7.356 Margam SLA is extensive in terms of its area and encompasses the southern section of the proposed development. This contains Margam Park, an area of noted high scenic and historic value, with a distinct sense of place, reinforced by extensive views and visitor attractions. To the west of Margam Park, the scarp slope provides a strong backcloth to the coastal and is again of higher value. Elsewhere within the SLA, more to the north, upland areas are characterised by productive forestry and more open plateaux. Although the forestry provides a sense of tranquillity and isolation, the landscape is considered to be of more moderate scenic quality and value. Overall the value of the SLA is considered to be medium to high.

##### Susceptibility

8.7.357 Margam Park is a landscape within the SLA that comprises well-wooded and treed areas with open grazed land and a distinctive mix of elements including lakes, historic buildings and parkland that contribute to the character. Elsewhere the scarp slope to the south-west is a locally important landscape feature, with vast panoramic views, which forms a key backcloth to the coastal plain and the wider seascape. These areas of the SLA have a higher susceptibility to development proposed. To the north, the upland plateaux are large in scale, with a simple pattern that is dominated by coniferous productive forestry. These areas are considered more able to accommodate some degree of change from the type of development proposed, without changing the overall character. The susceptibility of the SLA to change, on balance, is considered to be medium.

##### Sensitivity

8.7.358 The value of this designation is assessed as medium to high and the susceptibility is medium. The sensitivity of this SLA is considered to be medium.

##### Magnitude of Impact

Within Margam Park to the south, impacts will be indirect and variable due to the screening effects of topography and there will be few locations where all 18 turbines will be experienced. Parkland areas are well-vegetated with trees and woodland and they generally possess a south-facing aspect towards the coastal plain. On and

<sup>5</sup> Cadw/ICOMMOS UK (2000) The Register of Parks and Gardens of Special Historic Interest in Wales (Part I: Parks and Gardens) page 102



immediately below the wooded scarp slopes extending along the western edge of the SLA, the landscape is visually enclosed and there will be no visibility of the proposed development. Beyond the scarp on lower lying farmland more to the south of the SLA, the landscape has a visual relationship with the elevated land to the north. Within these areas there may be some indirect impacts on the character of the designation through the increased influence of wind farm development. From elevated areas of the SLA to the north, the landscape is expansive, visually open and simple, comprising a matrix of coniferous forestry, some recently felled, and upland pasture. Operational wind farm development is notable within this expansive landscape at Mynydd Brombil. Direct impacts will occur within this upland area from the introduction of the proposed turbines into the landscape, together with selective felling of trees in order to accommodate the turbines and associated infrastructure. In this area, the proposed development will result in a large-scale alteration to the existing character of the designation, as wind turbines will be a major and defining new feature. However, large tracts of forestry will be retained, subject to future and replanting programme for this productive forest. Therefore, it is predicted there will not be a complete change in character across this part of the SLA as coniferous forestry will remain as a key defining feature, albeit together with wind turbine development. Magnitude of impacts across this designation will be variable from low where the proposed development will have limited influence through to very high where the SLA extends into the proposed development site and impacts will be direct. On balance, overall, the magnitude of impact across the SLA is assessed as medium to high.

#### *Significance of Effect*

- 8.7.359 The magnitude of impacts will be medium to high overall and combined with the medium sensitivity, the significance of effects will be moderate-substantial and significant.

#### *Magnitude of Cumulative Impacts (consented wind farms)*

- 8.7.360 The consented wind farm of Foel Trawsnant is located to the north of the SLA, where the addition of the proposed development within the SLA will extend wind farm development further south across Mynydd Margam. Foel Trawsnant will be partially experienced beyond the high point of Mynydd Penhydd to the north in addition to the northern section of the proposed development. Any disparity in scale between the two developments will be mitigated by the forested landform to a degree. Due to separation distance, the turbines of the southern section are likely to have a stronger relationship with the existing turbines to Mynydd Brombil Wind Farm, rather than the consented development of Foel Trawsnant. The consented wind farm of Melin Court is located approximately 7.0 km to the north of the SLA and will have little influence on the character of the SLA. The magnitude of cumulative impacts is considered to be medium to high.

#### *Significance of Cumulative Effects (consented wind farms)*

- 8.7.361 The sensitivity of the designation is considered to be medium, and the magnitude of cumulative impacts are considered to be medium to high for the SLA. Significance of effects are predicted to be moderate – substantial (significant).

#### *Magnitude of Cumulative Impacts (scoping stage wind farms)*

- 8.7.362 The proposed development will be experienced with the scoping stage development of Fforch Dwm to the north-west, together with the operational developments of Pen y Cymoedd and Ffynnon Oer. The proposed development and scoping stage development will extend the influence of wind farms south into the SLA. The coniferous forestry on the expansive upland plateau will remain as a key defining feature, albeit together with wind turbine development. However, there will be a partial alteration of the character. The magnitude of cumulative impacts is considered to be medium to high.

#### *Significance of Cumulative Effects (scoping stage wind farms)*

- 8.7.363 The sensitivity of the designation is considered to be medium, and the magnitude of cumulative impacts are considered to be medium to high for the SLA. Significance of effects are predicted to be moderate – substantial (significant).

#### *Magnitude of Cumulative Impacts (In combination with all cumulative wind farms)*

- 8.7.364 From within the SLA, the proposed development will be experienced in combination with operational cumulative developments to the north, including Pen y Cymoedd and Ffynnon Oer and to the west at Mynydd Brombil, together with the consented cumulative developments of Foel Trawsnant and Melin Court beyond the high point of Mynydd Penhydd to the north. There will however be limited interaction with the consented wind farms of Upper Ogmere and Nant y Gwyddon Landfill due to intervening topography, vegetation and distance. Also, to the north west, the scoping stage development of Fforch Dwm will be experienced. The existing character of the SLA is indirectly defined by wind farm development, particularly to the north. The proposed development will extend this characteristic south. These areas are currently defined by coniferous forestry to an expansive upland plateau and this will remain as a key defining feature, albeit together with wind turbine development. However, there will be a partial alteration of the character. However, there will be no cumulative impacts within Margam Park, that is included within the SLA. The magnitude of cumulative impacts is considered to be medium to high.

