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6. Landscape and Visual Impact Assessment

6.1 Introduction

6.1.1 This chapter presents the assessment of the likely significant effects of the Proposed Development with respect to landscape and visual amenity receptors. It should be read in conjunction with the Project description provided in **Chapter 4: Description of the Proposed Development** and with respect to relevant parts of the following chapters:

- **Chapter 7: Historic Environment**, which assesses the effects of the Proposed Development on heritage assets including the Blaenavon Industrial Landscape World Heritage Site.

6.1.2 This chapter describes:

- the legislation, policy and technical guidance that has informed the assessment (**Section 6.2**);
- consultation and engagement that has been undertaken and how comments from consultees relating to the Landscape and Visual Impact Assessment (LVIA) have been addressed (**Section 6.3**);
- the methods used for baseline data gathering (**Section 6.4**);
- overall baseline (**Section 6.5**);
- embedded measures relevant to landscape and visual amenity (**Section 6.6**);
- the scope of the assessment for landscape and visual amenity (**Section 6.7**);
- the methods used for the assessment (**Section 6.8**);
- the assessment of effects: LANDMAP Aspect Areas (**Section 6.9**);
- the assessment of effects: Brecon Beacons National Park (**Section 6.10**);
- the assessment of effects: local landscape designations (**Section 6.11**);
- the assessment of visual effects (**Section 6.12**);
- assessment of cumulative (inter-project) effects (**Section 6.13**); and
- a summary of the significance conclusions (**Section 6.14**).

6.1.3 A number of appendices accompany this LVIA as follows:

- **Appendix 6A** LVIA Methodology;
- **Appendix 6B** LANDMAP filtering process;
- **Appendix 6C** LANDMAP Geological Landscapes Aspect Areas: Assessment of effects;

- **Appendix 6D** LANDMAP Landscape Habitats Aspect Areas: Assessment of effects;
- **Appendix 6E** LANDMAP Visual and Sensory Aspect Areas: Assessment of effects;
- **Appendix 6F** LANDMAP Historic Landscape Aspect Areas: Assessment of effects;
- **Appendix 6G** LANDMAP Cultural Landscape Services Aspect Areas: Assessment of effects;
- **Appendix 6H** Brecon Beacons National Park LCAs: Assessment of effects;
- **Appendix 6I** Viewpoint Assessment;
- **Appendix 6J** Assessment of effects on night-time views; and
- **Appendix 6K** Residential Visual Amenity Assessment.

6.1.4 These appendices contain the extensive volume of baseline information and detailed assessments with summaries included in **Sections 6.9** and **6.12** in order to present a clear and succinct Draft ES chapter.

6.1.5 The following figures accompany this LVIA:

- **Figure 6.1** Landscape and Visual Study Area;
- **Figure 6.2** Zone of Theoretical Visibility (ZTV) to Blade Tip with Viewpoint Locations;
- **Figure 6.3** Zone of Theoretical Visibility (ZTV) to Hub Height with Viewpoint Locations within the Study Area;
- **Figure 6.4** Wind energy developments included in the Cumulative Landscape and Visual Impact Assessment (CLVIA);
- **Figure 6.5** Landform Plan of the Study Area;
- **Figure 6.6** National Landscape Character Areas with Zone of Theoretical Visibility (ZTV) to Hub Height and Blade Tip within the Study Area;
- **Figure 6.7** LANDMAP: Geological Landscape Aspect Areas filtered into the Study Area with Zone of Theoretical Visibility (ZTV) to Hub and Blade Tip;
- **Figure 6.8** LANDMAP: Landscape Habitats Aspect Areas filtered into the Study Area with Zone of Theoretical Visibility (ZTV) to Hub and Blade Tip;
- **Figure 6.9** LANDMAP: Visual and Sensory Aspect Areas filtered into the Study Area with Zone of Theoretical Visibility (ZTV) to Hub and Blade Tip;
- **Figure 6.10** LANDMAP: Outer Visual and Sensory Aspect Areas filtered into the Study Area with Zone of Theoretical Visibility (ZTV) to Hub and Blade Tip;
- **Figure 6.11** LANDMAP: Historic Landscape Aspect Areas filtered into the Study Area with Zone of Theoretical Visibility (ZTV) to Hub and Blade Tip;
- **Figure 6.12** LANDMAP: Outer Historic Landscape Aspect Areas filtered into the Study Area with Zone of Theoretical Visibility (ZTV) to Hub and Blade Tip;
- **Figure 6.13** LANDMAP: Cultural Landscape Services Aspect Areas filtered into the Study Area with Zone of Theoretical Visibility (ZTV) to Hub and Blade Tip;

- **Figure 6.14** Internationally and nationally designated landscapes with Zone of Theoretical Visibility (ZTV) to Hub Height and Blade Tip within the Study Area;
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- **Figure 6.29a-g** Viewpoint 4: Sirhowy Valley Walk, Manmoel (existing view/wireline, wireline, photomontage, and cumulative wirelines);
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- **Figure 6.31a-g** Viewpoint 6: Pen-y-Fan Pond Country Park (existing view/wireline, wireline, photomontage, and cumulative wirelines);
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- **Figure 6.34a-g** Viewpoint 9: Summit of Mynydd Carn y Cefn (existing view/wireline, wireline, photomontage, and cumulative wirelines);
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- **Figure 6.41a-g** Viewpoint 16: Northern edge of Gelligaer (existing view/wireline, wireline, photomontage, and cumulative wirelines);
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- **Figure 6.47a-f** Viewpoint 22: Pen Cerrig Calch (existing view/wireline, wireline, and cumulative wirelines); and
- **Figure 6.48a-f** Viewpoint 23: Beacons Way at Craig-y-Fan Du (existing view/wireline, wireline, and cumulative wirelines)

Limitations and assumptions

- 6.1.6 The Draft ES has been produced to fulfil the Applicant's consultation duties and enable consultees to develop an informed view of the likely significant effects of the Proposed Development.
- 6.1.7 There are no limitations which affect the robustness of the assessment of the likely significant effects of the Proposed Development.

6.2 Relevant legislation, planning policy and technical guidance

- 6.2.1 This section identifies the legislation, planning policy and technical guidance that has informed the assessment of effects with respect to landscape and visual amenity. Further information on policies relevant to the Project is provided in **Chapter 5: Legislation and policy overview**.