#### *Significance of Cumulative Effects (In combination with all cumulative wind farms)*

- 8.7.365 The magnitude of impacts will be medium to high overall and combined with the medium sensitivity, the significance of effects will be moderate-substantial and significant.

#### *Western Uplands*

##### *Value*

- 8.7.366 This SLA comprises a series of north eastern facing slopes, typically rough grazing with some plantations and small woodlands that contribute to the overall character and quality of the area. Despite the presence of coal measures and other stone quarrying, the area retains a largely rural, agricultural character. Important historic and cultural associations reflected in landscape archaeology includes the settlement of Llangynwyd and its hinterland largely important; despite its proximity of industrial towns, it retains a distinct sense of place and a high scenic quality. The value is assessed as medium to high.

##### *Susceptibility*

- 8.7.367 This is a large scale, open, upland landscape, consisting of pastoral fields, rough grazing with coniferous productive woodland, most notably on the higher ground. The area has an aspect generally towards the north-east and is contained by the dissected relief and extensive productive forestry and other woodland. It is remote with scattered dwellings farmsteads and the village of Llangynwyd. The susceptibility of landscape receptors to change is considered to be medium.

##### *Sensitivity*

- 8.7.368 The value of this designation is assessed as medium to high and the susceptibility is medium. The sensitivity of this SLA is considered to be medium-high.

##### *Magnitude of Impact*

- 8.7.369 There will be indirect impacts that will be generally more extensive and of greater magnitude on the higher ridges and plateau areas broadly within the west of the SLA. There may be a greater perceptual influence from wind turbines, however the proposed development will be proportional in scale to the simple, large scale, upland landscape. Perception of turbines will be more fragmented on the slopes and dissected valleys to the east and impacts will be generally reduced in these areas. These areas have a strong aspect to the north-east and panoramic views will be available across the Llynfi Valley. This characteristic will be unaffected. To the south of the SLA the landscape slopes to the south and there is no visibility. To the north of the SLA the valley side is steep and east facing and visibility towards the proposed development is reduced. On balance, impacts are considered to be medium.

*Significance of Effect*

8.7.370 The designation is considered to be medium-high sensitivity and the magnitude of impact is medium. Significance of effects on the designation is predicted to be moderate. Effects are considered to be significant as there will be an apparent increase in the direct and indirect influence of wind farm development on the character of this SLA.

*Magnitude of Cumulative Impacts (consented wind farms)*

8.7.371 The wind farm of Foel Trawsnant, will have a slight indirect influence on landscape character within the SLA. It will be experienced as a distinct cluster to the north and may marginally increase the influence of wind farm developments. The wind farm of Upper Ogmored may also have an indirect impact on the LCA, although the turbines to this development will be largely subsumed within the turbines of the operational wind farms of Llynfi Afan REP and also Pen y Cymoedd. The addition of the proposed development to the consented development may lead to some intensification of wind farm development and extend the arc of wind turbines to areas to the west of the designation. Any changes to the character of the SLA will largely be due to the introduction of the proposed development, which will increase the influence of wind farm developments further to the south. The magnitude of cumulative impacts is considered to be medium.

*Significance of Cumulative Effects (consented wind farms)*

8.7.372 The designation is considered to be medium-high sensitivity and the magnitude of impact is medium. Significance of effects are predicted to be moderate. Effects are considered to be significant as there will be an apparent increase in the cumulative influence of wind farm development on the character of this SLA.

*Magnitude of Cumulative Impacts (In combination with all cumulative wind farms)*

8.7.373 Within this SLA, operational development extends across upland skylines broadly to the north and west, including Pen y Cymoedd, Llynfi Afan REP and Taff Ely although vegetation and landform will reduce impacts locally. Impacts from consented wind farms are likely to be due to the wind farms of Taff Ely Repowering, located in the east and also that of Upper Ogmored. The wind farm of Taff Ely Repowering will largely be subsumed within the turbines of existing wind farm development. The turbines to Upper Ogmored Wind Farm will largely be subsumed within the turbines of the operational wind farms of Llynfi Afan REP and also Pen y Cymoedd. The addition of the proposed development will lead to some intensification of wind farm development and extend the arc of wind turbines to areas to the east. There will be a slight indirect influence from Foel Trawsnant Wind Farm within this SLA. Foel Trawsnant Wind Farm may be experienced as a more distinct cluster and may marginally increase the influence of wind farm developments. The scoping stage development of Fforch Dwm will have some localised impact on southern parts of the SLA, restricted to upland locations where it will be experienced subsumed amongst the operational developments. However, any change to existing character will largely be due to the introduction of the proposed development, which will increase the influence of wind farm development further to the south. The magnitude of cumulative impacts overall is considered to be medium.

*Significance of Cumulative Effects (In combination with all cumulative wind farms)*

8.7.374 The designation is considered to be medium-high sensitivity and the magnitude of impact is medium. Significance of effects are predicted to be moderate. Effects are considered to be significant as there will be an apparent increase in the cumulative influence of wind farm development on the character of this SLA.

**Foel Trawsnant***Value*

8.7.375 This SLA covers the steep, exposed, upland forms part of the eastern highlands complex and is one location within the relict landscape of mixed periods which is not covered in conifer productive forestry. There is (currently) no development, the area feels exposed and access is via foot and bridle paths. The simple landscape features and pattern creates a local sense of place and distinctiveness. The value is considered to be medium.

*Susceptibility*

8.7.376 The SLA comprises a simple, moderate sized, upland landscape that has a sense of bleakness and exposure. It is a landscape of moderate scenic quality and one that is not considered to be rare within the study area. The combination of attributes is considered capable of absorbing some degree of change from the type of development proposed. The susceptibility of this designation to change is considered to be medium.

*Sensitivity*

8.7.377 The value of this designation is assessed as medium and the susceptibility is medium. The sensitivity of this SLA is considered to be medium.

*Magnitude of Cumulative Impacts (consented wind farms)*

8.7.378 The consented wind farm of Foel Trawsnant is located within this SLA. The addition of the proposed development and most notably the turbines to the northern section will result in further intensification of the influence of wind farm development within SLA. The magnitude of cumulative impacts is considered to be high.

*Significance of Cumulative Effects (consented wind farms)*

8.7.379 Within this designation the sensitivity of the landscape is considered to be medium, and the magnitude of cumulative impacts are considered to be high. Significance of cumulative effects on the SLA are predicted to be moderate – substantial (significant).

*Magnitude of Cumulative Impacts (In combination with all cumulative wind farms)*

8.7.380 From the uplands to the north of the proposed development operational cumulative wind farm development will be a key characteristic of these expansive upland landscapes, together with extensive tract of coniferous productive woodland. The consented wind farm of Foel Trawsnant is located within the SLA. The addition of the proposed development and most notably the turbines to the northern section will result in an intensification of and indirectly increase the influence of wind farm development within the designation. The turbines within the southern section, will have less of an influence on the SLA due to separation distance. The consented Melin Court Wind Farm is located approximately 7.0 km to the north of the proposed development, where the turbines to the existing wind farm of Pen y Cymoedd dominate the character of the landscape. Consequently, the turbines of Melin Court Wind Farm, will be subsumed within the existing turbines of Pen y Cymoedd. Therefore, any cumulative impacts within the proposed development within the SLA are likely to be a result of the existing Pen y Cymoedd Wind Farm, rather than the consented Melin Court Wind Farm. However, the consented development of Upper Ogmored will add to the influence of wind farm development, including the operational wind farms of Pen y Cymoedd, Ffynnon Oer and Llynfi Afan REP. Also, to the north west, the scoping stage development of Fforch Dwm will be experienced. The cumulative developments combined with the proposed development may result in a perceived increase in the perception of wind farm development within the SLA. The magnitude of cumulative impacts is considered to be high overall.

*Significance of Cumulative Effects (In combination with all cumulative wind farms)*

8.7.381 Within this designation the sensitivity of the landscape is considered to be medium and the magnitude of cumulative impacts are considered to be high overall. Significance of effects are predicted to be moderate – substantial (significant).

**Foel y Dyffryn***Value*

8.7.382 This SLA comprises relatively small area of distinctive upland landscape to the west of Dyffryn and Caerau, it provides a visual backdrop to the setting of the urban area along the valley floor. Generally north-east facing, the uplands range from 120 m to 350 m AOD. Its upland qualities and character are further reinforced by borrowed views to the Bannau Brycheiniog to the north. Its vegetation cover is typically rough grassland, mainly upland

heath, interspersed with wetland and boggy areas. The proximity to the urban edge of its eastern boundaries introduces visual and sensory detractors. The value is assessed as medium.

#### *Susceptibility*

- 8.7.383 A large scale, open, upland landscape, consisting of pastoral fields, rough grazing with coniferous productive woodland forestry, most notably on the higher ground. The area has an aspect generally towards the north-east and is contained by the dissected relief. Some indirect influence from the operational wind farms of Pen y Cymoedd and Ffynnon Oer is evident together with the consented Foel Trawsnant wind farm. The susceptibility of landscape receptors to change is considered to be medium.

#### *Sensitivity*

- 8.7.384 The value of this designation is assessed as medium and the susceptibility is medium. The sensitivity of this SLA is considered to be medium.

#### *Magnitude of Cumulative Impacts (consented wind farms)*

- 8.7.385 The wind farm of Foel Trawsnant, will have a pronounced influence on landscape character within this SLA, which is located within proximity to the proposed development. It will be experienced as a more distinct cluster and may marginally increase the influence of wind farm developments. The wind farm of Upper Ogmored may also have an indirect impact on the SLA, although the turbines to this development will largely be subsumed within the turbines of the operational wind farms of Llynfi Afan REP and also Pen y Cymoedd. The addition of this proposed development may lead to some intensification of wind farm development and extend the arc of wind turbines to areas to the east within this designation. However, there is no direct interaction between the proposed development and this consented wind farm. Any changes to existing character will largely be due to the introduction of the proposed development, which will increase the influence of wind farm developments further to the south. The magnitude of cumulative impacts is considered to be medium to high.

#### *Significance of Cumulative Effects (consented wind farms)*

- 8.7.386 The sensitivity of the designation is predicted to be medium to high and a magnitude of cumulative effects of medium to high. Significance of cumulative effects is predicted to be moderate – substantial (significant).

#### *Magnitude of Cumulative Impacts (In combination with all cumulative wind farms)*

- 8.7.387 Within this SLA, operational development extends across upland skylines broadly to the north and west, including Pen y Cymoedd, Llynfi Afan REP and Taff Ely although vegetation and landform will reduce impacts locally. Impacts from consented wind farms are likely to be due to the wind farms of Taff Ely Repowering, located in the east and also that of Upper Ogmored. The wind farm of Taff Ely Repowering will largely be subsumed within the turbines of existing wind farm development. The turbines to Upper Ogmored Wind Farm will largely be subsumed within the turbines of the operational wind farms of Llynfi Afan REP and also Pen y Cymoedd. The addition of the proposed development will lead to some intensification of wind farm development and extend the arc of wind turbines to areas to the east. There will be an indirect influence from the turbines of the adjacent Foel Trawsnant Wind Farm within this SLA. Foel Trawsnant Wind Farm, will be experienced as a more distinct cluster that will increase the influence of wind farm developments. The scoping stage development of Fforch Dwm will have some localised impact from western fringes of the SLA, restricted to upland locations, where it will be experienced subsumed amongst the operational developments. Changes to existing character will largely be due to the wind farm of Foel Trawsnant and also the introduction of the proposed development, which will increase the influence of wind farm development further to the south. The magnitude of cumulative impacts overall is considered to be medium.

#### *Significance of Cumulative Effects (In combination with all cumulative wind farms)*

- 8.7.388 Within this designation, the sensitivity is medium to high and the magnitude of cumulative impacts is considered to be medium to high. Significance of cumulative effects is predicted to be moderate-substantial (significant).