Legislation

6.2.2 A summary of the relevant legislation is given in **Table 6.1**.

Table 6.1 Legislation relevant to the LVIA

Legislation	Legislative context
<i>Wellbeing of Future Generations (Wales) Act 2015</i> ¹	The Act puts in place seven well-being goals to help ensure that public bodies are all working towards the same vision of a sustainable Wales. In relation to landscape matters, the most relevant well-being goal is the achievement of 'a resilient Wales', which seeks to maintain and enhance a biodiverse natural environment. Planning Policy Wales Edition 11 ² recognises that this goal can be supported by protecting sufficient scales, extent and connectivity of, and between, landscapes and habitats to enable them to withstand the pressures of change and protect and enhance biodiversity and to promote opportunities for social and economic activity based on valuing and enabling access to the natural, historic and built environment
<i>Environment (Wales) Act 2016</i> ³	This Act requires, under Section 6 – Biodiversity and resilience of ecosystems duty, that a public authority must seek to maintain and enhance biodiversity and promote the resilience of ecosystems. This requirement could be interpreted to include landscape as part of the ecosystems approach.
<i>National Parks and Access to the Countryside Act 1949</i> ⁴	This Act provided the framework for the creation of National Parks and Areas of Outstanding Natural Beauty, including the Brecon Beacons National Park which lies within the LVIA Study Area. One of a National Park's statutory duties is the promotion of public understanding and enjoyment of each Park's special qualities steered by a National Park Authority as guided by each Park's statutory Management Plan.

Planning policy

6.2.3 A summary of the relevant national and local planning policy is given in **Table 6.2**.

¹ National Assembly for Wales. (2015). Well-being of Future Generations (Wales) Act 2015. (Online). Available at: <https://www.legislation.gov.uk/anaw/2015/2> (Accessed April 2022).

² Welsh Government. (2021). Planning Policy Wales, Edition 11. (Online). Available at: https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf (Accessed April 2022).

³ National Assembly for Wales. (2016). Environment (Wales) Act 2016. (Online). Available at: <https://www.legislation.gov.uk/anaw/2016/3/contents/enacted> (Accessed April 2022).

⁴ Parliament of the United Kingdom. (1949). National Parks and Access to the Countryside Act 1949. (Online). Available at: <https://www.legislation.gov.uk/ukpga/Geo6/12-13-14/97/contents> (Accessed April 2022).

Table 6.2 Planning policy relevant to the LVIA

Policy	Policy context
National planning policy	
Planning Policy Wales, Edition 11²	<p>With specific reference to large scale wind developments and the landscape, paragraph 5.9.17 recognises that Future Wales⁵ identifies Pre-Assessed Areas where the Welsh Government has already modelled the likely impact on the landscape and has found them to be capable of accommodating development in an acceptable way. There is a presumption in favour of large-scale wind energy development in these areas, subject to other criteria contained within the policy.</p> <p>General LVIA issues are included in Chapter 6 - Distinctive and Natural Places and more specifically within Section 6.3 Landscape. Amongst the statements of particular relevance to Project are those concerning statutory landscape designations i.e. National Parks and AONBs, including paragraph 6.3.5 that states that the duty to have regard to their purposes applies to activities affecting these areas whether those activities are located within or outside a National Park or an AONB.</p> <p>Paragraph 6.3.12 and 6.3.13 relate to non-statutory designations such as Special Landscape Areas that define local areas of high landscape importance, which may be unique, exceptional or distinctive to the area. Planning authorities should apply these designations where there is good reason to believe that normal planning policies cannot provide the necessary protection.</p> <p>Paragraphs 6.3.20 and 6.3.21 concerns the use of LANDMAP and its role in informing landscape assessments needed to inform local authorities in making local policy, guidance and decision making.</p>
Future Wales - The National Plan 2040⁶	<p>Policy 17 – Renewable and Low Carbon Energy and Associated Infrastructure notes that there is a presumption in favour of large-scale wind energy development in Pre-Assessed Areas for wind developments (which the Welsh Government has already modelled the likely impact on the landscape and has found them to be capable of accommodating development in an acceptable way), subject to the criteria in Policy 18. The Proposed Development site lies within Pre-Assessed Area 10. The policy continues by stating that all proposals should demonstrate that they will not have an unacceptable adverse impact on the environment.</p>
Future Wales - The National Plan 2040⁶	<p>Policy 18 – Renewable and Low Carbon Energy Developments of National Significance. Proposals qualifying as Developments of National Significance will be permitted subject to Policy 17 and the criteria listed under Policy 18. Of relevance to the LVIA for the Project, item 2 requires that there are no unacceptable adverse visual impacts on nearby communities and individual dwellings. The cumulative impacts of existing and consented renewable energy schemes should also be considered.</p>

⁵ Welsh Government. (2021). Future Wales - The National Plan 2040. (Online). Available at: <https://gov.wales/future-wales-national-plan-2040-0> (Accessed April 2022).



Policy	Policy context
Local planning policy	
Blaenau Gwent County Borough Council Local Development Plan up to 2021⁷	Policy SP10 Protection and Enhancement of the Natural Environment provides criteria through which Blaenau Gwent's natural environment and designated landscape will be protected, and, where appropriate, enhanced. Of relevance to the LVIA, this includes protecting those attributes and features which make a significant contribution to the character, quality and amenity of the landscape.
Blaenau Gwent County Borough Council Local Development Plan up to 2021⁷	Policy DM1 New Development states that Development proposals will be permitted provided a number of criteria are met, including (and of relevance to the LVIA), that there would be no unacceptable adverse visual impact on townscape or landscape.
Blaenau Gwent County Borough Council Local Development Plan up to 2021⁷	Policy DM4 Low and Zero Carbon Energy provides criteria against which development, such as onshore wind farms will be considered. Of relevance to the LVIA, it requires that development will not have an unacceptable adverse impact on local amenity, which includes (amongst other criteria), visual dominance.
Blaenau Gwent County Borough Council Local Development Plan up to 2021⁷	Policy DM16 Trees, Woodlands and Hedgerow Protection requires that development proposals not give rise to unacceptable harm to trees, woodlands and hedgerows that have natural heritage value or contribute to the character or amenity of a particular locality.
Blaenau Gwent County Borough Council Local Development Plan up to 2021⁷	Policy ENV2 Special Landscape Areas (SLAs) lists the eight SLAs that have been identified within the area administered by Blaenau Gwent County Borough Council using a regionally agreed methodology. Development within the defined SLAs will be expected to conform to the highest standards of design, siting, layout and materials appropriate to the character of the area.
Caerphilly County Borough Local Development Plan up to 2021⁸	CW4 Natural Heritage Protection states that development proposals that affect locally designated natural heritage features, will only be permitted where they conserve and where appropriate enhance the distinctive or characteristic features of the Special Landscape Area (SLA) or Visually Important Local Landscape (VILL).
Caerphilly County Borough Local Development Plan up to 2021⁸	<p>NH1 Special Landscape Areas (SLAs) states that SLAs are identified and will be protected at the following locations:</p> <p>NH1.1 Upper Rhymney Valley; NH1.2 Gelligaer Common; NH1.3 Mynydd Eglwysilan; NH1.4 North Caerphilly; NH1.5 South Caerphilly; NH1.6 Mynyddislwyn.</p> <p>The text accompanying the policy states that <i>"these areas will be protected from any development that would harm their distinctive features or characteristics"</i> and that the applicant will need to demonstrate that any development proposal will</p>