## **Country Parks**

### **Margam Park**

#### *Value*

- 8.7.389 This Country Park is also a Grade I Registered Historic Park and Garden and is considered to be of high scenic and historic value, with a distinct sense of place, reinforced by extensive views and visitor attractions. The landscape value is considered to be outstanding to high.

#### *Susceptibility*

- 8.7.390 This is a high quality, multi-layered landscape of outstanding historical interest and a significant tourist attraction, functioning as a Country Park. The landscape comprises well-wooded and treed areas with open grazed land and a distinctive mix of elements including lakes, historic buildings and parkland that contribute to the character. The scarp slope encloses the lower-lying areas to the south, although there are a variety of views throughout the park, includes long views over the coastal plain to the south from the scarp. Key visible man-made elements include the extensive industrial development on the coastal plain, including the steel works. The M4 motorway (together with background noise) and operational wind turbines at Newlands Farm, Stormy Down, Newton Down and Mynydd Brombil are also defining characteristic. Overall, the susceptibility of this designation to change is considered to be high.

#### *Sensitivity*

- 8.7.391 The designation is recognised as a regional and national level and contains landscape characteristics, including historic features, that may have a high sensitivity to wind farm development of the scale proposed. The combination of susceptibility of receptors to change and landscape value indicates that on balance, landscape sensitivity will be high.

#### *Magnitude of Impact*

- 8.7.392 The boundary of Margam Country Park broadly follows the same boundary as the land designated as a Registered Historic Park and Garden and therefore effects on visual amenity and landscape character will be the same as described above in the assessment of effects on Registered Historic Parks and Gardens. The magnitude of impact is evaluated as medium to high.

#### *Significance of Effects*

- 8.7.393 The magnitude of impacts will be medium to high and combined with the high sensitivity, the significance of effects will be moderate-substantial (significant).

## **Landscapes of Special Historic Interest in Wales (LOSHIW)**

### **Margam Mountain**

#### *Value*

- 8.7.394 Margam Mountain LOSHIW extends through Margam Park and the upland forested plateaux to the east, encompassing the southern section of the proposed development. The most prominent historical features are within Margam Park, including the remains of Margam Abbey, plus the Tudor Gothic mansion of Margam Castle and the Orangery. The setting to the LOSHIW is an area of noted high scenic value with a distinct sense of place, reinforced by extensive views and visitor attractions. Overall, the value of the LOSHIW is considered to be medium to high.

*Susceptibility*

- 8.7.395 The landscape of the LOSHIW comprises well-wooded and treed areas within Margam Park, with open grazed land and a distinctive mix of elements that contribute to the setting for the concentration of historic features in this area. These areas of the designation have a higher susceptibility to the development proposed. To the north, the upland plateaux are large in scale, with a simple pattern that is dominated by coniferous productive forestry. These areas are considered more able to accommodate some degree of change from the type of development proposed. The susceptibility of the designation to change, on balance, is considered to be medium.

*Sensitivity*

- 8.7.396 The value of this designation is assessed as medium to high and the susceptibility is medium. The sensitivity of this SLA is considered to be medium.

*Magnitude of Impact*

- 8.7.397 Within Margam Park to the south, impacts will be indirect and variable due to the screening effects of topography and there will be no locations where all 18 turbines will be experienced. Parkland areas are well-vegetated with trees and woodland and they generally possess a south-facing aspect towards the coastal plain. On and immediately below the wooded scarp slopes extending along the western edge of the LOSHIW, the landscape is visually enclosed and there will be no visibility of the proposed development. From elevated areas of the designation to the north, the landscape is expansive, visually open and simple, comprising a matrix of coniferous forestry, some recently felled, and upland pasture. Operational wind farm development is notable within this expansive landscape at Mynydd Brombil.

- 8.7.398 Sections of this productive forestry will be felled to accommodate the proposed development that will have a direct impact on land within designation. However, the proposed turbines and associated infrastructure will not impact directly upon the historic features within it. In this area, the proposed development will result in a large-scale alteration to the wider existing character of the designation, as wind turbines will be a major and defining new feature. However, large tracts of forestry will be retained, subject to future and replanting programme for this productive forest. Therefore, it is predicted there will not be a complete change in character across this part of the LOSHIW as coniferous forestry will remain as a key defining feature, albeit together with wind turbine development. Magnitude of impacts across this designation will be variable from low where the proposed development will have limited influence through to very high where the LOSHIW extends into the proposed development site and impacts will be direct. On balance, overall, the magnitude of impact across the designation is assessed as medium.

*Significance of Effect*

- 8.7.399 The magnitude of impacts will be medium overall and combined with the medium sensitivity, the significance of effects will be moderate. Effects are considered to be significant as there will be a partial change to the characteristics of this designated landscape.

*Magnitude of Cumulative Impacts (consented wind farms)*

- 8.7.400 The consented wind farm of Foel Trawsnant is located to the north of the LOSHIW where the addition of the proposed development within the LOSHIW will extend wind farm development further south across Mynydd Margam. Foel Trawsnant will be partially experienced beyond the high point of Mynydd Penhydd to the north in addition to the northern section of the proposed development. Any disparity in scale between the two developments will be mitigated by the forested landform to a degree. Due to separation distance, the turbines of the southern section are likely to have a stronger relationship with the existing turbines to Mynydd Brombil Wind Farm, rather than the consented development of Foel Trawsnant. The consented wind farm of Melin Court is located approximately 7.0 km to the north of the LOSHIW and will have little influence on the character of the LOSHIW. The magnitude of cumulative impacts is considered to be medium to high.

*Significance of Cumulative Effects (consented wind farms)*

- 8.7.401 The sensitivity of the designation is considered to be medium, and the magnitude of cumulative impacts are considered to be medium to high for the LOSHIW. Significance of effects are predicted to be moderate – substantial (significant).

*Magnitude of Cumulative Impacts (scoping stage wind farms)*

- 8.7.402 The proposed development will be experienced with the scoping stage development of Fforch Dwm to the north-west, together with the operational developments of Pen y Cymoedd and Ffynnon Oer. The proposed development and scoping stage development will extend the influence of wind farms south into the LOSHIW. The coniferous forestry on the expansive upland plateau will remain as a key defining feature, albeit together with wind turbine development. However, there will be a partial alteration of the character. The magnitude of cumulative impacts is considered to be medium to high.

*Significance of Cumulative Effects (scoping stage wind farms)*

- 8.7.403 The sensitivity of the designation is considered to be medium, and the magnitude of cumulative impacts are considered to be medium to high for the LOSHIW. Significance of effects are predicted to be moderate – substantial (significant).

*Magnitude of Cumulative Impacts (In combination with all cumulative wind farms)*

- 8.7.404 From within the LOSHIW, the proposed development will be experienced in combination with operational cumulative developments to the north, including Pen y Cymoedd and Ffynnon Oer and to the west at Mynydd Brombil, together with the consented cumulative developments of Foel Trawsnant and Melin Court beyond the high point of Mynydd Penhydd to the north. There will however be limited interaction with the consented wind farms of Upper Ogmored and Nant y Gwyddon Landfill due to intervening topography, vegetation and distance. Also to the north west, the scoping stage development of Fforch Dwm will be experienced. The existing character of the LOSHIW is indirectly defined by wind farm development, particularly to the north. The proposed development will extend this characteristic south. These areas are currently defined by coniferous forestry to an expansive upland plateau and this will remain as a key defining feature, albeit together with wind turbine development. However, there will be a partial alteration of the character. There will be no cumulative impacts within Margam Park, that is included within the LOSHIW. The magnitude of cumulative impacts is considered to be medium to high.

*Significance of Cumulative Effects (In combination with all cumulative wind farms)*

- 8.7.405 The magnitude of impacts will be medium to high overall and combined with the medium sensitivity, the significance of effects will be moderate-substantial and significant.

**Potential Effects on Circulation, Movement and Access***National Trails/Long Distance Footpaths*

- 8.7.406 St Illtyd's Walk currently extends north from Margam through the proposed development. The turbines will be immediately apparent at close range. Existing operational wind farm developments of Mynydd Brombil and Llynfi Afan REP will be viewed obliquely from upland sections, and the route passes directly through the consented Foel Trawsnant scheme, with six turbines situated more or less on top of the walk. Therefore, a diversion of the footpath/bridleway will be required to accommodate the turbines. To the north of the proposed development the route will extend through Pen y Cymoedd and Ffynnon Oer, both operational wind farms. Users of sections of the Ogwr Ridgeway to the west will also receive similar impacts as the route approaches the proposed development. These will reduce with distance to the east.
- 8.7.407 From sections of the path to the south, as illustrated by *Viewpoint 8 Margam Park (Deer Park)*, there are views across the coastal plain and other existing operational developments visible will include Hillhouse, Ford Motor

Company, Haregrove Farm, Newton Down, Parc Stormy Down, Newlands Farm and Queens Dock. Mynydd Brombil Wind Farm, visible above the scarp slope to the north-west. Sections of the route heading north through the southern section of the proposed development are well forested and enclosed by landform and visibility is constrained. As the route rises over Mynydd Penhydd and Foel Trawsant, visibility will extend to other operational schemes to the north and east, including operational developments at Pen y Cymoedd, Llynfi Afan REP, Ffynnon Oer. The magnitude of impacts on these routes will range from negligible, to very high for stretches near and within the proposed development and combined with medium to high sensitivity, the significance of effects will range from slight to very substantial. Effects will be significant from locations immediately adjacent and within the site boundary, and not significant as receptors move further away from the proposed development.

8.7.408 Ogwr Ridgeway Walk extends east to west across South-west Wales and links the Taff-Ely Ridgeway Walk (Ffordd y Bryniau) with the Coed Morgannwg Way. It largely follows the tops of the southern Lower Pennant Sandstone ridge from Mynydd y Gaer and Bryn y Wrach, to Mynydd Baeden and Nynydd Margam, taking in the valleys of the Ogwr Fawr and Fach, Garw and Llynfi. The western section of the route within the detailed study area follows the alignment of St Illtyds Way between Margam and Rhyd Blaen-y-Cwm and effects for this section are as described above.

8.7.409 The ZTV indicates there will be more open visibility from upland ridges, diminishing as the route drops into lower lying areas. As indicated by *Viewpoint 26 – Ogwr Ridgeway Walk*, near Y Bwlwarcaw, the proposed development will be viewed at close distance to the site boundary, although it will be seen within a simple, large scale, upland landscape that already contains extensive widespread operational wind farm development. The proposed turbines would be viewed as an immediately apparent, large-scale feature that will result in an increase in the prominence of wind turbines within the view. Views to the proposed development will be confined to elevated sections of the route only, as it passes over ridges and will diminish as the route extends to the east and away from the proposed development. The magnitude of impacts on this route will range from negligible, to high for stretches within close proximity of proposed development and combined with medium to high sensitivity, the significance of effects will range from negligible to substantial to moderate - substantial. Effects will be significant from locations immediately adjacent to the site boundary, and not significant as receptors move further away from the proposed development.

## 8.8 CUMULATIVE ASSESSMENT – NON-WIND FARM DEVELOPMENTS

8.8.1 Table A8.7.1 in Appendix 8.13 lists all Nationally Significant Infrastructure Projects (NSIP), Developments of National Significance (DNS) and Major Projects within the 45 km study area. The location of each development is illustrated in Figures 8.86 and 8.87. Developments that fall outside of the ZTV, or where there is no publicly available data for the project, have been excluded from further assessment. The remaining developments were then assessed, and professional judgement applied to identify all non-wind farm developments where significant cumulative effects may occur. Significant cumulative effects are described in the following paragraphs below. Non-significant cumulative effects are described in Appendix 8.13.

### *Assessment of Cumulative Effects (in addition with consented non-wind farm developments)*

8.8.2 The preliminary assessment of cumulative effects on landscape character and visual amenity from non-wind farm developments identified that there is the potential for significant cumulative effects between the proposed development and the consented development of *Afan Valley Adventure Resort*. This development is located approximately 2.67 km north of the proposed development. Significant cumulative effects were identified within the following LCAs, viewpoint locations and landscape designations.