⁷ Blaenau Gwent County Borough Council. (2012). Local Development Plan up to 2021. (Online). Available at: <https://www.blaenau-gwent.gov.uk/en/resident/planning/local-development-plan/adopted-ldp-allocations/adopted-local-development-plan-2006-2021/> (Accessed April 2022).

⁸ Caerphilly County Borough Council. (2010). Local Development Plan up to 2021. (Online). Available at: [https://www.caerphilly.gov.uk/Business/Planning-and-building-control-for-business/Local-Development-Plan/Local-Development-Plan-2010-\(Adopted\)/The-Adopted-LDP](https://www.caerphilly.gov.uk/Business/Planning-and-building-control-for-business/Local-Development-Plan/Local-Development-Plan-2010-(Adopted)/The-Adopted-LDP) (Accessed April 2022).

Policy	Policy context
	not have an unacceptable impact on the specific distinctive features or characteristics associated with the SLA.
Caerphilly County Borough Local Development Plan up to 2021⁸	<p>NH2 Visually Important Local Landscapes (VILLs) states that VILLs are identified and will be protected at the following locations:</p> <p>NH2.1 Northern Rhymney Valley NH2.2 Manmoel NH2.3 Abercarn NH2.4 Rudry</p> <p>The text accompanying the policy states that <i>“Development will only be permitted where it conserves and, where appropriate, enhances the distinctive visual and sensory landscape features or characteristics of the VILL. Development proposals should demonstrate that these features of the visual and sensory LANDMAP aspect layer are conserved and, where appropriate enhanced for the benefit of the visual landscape.”</i></p>
Torfaen County Borough Council Local Development Plan (to 2021)⁹	<p>Policy C2 Special Landscape Areas (SLAs) states that in order to ensure the continued protection and enhancement of the defined SLA’s development proposals that could impact on these designations will be expected to conform to high standards of design and environmental protection which is appropriate to the LANDMAP character of the area.</p>

Technical guidance

6.2.4 A summary of the technical guidance for the LVIA is given in **Table 6.3**.

Table 6.3 Technical guidance relevant to the LVIA

Technical guidance document	Context
Guidelines for Landscape and Visual Impact Assessment (Third Edition)¹⁰	The third edition of this guidance (known as ‘GLVIA3’) which is produced by the Landscape Institute and Institute of Environmental Assessment is widely regarded by landscape and planning professions as the ‘industry standard’ together with best practice and professional experience. GLVIA3 provides the framework within which the remaining sections of the Draft ES have been undertaken with the detailed implications for the methodology by which the LVIA has been undertaken being set out in Section 6.8.
Using LANDMAP in Landscape and Visual Impact Assessments (GN46)¹¹	This guidance outlines Natural Resources Wales (NRW) advice on how LANDMAP information should be used in LVIAs. It sets out typical search and study area extents for a range of heights of tall structures and describes the filtering process that should be applied to existing LANDMAP evidence to help focus the detailed

⁹ Torfaen County Borough Council. (2010). Local Development Plan (to 2021). (Online). Available at:

<https://www.torfaen.gov.uk/lqsl/en/ForwardPlanning/LocalDevelopmentPlan/Local-Development-Plan.aspx>

¹⁰ Landscape Institute and the Institute of Environmental Management and Assessment, (2013). Guidelines for Landscape and Visual Impact Assessment. 3rd edition. London. Routledge

¹¹ Natural Resources Wales. (2021). Using LANDMAP in Landscape and Visual Impact Assessments GN46. (Online).

Available at: <https://naturalresourceswales.gov.uk/guidance-and-advice/business-sectors/planning-and-development/evidence-to-inform-development-planning/using-landmap-in-landscape-and-visual-impact-assessments-gn46/?lang=en> (Accessed 07 July 2021)

Technical guidance document	Context
	assessment of potentially sensitive landscape and visual receptors on the aspect areas most likely to be affected.
Visual Representation of Windfarms (Version 2.2) ¹²	This guidance is focussed on the production of visualisation-related materials to be included within an ES LVIA, made available to the public and to inform decision making. All wind farm applications requiring a Landscape and Visual Impact Assessment as part of an Environmental Impact Assessment should conform with the requirements set out within this document.
Visual Representation of Development Proposals ¹³	This Technical Guidance Note applies to visual representation of all forms of development. Paragraph 1.5.3 notes that the LI supports the Scottish Natural Heritage (now NatureScot) Guidance: <i>Visual Representation of Wind Farms v2.2</i> ¹² and that the <i>Visual Representation of Development Proposals</i> is broadly consistent with the guidance, particularly in respect of Type 4 Visualisation.
Guidance: Assessing the Cumulative Impact of Onshore Wind Energy Developments ¹⁴	This guidance sets out advice on assessing cumulative landscape and visual impacts and is referenced in Chapter 7 of <i>GLVIA3</i> .
Technical Information Note - 2/2019. – Residential Visual Amenity Assessment ¹⁵	This technical information note summarises the requirement and stages of undertaking a Residential Visual Amenity Assessment (RVAA) that focuses upon private views and visual amenity in a manner that is beyond the type of visual assessment specified in <i>GLVIA3</i> . The approach set out facilitates the provision of an RVAA that can be used by a decision maker when weighing potential effects upon overall residential amenity in the planning balance.