### *Assessment of Cumulative Effects on Landscape Character*

#### *Magnitude of Cumulative Impacts on Landscape Character (LCA 13)*

8.8.3 The consented development of *Afan Valley Adventure Resort* is located around 0.5 km to the north of LCA 13 and will be experienced indirectly in combination with the consented wind farm of Foel Trawsant that is located within LCA 13. The addition of the proposed development and most notably the turbines to the northern section will result in further indirect intensification of development within LCA 13. The magnitude of cumulative impacts is considered to be high for LCA 13.

#### *Significance of Cumulative Effects on Landscape Character (LCA 13)*

8.8.4 Within this LCA the sensitivity of the landscape is considered to be medium, and the magnitude of cumulative impacts are considered to be high. Significance of effects on cumulative landscape character is predicted to be moderate – substantial (significant) for LCA 13.

#### *Magnitude of Cumulative Impacts on Landscape Character (LCA 42)*

8.8.5 The consented development of *Afan Valley Adventure Resort* is located adjacent to the northern boundary of this LCA and there may be some indirect influence locally on the character. This will marginally add to the pronounced influence from the consented wind farm of Foel Trawsant. The proposed development will add indirectly to these consented developments, extending the influence from the arc of wind turbines and other consented development to areas to the east of the LCA. However, there is no direct interaction between the proposed development and the consented developments to the north. Any changes to existing character will largely be due to the introduction of the proposed development, which will increase the influence of wind farm developments further to the south. The magnitude of cumulative impacts is considered to be medium to high.

#### *Significance of Cumulative Effects on Landscape Character (LCA 42)*

8.8.6 The sensitivity of the landscape is predicted to be medium to high and a magnitude of cumulative effects of medium to high. Significance of cumulative effects on landscape character is predicted to be moderate – substantial (significant)

### *Assessment of Cumulative Effects (in addition with scoping stage non-wind farm developments)*

### *Assessment of Cumulative Effects on Visual Amenity*

#### *Viewpoint 8: Margam Park (Deer Park)*

#### *Magnitude of Visual Cumulative Impacts (non-wind farm development)*

8.8.7 To the north east the solar arrays within western areas of the scoping stage development of *Eirlys Solar Farm* are predicted to be visible at close distance (around 620 m to 800 m). However, the majority of the solar arrays are predicted to be obscured by topography. At a distance of 2.33 km to the nearest turbine, the proposed development will be viewed at close distance and would form a large-scale feature. However, the coniferous forestry that extends across the south extent of Mynydd Margam will form a visual buffer between the two. Whilst there will be a notable change in views to the north from the proposed development, the cumulative effect will be to extend development east along the skyline. However, the key features that define this view are all to the south and will be retained, including the panoramic views across the coastal. Views are likely to be moderate to short in duration as walkers travel along the footpath. The magnitude of impacts is predicted to be medium to high.

#### *Significance of Cumulative Visual Effects (non-wind farm development)*

8.8.8 The sensitivity of receptors is considered to be high, and the magnitude of impacts is predicted to be medium to high and therefore the significance of effects on visual amenity are predicted to be moderate-substantial (significant).

**Viewpoint 19: Wales Coast Path, Rest Bay / Royal Porthcawl Golf Club, Porthcawl***Magnitude of Visual Impacts (non-wind farm development)*

- 8.8.9 Within views to the north, the solar arrays within central and southern sections of the scoping stage development of *Eirlys Solar Farm* are predicted to be visible at medium distance. They will be seen extending along the skyline and the facing scarp slope infilling areas of open grassland between forestry blocks. To the rear of the solar farm, proposed turbines will form a recognisable new feature within the views north. The vertical nature of the turbines as well as the movement of the turbine blades will contrast with the static, low level characteristics of the solar farm although there will be an increased sense of development within the views. The magnitude of cumulative impacts is predicted to be medium.

*Significance of Visual Effects (non-wind farm development)*

- 8.8.10 The sensitivity of receptors is considered to be medium to high, and the magnitude of cumulative impacts is predicted to be medium and therefore the significance of cumulative effects on visual amenity are predicted to be moderate. On balance, effects are considered to be significant, as the proposed and scoping stage developments would be visually notable features to the extent that they would change the appearance of views north.

**Viewpoint 24: Wales Coast Path, Kenfig Burrows***Magnitude of Visual Impacts (non-wind farm development)*

- 8.8.11 Within views to the north, the solar arrays within central and southern sections of the scoping stage development of *Eirlys Solar Farm* are predicted to be visible at medium distance. They will be seen extending along the skyline and the facing scarp slope infilling areas of open grassland between forestry blocks. To the rear of the solar farm, proposed turbines will form an apparent large-scale feature visible along the ridgeline. The vertical nature of the turbines as well as the movement of the turbine blades will contrast with the static, low level characteristics of the solar farm although there will be an increased sense of development within the views. The magnitude of cumulative impacts is predicted to be medium to high.

*Significance of Visual Effects (non-wind farm development)*

- 8.8.12 The sensitivity of receptors is considered to be high, and the magnitude of cumulative impacts is predicted to be medium to high and therefore the significance of cumulative effects on visual amenity are predicted to be moderate - substantial (significant).

**Assessment of Cumulative Effects on Statutory Landscape Designations****Margam Park Registered Park and Garden of Special Historic Interest***Magnitude of Cumulative Impact (non-wind farm development)*

- 8.8.13 Above the scarp slope on the rolling upland plateau to the north and east the landscape is expansive, visually open and simple, comprising a matrix of coniferous forestry, some recently felled, and upland pasture. To the north east the solar arrays within western areas of the scoping stage development of *Eirlys Solar Farm* are predicted to be visible at close distance. However, the majority of the solar arrays are predicted to be obscured by topography. More to the north, the turbines within the southern section of the proposed development will form a large-scale feature within the landscape, however they will occupy only a small proportion of the available view. In addition, and as noted within The Register of Parks and Gardens of Special Historic Interest in Wales significant views from this area of the park are south across the adjacent low land landscape rather than to the north. On and below the wooded scarp slopes, the landscape is visually enclosed and there will be no cumulative visibility of the scoping stage development or the proposed development. The Brest Plantation will remain a distinctive feature on the scarp slope. Further to the south-west, beyond the visual enclosure provided by the wooded scarp slope, views of the proposed development will be a potentially influencing, although an indirect feature within the landscape although the scoping stage development of *Eirlys Solar Farm* will be largely obscured by topography and

vegetation. From this area of the park, the proposed development may form an immediately apparent feature of views. However, as indicated by *VP17 Margam Park*, visibility of the proposed development will be restricted not only by topography but also by existing vegetation to Mynydd Margam. As from views within the Deer Park, significant historic views are considered to be south from the castle, as opposed north and towards it and the ridgeline beyond. On balance, the magnitude of cumulative impact is evaluated as medium to high.