6.3 Consultation and engagement

Overview

- 6.3.1 The assessment has been informed by consultation responses and ongoing stakeholder engagement. An overview of the approach to consultation is provided in **Section 2.4 of Chapter 2: Approach to Environmental Impact Assessment**.

Scoping Opinion

- 6.3.2 A Scoping Direction was issued by the Planning and Environmental Decisions Wales (PEDW, formerly Planning Inspectorate Wales) on behalf of the Welsh Ministers, on 15 June 2021. A summary of the relevant responses received in the Scoping Direction in relation to the LVIA and confirmation of how these have been addressed within the assessment to date is presented in **Table 6.4**.

¹² Scottish Natural Heritage (now NatureScot). (2017). Visual representation of wind farms: Guidance. Version 2.2. (Online). Available at: <https://www.nature.scot/visual-representation-wind-farms-guidance> (Accessed 07 July 2021)

¹³ Landscape Institute. (2019). Technical Guidance Note 06/19 Visual Representation of Development Proposals. London. Landscape Institute. (Online). Available at: <https://www.landscapeinstitute.org/visualisation/> (Accessed April 2022).

¹⁴ Scottish Natural Heritage (now NatureScot). (2012). Guidance: Assessing the Cumulative Impact of Onshore Wind Energy Developments. (Online). Available at: <https://www.nature.scot/doc/guidance-assessing-cumulative-impact-onshore-wind-energy-developments#Introduction+and+scope+of+this+guidance> (Accessed 07 July 2021)

¹⁵ Landscape Institute (2019). Technical Guidance Note 2/19 - Residential Visual Amenity Assessment. (Online). Available at: <https://www.landscapeinstitute.org/technical-resource/rvaa/> (Accessed 07 July 2021)

Table 6.4 Summary of EIA Scoping Direction responses for the LVIA

Consultee	Consideration	How addressed in this Draft ES
<p>The Planning Inspectorate</p> <p>ID.3</p>	<p>LANDMAP Guidance:</p> <p>The applicant’s attention is drawn to the comments from NRW that confirm that LANDMAP Guidance Note 3 has been withdrawn and is superseded by LANDMAP Guidance Note 46 (GN46). The Inspectorate welcomes the fact that the main Scoping Report seems to focus on GN46, and the ES should be prepared in line with the latest relevant guidance.</p>	<p>The process outlined in GN46 in relation to LANDMAP evidence to help focus the detailed assessment has been applied and is recorded in Appendix 6B.</p>
<p>The Planning Inspectorate</p> <p>ID.4</p>	<p>LVIA Search and Study Area:</p> <p>The Inspectorate agrees with NRW that the study area should be increased to a 26 km radius, and that the cumulative Zone of Theoretical Visibility (ZTV) should be larger</p>	<p>The LVIA study area and cumulative LVIA study area have been increased to cover the geographic extents required by NRW. The 26 km study area is shown in Figure 6.1.</p>
<p>The Planning Inspectorate</p> <p>ID.5</p>	<p>Distance for cumulative baseline of other wind energy developments:</p> <p>NRW highlight the fact that the stated distance of 26 km would seem to exclude Pen y Cymoedd wind farm, which as the Scoping Report states in 5.3.4 should be included. This supports the fact that a slightly larger distance than 26 km would be appropriate.</p>	<p>A study area of 28km has been used for the cumulative LVIA which includes the Pen y Cymoedd wind farm as shown in Figure 6.4.</p>
<p>The Planning Inspectorate</p> <p>ID.6</p>	<p>Brecon Beacons National Park</p> <p>The applicant’s attention is drawn to comments received from the BBNPA and NRW. BBNPA suggest additional viewpoints that should be included in the LVIA. The applicant should liaise with NRW and BBNPA to finalise the list of viewpoints within the National Park, giving consideration to the National Park’s status as an International Dark Sky Reserve.</p> <p>The likely LVIA effects from the Brecon Beacons National Park are scoped into the ES.</p>	<p>The effects of the Project upon the special qualities of the Brecon Beacons National Park and upon the landscape character as defined by the Brecon Beacons National Park Landscape Character Assessment¹⁶ is considered in Section 6.10 and Appendix 6H. The BBNPA suggestion for additional viewpoints is addressed in relation to the relevant response from BBNPA, below.</p>
<p>The Planning Inspectorate</p> <p>ID.7</p>	<p>Blaenavon World Heritage Site</p> <p>Cadw and NRW raise concerns over the suggested approach to LVIA effects on the World Heritage Site (WHS). The applicant’s stated intention to liaise with Cadw is welcomed and they should ensure that they try to reach an agreed approach to assessing effects on the WHS.</p> <p>The likely effects on the WHS are scoped into the ES.</p>	<p>The effects on the Blaenavon World Heritage Site are included in the preliminary assessment in Chapter 7: Historic Environment.</p>

¹⁶ Fiona Fyfe Associates, with Julie Martin Associates, Alison Farmer Associates and Countryside. (2012). Brecon Beacons National Park Landscape Character Assessment. (Online). Available at: <https://www.landscapeinstitute.org/technical-resource/rvaa/> <https://www.beacons-npa.gov.uk/planning/draft-strategy-and-policy/landscape-character-assessment/> (Accessed 07 July 2021)