*Significance of Cumulative Effects (non-wind farm development)*

- 8.8.14 The magnitude of cumulative impacts will be medium to high and combined with the high sensitivity, the significance of effects will be moderate-substantial (significant).

**Cumulative Effects on Non-Statutory Landscape Designations****Margam Mountain LOSHI***Magnitude of Cumulative Impact (non-wind farm development)*

- 8.8.15 Within Margam Park to the south, impacts will be indirect and variable due to the screening effects of topography. Parkland areas are well-vegetated with trees and woodland and they generally possess a south-facing aspect towards the coastal plain. On and immediately below the wooded scarp slopes extending along the western edge of the LOSHIW, the landscape is visually enclosed and there will be no visibility of the proposed development or *Eirlys Solar Farm*. From elevated areas of the designation to the north, the landscape is expansive, visually open and simple, comprising a matrix of coniferous forestry, some recently felled, and upland pasture. Operational wind farm development is notable within this expansive landscape at Mynydd Brombil. Within this south western part of the designation, the solar arrays and associated site infrastructure will have a direct impact on the character of the landscape. In combination with the proposed development there will be a perceived increase in the sense of development. Although development will not impact directly upon the historic features within it the LOSHI. The proposed development together with *Eirlys Solar Farm* will result in a large-scale alteration to the wider existing character of the designation, as both wind and solar development will be a major and defining new feature. However, large tracts of forestry will be retained, subject to future and replanting programme for this productive forest. Therefore, it is predicted there will not be a complete change in character across this part of the LOSHIW as coniferous forestry will remain as a key defining feature, albeit together with wind turbine and solar development. Magnitude of impacts across this designation will be variable from low where the proposed development will have limited influence through to very high where the LOSHIW extends into proposed development sites and where impacts will be direct. On balance, overall, the magnitude of impact across the designation is assessed as medium.

*Significance of Cumulative Effect (non-wind farm development)*

- 8.8.16 The magnitude of impacts will be medium overall and combined with the medium sensitivity, the significance of effects will be moderate. Effects are considered to be significant as there will be a partial change to the characteristics of this designated landscape.

**Margam SLA***Magnitude of Cumulative Impact (non-wind farm development)*

- 8.8.17 Within Margam Park to the south, any cumulative impacts with the proposed development and *Eirlys Solar Farm* will be indirect and variable due to the screening effects of topography and there will be few locations where both developments will be experienced. Parkland areas are well-vegetated with trees and woodland and they generally possess a south-facing aspect towards the coastal plain. On and immediately below the wooded scarp slopes extending along the western edge of the SLA, the landscape is visually enclosed and there will be no visibility of the proposed development and therefore no cumulative impacts. Beyond the scarp on lower lying farmland more to the south of the SLA, the landscape has a visual relationship with the elevated land to the north. Within these areas there may be some indirect impacts on the character of the designation through the increased influence of development. From elevated areas of the SLA to the north, the landscape is expansive, visually open

and simple, comprising a matrix of coniferous forestry, some recently felled, and upland pasture. Direct impacts will occur within this upland area from the introduction of the proposed development together with *the Eirlys Solar Farm* and through selective felling of trees in order to accommodate the turbines and associated infrastructure. Within areas that have direct impacts from development there may be a notable alteration to the existing character of the designation, as particularly wind turbine and also solar arrays will be a major and defining new feature. However, large tracts of forestry will be retained, subject to future and replanting programme for this productive forest. Therefore, it is predicted there will not be a complete change in character across this part of the SLA as coniferous forestry will remain as a key defining feature, albeit together with development. Magnitude of impacts across this designation will be variable from low where development will have limited influence through to very high where the SLA extends into the development sites and impacts will be direct. On balance, overall, the magnitude of cumulative impacts across the SLA is assessed as medium to high.

*Significance of Cumulative Effect (non-wind farm development)*

8.8.18 The magnitude of impacts will be medium to high overall and combined with the medium sensitivity, the significance of cumulative effects will be moderate-substantial and significant.

**Margam Country Park**

*Magnitude of Impact (non-wind farm development)*

8.8.19 The boundary of Margam Country Park broadly follows the same boundary as the land designated as a Registered Historic Park and Garden of Special Historic Interest and therefore effects on visual amenity and landscape character will be the same as described above in the assessment of effects on Registered Historic Parks and Gardens. The magnitude of impact is evaluated as medium to high.

*Significance of Effects (non-wind farm development)*

8.8.20 The magnitude of cumulative impacts will be medium to high and combined with the high sensitivity, the significance of effects will be moderate-substantial (significant).

## 8.9 CONCLUSIONS

8.9.1 The construction effects on landscape character and visual amenity are described in Appendix 8.7: Potential Effects Construction Stage. The assessment identified that there were no significant effects on seascape landscape character or visual amenity during this phase of the work.

8.9.2 Operational effects on seascape and landscape character have been assessed up to study area of 45 km radius from the proposed development. A total of 24 number SCAs, seven of which fall within 15 km of the proposed development were identified. Assessment concluded that there will be no significant individual or cumulative effects on seascape character.