Consultee	Consideration	How addressed in this Draft ES
The Planning Inspectorate ID.8	Viewpoints The applicant's attention is drawn to the amendments and additional viewpoints provided by CCBC.	The amended and additional viewpoints provided by CCBC have been included in the Viewpoint Schedule in Table 6.7 .
The Planning Inspectorate ID.9	Evaluation of Landscape and Visual Effects The Inspectorate welcomes the recognition that overly mechanistic reliance on a matrix such as that presented in Table 5.4 of the Scoping Report is to be avoided. As NRW highlight even low magnitude effects on high sensitivity receptors can be significant. The application of professional judgement in the preparation of the ES is an appropriate approach and should be clearly explained.	Noted. The LVIA has been undertaken in accordance with a methodology summarised in Section 6.8 and set out in detail in Appendix 6A .
Blaenau Gwent County Borough Council (BGCBC) Landscape officer	Whilst the focus is largely on the visual impacts of the turbines, the physical impacts on the landscapes fabric characteristics carbon sequestration capacity must also be considered in terms of the overall environmental impacts, particularly in relation to the built elements of roads and ground ancillary installations. A clear understanding of soil/peat loss, hydrology and green infrastructure should be fully explored as well as the consequential impacts of fragmentation of the landscape types.	The aspects detailed in the response are considered (where relevant) in Chapter 10: Water Environment, Chapter 11: Ground Conditions and Chapter 16: Socio-economics .
Caerphilly County Borough Council Planning officer	Recommends the following amendments and additional viewpoints: Viewpoint 3 from Northern Edge of Cwm Nant Gwynt. The panoramic and direct view afforded when looking north from the northern edge of the residential settlement Pentwyn, from Trinant Terrace would be more appropriate given the different topographic levels (OS Grid Ref 320632,200757). Two additional viewpoints at: <ul style="list-style-type: none"> Residential area of Markham looking NE from Abernant Road (OS Grid Ref 316855,201336); and Cefn Y Brithdir looking East on the Rhymney Valley Ridgeway Walk and within the North Rhymney Valley. (OS Grid Ref 313565,203055). 	The recommended amendment and additional viewpoint locations have been included in the Viewpoint Schedule in Table 6.7 as Viewpoints 5, 8, and 13 respectively.
Brecon Beacons National Park Authority (BBNPA)	Consideration should be given to additional viewpoints from: <ul style="list-style-type: none"> The Bloreng: The trig point is a well visited important viewpoint in the National Park. Mynydd Llangynidr: Open Access Land / Public Right of Way (The Chartist's Cave, Karst landscape and numerous Cairns attract walkers to explore this landscape). 	The additional viewpoint locations have been included in the Viewpoint Schedule in Table 6.7 as Viewpoints 18 and 20 respectively

Consultee	Consideration	How addressed in this Draft ES
NRW	The scope of the assessment should be increased to address the potential for significant adverse effects on the National Park.	The effects of the Project upon the special qualities of the Brecon Beacons National Park and upon the landscape character as defined by the Brecon Beacons National Park Landscape Character Assessment ¹⁶ is considered in Section 6.10 and Appendix 6H .
NRW	Advise that the Study Area is increased to 26km radius and that the cumulative Zone of Theoretical Visibility (ZTV) should be slightly larger than 26km.	The LVIA study area has been increased to cover a 26km radius and is shown in Figure 6.1 . The cumulative LVIA study area covers a radius of 28km as illustrated in Figure 6.4 .
NRW	The WHS overlaps with the National Park to the east and includes the highly sensitive viewpoint of the Bloreng. The proposal is likely to be highly visible from Coety Mountain and the ZTV indicates visibility of turbine blades from the Bloreng, within 10km to the east. The Registered Historic Landscape of Blaenavon (RHL) extends further west than the WHS and we recommend that the Glamorgan Gwent Archaeological Trust on the RHL and other potentially effected RHL. We advise that Cadw should be consulted on the WHS.	The Bloreng has been included in the Viewpoint Schedule in Table 6.7 as Viewpoint 18. The effects on the Blaenavon World Heritage Site are included in the preliminary assessment in Chapter 7: Historic Environment .
NRW	Advise that additional viewpoints within the National Park are included as follows: <ul style="list-style-type: none"> • trig point at Cefn yr Ystrad; • trig point at Mynydd Llangynidr; • trig point at Mynydd Llangatwg;; • the Bloreng; and • Pen Cerrig Calch. 	The additional viewpoint locations have been included in the Viewpoint Schedule in Table 6.7 (in order of increasing separation distance) as follows: <ul style="list-style-type: none"> • Viewpoint 17: trig point at Mynydd Llangatwg; • Viewpoint 18: the Bloreng; • Viewpoint 20: trig point at Mynydd Llangynidr; • Viewpoint 21: trig point at Cefn yr Ystrad; and • Viewpoint 22: Pen Cerrig Calch.
NRW	Advise that, in accordance with Landscape Institute TGN06/19 Visual Representation of Development Proposals, Type 4 representations with photomontages should be provided for additional viewpoints within the National Park, given the sensitivities. Cumulative photomontages/wirelines should also be produced illustrating cumulative effects on the National Park.	Photomontages have been provided for the additional viewpoints within the National Park with the exception of Viewpoints 21: trig point at Cefn yr Ystrad; and 22: Pen Cerrig Calch.
NRW	At least one viewpoint within the National Park should be included as a night-time viewpoint. Viewpoints from dark areas of landscape should be included as appropriate, not only from lit roads and settlements.	A night-time photograph from Viewpoint 18: the Bloreng has been included as one of the four night-time viewpoints.
NRW	NRW have recently commissioned a report on Dark Skies, which should be referred to in the assessment.	This report has been referenced in Section 6.4 and relevant findings included in the baseline and subsequent

Consultee	Consideration	How addressed in this Draft ES
	Please refer to the Dark Skies and Light Pollution in Wales webpage for further guidance.	assessment of effects on night-time views which is included in Appendix 6J .

6.4 Data gathering methodology

Study area

LVIA study area

- 6.4.1 Using *LANDMAP in Landscape and Visual Impact Assessments GN46¹¹* advises that the LVIA Study Area for wind turbines of a height of 180m (to blade tip) should be based on an area 26km distance from each of the proposed turbine locations as illustrated in **Figure 6.1**.
- 6.4.2 It is important to note that the boundary of the LVIA Study Area is not the limit of potential visibility. Rather, it is an area defined by NRW, on the basis of development management cases and evidence reports in relation to vertical structures, to determine a suitable LVIA Study Area for the assessment of wind farms which will contain all likely significant landscape and visual effects.

Cumulative LVIA study area

- 6.4.3 On the basis of the consultation responses, the cumulative study area extends to 28km to ensure that Pen-y-Cymoedd, at a distance of approximately (~) 26.3km from the Site boundary, can be captured within the cumulative LVIA.

Desk study

- 6.4.4 A summary of the organisations that have supplied data, together with the nature of that data is outlined in **Table 6.5**.