8.9.3 Significant individual effects on landscape character were identified from the following LCAs:

- LCA 03 Margam Country Park;
- LCA 04 Coedhirwaun;
- LCA 06 Mynydd Brombil, Mynydd Emroch and Mynydd Dinas;
- LCA 07 Mynydd Margam;
- LCA 08 Goytre Valley;
- LVA 09 Cefn Cethin;
- LCA 10 Mynydd Bycham;
- LCA 12 Mynydd Penhydd;
- LCA 13 Foel Trawsnant;

- LCA 17 Foel Fynyddau;
- LCA 18 Mynydd Resolven, Craig-y-Llyn and Mynydd Ynyscorrwg;
- LCA 39 Cwmafan;
- LCA 42 Llangynwyd Rolling Uplands and Forestry;
- LCA 43 Llynfi Valley Floor and Lower Slopes;
- LCA 44 Llynfi and Garw Uplands and Forestry;
- LCA 45 Betws Settled Farmland;
- LCA 46 Garw Valley Floor and Lower Slopes; and
- LCA 57 Maesteg.

8.9.4 Significant cumulative effects from wind farm developments on landscape character were also identified from:

- LCA 07 Mynydd Margam;
- LCA 12 Mynydd Penhydd;
- LCA 13 Foel Trawsnant;
- LCA 18 Mynydd Resolven, Craig-y-Llyn and Mynydd Ynyscorrwg;
- LCA 42 Llangynwyd Rolling Uplands and Forestry; and
- LCA 57 Maesteg.

8.9.5 Significant cumulative effects on landscape character from non-wind farm developments were also identified from:

- LCA 13 Foel Trawsnant; and
- LCA 42 Llangynwyd Rolling Uplands and Forestry.

8.9.6 Within the 45 km study area, 37 viewpoints were identified to assess visual amenity. Significant individual effects, as a result of the proposed development, will be predicted at the following:

- VP1 Evans Terrace, Caerau;
- VP2 Maesteg Golf Course;
- VP3 Bryn (Play Area off North Road);
- VP4 Brynna Road, Cwmafan;
- VP8 Margam Park, Deer Park;
- VP10 St. Illtyd's Walk National Trail, near Cynonville;
- VP13 Junction of Heol Gelli Lenor and Brynlywarch, Maesteg;
- VP16 The Princess Margaret Way, Aberavon;
- VP17 Margam Park;
- VP19 Wales Coast Path, Rest Bay/Royal Porthcawl Golf club, Porthcawl;
- VP20 Pen Parcau, Bedwas;
- VP23 Margam Park (Access Road);
- VP24 Wales Coast Path, Kenfig Burrows;
- VP25 Bryn East, Picnic Area Opposite Royal Oak PH;
- VP26 Ogwr Ridgeway Walk Near Y Bwlwarcau Hill Fort;
- VP27 Cemetery Eastern Edge of Maesteg; and

- VP28 Llangynwyd.
- 8.9.7 The 37 viewpoints identified for the assessments were generally selected to reflect areas of higher sensitivity and locations where potential visibility was likely to be greatest. Of these 17 viewpoints where significant effects have been identified, 10 are located within approximately 3 km of the proposed development. At such close distance, effects of this significance are to be anticipated for a development of this type. Significant effects from viewpoints beyond approximately 3 km are all located predominantly within coastal areas. Although effects are considered to be significant, views from all these coastal areas are typically expansive and open and primarily focussed on the open water of the Bristol Channel that is a key visual focus of these views. This relationship will remain, and the proposed development will be seen within this context and seen as a feature within the panoramic views.
- 8.9.8 Significant cumulative effects from wind farm developments on visual amenity were identified at the following viewpoints:
- VP1 Evans Terrace, Caerau;
  - VP2 Maesteg Golf Course;
  - VP4 Brynna Road, Cwmafan;
  - VP8 Margam Park Deer Park;
  - VP10 St Illtyd's Way National Trail, near Cynonville;
  - VP11 Wales Coast Path, Ogmere-by-Sea;
  - VP16 The Princess Margaret Way, Aberavon;;
  - VP20 Pen Parcau, Bettws;
  - VP24 Wales Coast Path, Kenfig Burrows;
  - VP26 Ogwr Ridgeway Walk Near Y Bwlwarcau Hill Fort; and
  - VP36 Mouth of the River Neath.
- 8.9.9 The proposed development will add to the existing cumulative developments, which are broadly located on the open and forested upland plateau, located to the north and east of the study area. Wind farm developments are now an established feature of these open, expansive areas and the proposed development will add to this dynamic wind farm landscape.
- 8.9.10 Significant cumulative effects from non-wind farm developments on visual amenity were identified at the following viewpoints:
- VP8 Margam Park Deer Park;
  - VP19 Wales Coast Path, Rest Bay/Royal Porthcawl Golf club, Porthcawl; and
  - VP24 Wales Coast Path, Kenfig Burrows.
- 8.9.11 Significant effects on statutory designations are predicted within Margam SLA, a Registered Historic Park and Garden. The proposed development may conflict indirectly with some key characteristics, which are key to the designation.
- 8.9.12 Significant effects on non-statutory designations are predicted within:
- Margam SLA, where there will be direct and indirect impacts on the designation. The proposed development may conflict with some key characteristics, which are key to the SLA designation;
  - Western Uplands SLA. There will be an apparent increase in the direct and indirect influence of wind farm development on the character of this SLA;
- Foel Trawsnant SLA. The consented wind farm of Foel Trawsnant is located within this SLA. The addition of the proposed development and most notably the turbines to the northern section will result in further cumulative intensification of the influence of wind farm development within the SLA;
  - Foel y Dyffryn SLA. The addition of the proposed development may lead to some intensification of wind farm development indirectly within this SLA and extend the arc of wind turbines to areas to the east within this designation;
  - Margam Country Park. The proposed development may conflict indirectly with some key characteristics, which are key to the designation; and
  - Margam Mountain LOSHIW. Impacts across this designation will be variable from low where the proposed development will have limited influence through to very high where the LOSHIW extends into the proposed development site and impacts will be direct.
- 8.9.13 There will be significant effects on St. Illtyd's Walk as it passes near to and through the proposed development and Ogwr Ridgeway Walk as it approaches the site. However, effects are limited to some very small sections of the overall trails and any views will be short in duration.
- 8.9.14 There will be no significant effects during the decommissioning phase.