Table 6.5 Data sources used to inform the LVIA

Organisation	Data source	Data provided
Ordnance Survey (OS)	Scale 1:50,000 and 1:25,000 mapping as appropriate	Baseline information on the landscape context including topography, drainage, settlement pattern, land use, tree cover, promoted recreational routes, transport network and infrastructure.
Google Earth Pro	Aerial photography (imagery date July 2021) and Street View.	Baseline information and Street View images on the landscape context including drainage, settlement pattern, land use, tree cover, transport network and infrastructure.
NRW	LANDMAP Geological Landscape (GLAA), Landscape Habitats (LHAA), Visual and Sensory (VSAA), Historic	Baseline information on landscape character in Wales, recorded and evaluated in a nationally consistent data set.

Organisation	Data source	Data provided
	Landscape (HLAA) and Cultural Landscape (CLAA) GIS dataset and evaluations.	
	Tranquillity and Place – Dark Skies Report No: 514 ¹⁷	Web-based map of Dark Skies and Light Pollution in Wales and accompanying report provides baseline information with regard to light pollution.
Brecon Beacons National Park Authority	<i>A Management Plan for the Brecon Beacons National Park 2015-2020</i> ¹⁸ and <i>Future Beacons, The Management Plan for the Brecon Beacons National Park 2022-2027, Consultation Draft</i> ¹⁹	Baseline information on the special qualities of the National Park.
	Brecon Beacons National Park Landscape Character Assessment ¹⁶	Baseline information on landscape character within the National Park.
	Brecon Beacons National Park – Dark Sky Reserve External Lighting Management Plan ²⁰	Provides practical advice on mitigating stray light within the boundaries of Brecon Beacons National Park but can be equally followed in the other parts of the adjacent counties to protect, maintain or improve the existing dark sky attributes and the rural environmental setting of intrinsic darkness.
Blaenau Gwent County Borough Council (BGCBC)	Heads of the Valleys Smaller Scale Wind Turbine Development - Landscape Sensitivity and Capacity Study ²¹	This study covers five local authorities including the host local authority: Blaenau Gwent County Borough Council plus Torfaen County Borough Council, Caerphilly County Borough Council; Merthyr Tydfil County Borough Council and Rhondda Cynon Taff Borough Council. As set out in its methodology, the Study is confined to wind turbine developments that do not exceed a planned capacity of 5MW i.e. for a maximum of two turbines over 109m blade tip height. Nevertheless, aspects of the Study are likely to remain relevant to the Proposed Development.

¹⁷ Green C, Manson D, Chamberlain K 2021. Tranquillity and Place – Dark Skies. NRW Report No: 514. (Online). Available at: <https://luc.maps.arcgis.com/apps/opsdashboard/index.html#/1cd6ba8a1d7d4a62aff635cfcba4a4ec>

¹⁸ Brecon Beacons National Park Authority. (2015). A Management Plan for the Brecon Beacons National Park 2015-2020. (online). Available at: <https://www.beacons-npa.gov.uk/the-authority/who-we-are/npmp/> (Accessed 07 July 2021)

¹⁹ Brecon Beacons National Park Authority. (2021). Future Beacons. The Management Plan for the Brecon Beacons National Park 2022-2027 Consultation Draft. (Online). Available at: <https://www.beacons-npa.gov.uk/the-authority/who-we-are/npmp/management-plan-review/> (Accessed 21 January 2022)

²⁰ Lighting Consultancy and Design Services Ltd. (Undated). Brecon Beacons National Park – Dark Sky Reserve External Lighting Management Plan. (Online). Available at: <https://www.darksky.org/our-work/conservation/idsp/reserves/breconbeacons/> (Accessed April 2022).

²¹ Gillespies. (2015). Heads of the Valleys Smaller Scale Wind Turbine Development - Landscape Sensitivity and Capacity Study. (Online). Available at: <https://www.blaenau-gwent.gov.uk/en/resident/planning/local-development-plan/spg-documents/> (Accessed April 2022).

Organisation	Data source	Data provided
	Wind Turbine Mapping – South East Wales ²²	Interactive map showing wind turbines that are operational, consented and in planning. The maps are updated quarterly and are based on information provided by each Local Planning Authority in South East Wales. Provides information for the Cumulative LVIA.
	Proposals for designation of Special Landscape Areas in Blaenau Gwent ²³	Provides baseline information on the Special Landscape Areas (SLAs) within the area administered by BGCBC.
Caerphilly County Borough Council (CCBC)	Smaller Scale Wind Turbine Development Landscape Sensitivity and Capacity Study ²⁴	This covers the remaining area administered by CCBC that was not included in the above referenced Heads of the Valleys Smaller Scale Wind Turbine Development - Landscape Sensitivity and Capacity Study and the caveats noted above apply.
	Development of Criteria for Special Landscape Area Designations for South East Wales Local Authorities ²⁵	Sets out the criteria which should be used to define SLAs across South East Wales (the host and neighbouring authorities).
	Designation of Special Landscape Areas ²⁶	Provides baseline information on the SLAs within the area administered by CCBC.
	Designation of Visually Important Local Landscapes ²⁷	Provides baseline information on the Visually Important Local Landscapes (VILLs) within the area administered by CCBC.
Torfaen County Borough Council (TCBC)	Designation of Special Landscape Areas ²⁸	Provides baseline information on the SLAs within the area administered by TCBC.

²² Blaenau Gwent County Borough Council. (2021). Wind Turbine Mapping – South East Wales. (Online). Available at: <https://www.blaenau-gwent.gov.uk/en/resident/planning/local-development-plan/wind-turbine-mapping/> (Accessed 07 July 2021)

²³ Bronwen Thomas Landscape Architect. (2009). Proposals for designation of Special Landscape Areas in Blaenau Gwent. (Online). Available at: <https://www.blaenau-gwent.gov.uk/fileadmin/documents/Legacy/PlanningPolicy/SD110.pdf> (Accessed 07 July 2021)

²⁴ Gillespies. (2015). Smaller Scale Wind Turbine Development - Landscape Sensitivity and Capacity Study. (Online). Available at: [https://www.caerphilly.gov.uk/Business/Planning-and-building-control-for-business/Local-Development-Plan/Supplementary-Planning-Guidance-\(SPG\)](https://www.caerphilly.gov.uk/Business/Planning-and-building-control-for-business/Local-Development-Plan/Supplementary-Planning-Guidance-(SPG)) (Accessed 07 July 2021)

²⁵ TACP. (2007). Development of Criteria for Special Landscape Area Designations for South East Wales Local Authorities. (Online). Available at: <https://apps.caerphilly.gov.uk/LDP/Examination/PDF/SEW8.pdf> (Accessed 07 July 2021)

²⁶ TACP. (2008). Designation of Special Landscape Areas. (Online). Available at: <https://apps.caerphilly.gov.uk/LDP/Examination/PDF/SB47.pdf> (Accessed 08 July 2021)

²⁷ TACP. (2008). Designation of Visually Important Local Landscapes. (Online). Available at: <https://apps.caerphilly.gov.uk/LDP/pdf/Caerphilly-Designation-of-VILLs-Final-Report-April-2008.pdf> (Accessed 08 July 2021)

²⁸ TACP. (2011). Designation of Special Landscape Areas. (Online). Available at: [https://www.torfaen.gov.uk/en/Related-Documents/Forward-Planning/SD67-DesignationofSpecialLandscapeAreas\(versionuploadedMay2011.pdf](https://www.torfaen.gov.uk/en/Related-Documents/Forward-Planning/SD67-DesignationofSpecialLandscapeAreas(versionuploadedMay2011.pdf) (Accessed 08 July 2021)

Organisation	Data source	Data provided
Merthyr Tydfil County Borough Council (MTCBC)	Local Development Plan (2016 – 2031) Background Paper: Special Landscape Areas ²⁹	Provides baseline information on the SLAs within the area administered by MTCBC.
Sustrans	National Cycle Routes ³⁰	Provides details of National Cycle routes within the LVIA study area.

Zone of Theoretical Visibility (ZTV) and wind farms relevant to the cumulative assessment

- 6.4.5 Analysis of Zone of Theoretical Visibility maps (ZTVs) is used to further define the scope of the assessment. The ZTVs have been calculated using ArcGIS computer software to produce an area of potential visibility of any part of the proposed turbines, calculated to turbine blade-tip and hub-height at heights 180m and 105m Above Ground Level (AGL) respectively. The ZTV does not however take account of built development and vegetation, which can significantly reduce the area and extent of actual visibility in the field and as such provides the limits of the visual assessment Study Area. As a result, there may be roads, tracks and footpaths in the wider setting which, although shown as falling within the ZTV, have restricted viewing opportunities since they are heavily screened or filtered by built form, forestry, banks, walls or hedgerow vegetation. The ZTVs therefore provide a starting point in the assessment process and accordingly tend to over-estimate the potential visibility of the proposed turbines.
- 6.4.6 Two ZTV maps have been provided as follows:
- **Figure 6.2:** illustrates the ZTV calculated to blade tip height (180m) at 1:50,000 scale and the locations of viewpoints 1-21 (viewpoints 22 and 23 are shown on **Figure 6.15** at a scale of 1:200,000); and
 - **Figure 6.3:** illustrates the ZTV calculated to hub height (105m) at 1: 50,000 scale and the locations of viewpoints 1-21 (viewpoints 22 and 23 are shown on **Figure 6.15** at a scale of 1:200,000).
- 6.4.7 Other existing and consented wind farms, and wind farm applications within the cumulative LVIA study area are shown on **Figure 6.4** and included in **Table 6.6**.

²⁹ Merthyr Tydfil County Borough Council. (2017). Local Development Plan (2016 – 2031) Background Paper: Special Landscape Areas. (Online). Available at: <https://www.merthyr.gov.uk/media/3062/proposed-sla-designations-ldp-2016-2031-background-paper.pdf> (Accessed 08 July 2021)

³⁰ Sustrans. (2021). Map of the National Cycle Network. (Online). Available at: <https://www.sustrans.org.uk/national-cycle-network> (Accessed 08 July 2021)

Table 6.6 Wind Farms relevant to the cumulative assessment as of April 2022

Name of wind farm	Local Authority	Number of wind turbines	Height to blade tip (m)	Approximate distance to the closest Proposed Mynydd Carn y Cefn Wind Farm turbine (km)	Status
Cumulative LVIA Study Area (within 10km)					
Pen Y Fan Ganol Farm	Caerphilly County	1	73.5	1.4 km	Operational
Coed y Gilfach Farm	Blaenau Gwent	2	45	2.3 km	Operational
Penyfan Leisure Park	Caerphilly County	3	31 (va) ³¹	2.3 km	Consented
Silent Valley	Blaenau Gwent	1	102	2.5 km	In Planning
Mynydd Llanhilleth	Blaenau Gwent /Torfaen	12	180	2.7 km	Scoping
Abertillery	Blaenau Gwent /Torfaen	7	180	2.9 km	Scoping
Oakdale Business Park	Caerphilly County	2	130	3.0 km	Operational
Pen-y-Fan Industrial Estate	Caerphilly County	1	124	3.1 km	Operational
Manmoel	Blaenau Gwent	5	180	3.1 km	Scoping
Cruglwyn	Caerphilly County	2	86.5	3.4 km	Operational
Gelli-wen Farm	Caerphilly County	1	77	4.2 km	Operational
Penrhiwgwaith Farm	Blaenau Gwent	1	86.5	4.3 km	Operational
Blaentillery Farm	Blaenau Gwent	2	45	4.4 km	Operational
Pen-yr-heol Farm	Caerphilly County	1	77	4.6 km	Operational
Bedlwyn Farm	Caerphilly County	1	86.5	4.7 km	Operational
Tir Y Ferch Gryno Farm	Caerphilly County	1	36	5.5 km	Consented
Groesfaen Farm	Caerphilly County	1	77	6.6 km	Operational
Cefn Bach Farm	Caerphilly County	1	78	6.7 km	Operational
Eurocaps Premises, Crown Business Park	Blaenau Gwent	2	45	8.2 km	Operational
Pen Bryn Oer	Caerphilly County	3	110	8.6 km	Operational
Rassau Industrial Estate (Former Tech Board Site)	Blaenau Gwent	1	77	8.9 km	Operational

³¹ (va) vertical axis wind turbines

Name of wind farm	Local Authority	Number of wind turbines	Height to blade tip (m)	Approximate distance to the closest Proposed Mynydd Carn y Cefn Wind Farm turbine (km)	Status
Rassau Industrial Estate (Unit 15)	Blaenau Gwent	1	72	8.9 km	Operational
Rassau Industrial Estate (Unit 19)	Blaenau Gwent	1	80	8.9 km	Consented
Cumulative LVIA study area (within 10 - 28km)					
Tafamaubach Industrial Estate	Blaenau Gwent	1	74	10.0 km	Operational
Bryn Ysgawen Farm	Caerphilly County	1	77	11.0 km	Operational
Tyle Crwth	Caerphilly County	1	76	11.6 km	Operational
Cefn Fforest Farm	Merthyr Tydfil	1	102	12.0 km	Operational
Tir Cook Farm	Merthyr Tydfil	1	77	12.1 km	Operational
Castell Llwyd Farm	Caerphilly County	1	77	12.1 km	Operational
Twyn Hywel	Caerphilly County	20	200	12.2 km	Scoping
Pen March	Caerphilly County/ Merthyr Tydfil	7	180	12.3 km	Scoping
Pengarnddu Industrial Estate (plot 3)	Merthyr Tydfil	1	77	12.4 km	Operational
Pengarnddu Industrial Estate (plot 5)	Merthyr Tydfil	1	77	12.5 km	Operational
Pengarnddu Industrial Estate (adjacent to plot 3)	Merthyr Tydfil	1	57	12.5 km	Consented
Land at Graig yr hufen Road	Caerphilly County	1	77	12.9 km	Consented
Bryntail Farm	Rhondda Cynon Taff	2	71	16.7 km	In Planning
Clearwell Farm	Newport	1	53	18.7km	Operational
Llwyncelyn Farm	Rhondda Cynon Taff	2	125	19.4 km	Consented
Mynydd Y Glyn	Rhondda Cynon Taff	7	180	21.0 km	Scoping
11 East Way Road, Alexandra Docks	Newport	1	125	21.8 km	Operational

Name of wind farm	Local Authority	Number of wind turbines	Height to blade tip (m)	Approximate distance to the closest Proposed Mynydd Carn y Cefn Wind Farm turbine (km)	Status
Ferndale	Rhondda Cynon Taff	8	74	21.9 km	Operational
Solutia	Newport	2	126.5	21.9 km	Operational
South Docks - Newport Docks	Newport	1	126	22.0 km	Operational
Nash Treatment Works	Newport	1	130	23.0 km	Operational
Mynydd Bwlfa	Rhondda Cynon Taff	9	115/125	23.5 km	Operational
Maerdy	Rhondda Cynon Taff	8	145	24.0 km	Operational
G24i	Cardiff City	1	135	24.0 km	Operational
Nant y Gwyddon	Rhondda Cynon Taff	1	121	24.0 km	Consented
Abergorki	Rhondda Cynon Taff	3	146	24.1 km	Consented
West of Rhiwfelein Fach Farm	Rhondda Cynon Taff	1	100	24.2 km	Consented
Maerdy Wind Farm 9	Rhondda Cynon Taff	1	145	24.3 km	Consented
Pen-y-Cymoedd	Rhondda Cynon Taff	76	145	25.2 km	Operational
Fforch Nest Wind Farm	Bridgend/Rhondda Cynon Taff	4	115	25.3 km	Operational
Mynydd Pwllyrhebog (Part of Fforch Nest)	Rhondda Cynon Taff	7	115	25.3 km	Operational
Tesco Distribution Centre	Newport	2	100	25.7 km	Operational
Pant-y-Wal	Bridgend	10	115	26.1 km	Operational
Graig Fatha Farm	Rhondda Cynon Taff	1	126	26.1 km	Consented
Mynydd Portref Extension	Rhondda Cynon Taff	6	110	26.5 km	Operational
Land adj to & South of Rush Wall Redwick	Newport	1	150	26.7 km	Operational

Name of wind farm	Local Authority	Number of wind turbines	Height to blade tip (m)	Approximate distance to the closest Proposed Mynydd Carn y Cefn Wind Farm turbine (km)	Status
Land to North of Little Longlands	Newport	1	100	26.8 km	Operational
Rhigos Road	Rhondda Cynon Taff	1	78	26.8 km	Consented
Pant y Wal Windfarm Extension	Bridgend	8	125	26.9 km	Operational
Mynydd Portref	Rhondda Cynon Taff	11	75/86	27.1 km	Operational
Headwind Taff Ely	Rhondda Cynon Taff	7	110	27.1 km	Operational
Coombe Farm	Monmouthshire	1	45	27.2 km	Operational
Taff Ely	Rhondda Cynon Taff	20	53	27.3 km	Operational

6.4.8 Four cumulative ZTVs have been prepared to provide an indication of the intervisibility between those schemes that are considered to have the greatest potential to generate significant cumulative landscape or visual effects. The four ZTVs and the schemes included in each are as follows:

- **Figure 6.22** Cumulative Zones of Theoretical Visibility in relation to Abertillery and Mynydd Llanhilleth wind farms;
- **Figure 6.23** Cumulative Zones of Theoretical Visibility in relation to Oakdale and Pen Y Fan Industrial Estate wind turbines and Manmoel wind farm;
- **Figure 6.24** Cumulative Zones of Theoretical Visibility in relation to Pen March and Twyn Hywel wind farms; and
- **Figure 6.25** Cumulative Zones of Theoretical Visibility in relation to Pen Y Fan, Ganol Farm and Silent Valley wind turbines.

Field Survey

6.4.9 A number of field surveys have been undertaken as follows:

- A field survey in March 2021 to obtain viewpoint photography and check the validity of the viewpoints subsequently listed in Table 5.2 of the Environmental Impact Assessment Scoping Report³² (April 2021); and

³² Wood Group UK Ltd (on behalf of Pennant Walters Ltd). (2020). Mynydd Carn y Cefn Wind Farm, Environmental Impact Assessment Scoping Report (Document reference 42863-WOOD-XX-XX-RP-O-0001_A_R1)

- A second field survey in August 2021 to visit and obtain a photograph record from the viewpoint locations requested by consultees in the Scoping Direction which was issued on behalf of the Welsh Ministers, on 15 June 2021.

6.4.10 All photography has been undertaken in accordance with the LI's *Visual Representation of Development Proposals*¹³ and has been undertaken during the winter months (where possible) thereby reflecting the maximum visibility scenario. All photographs presented in the figures accompanying the LVIA have been taken using:

- A high resolution digital SLR camera with a 'full frame' sensor (i.e. 36 x 24 mm) with the camera set at 1.5 m AGL¹²;
- A 50 mm fixed focal length (prime) lens; and
- A professional quality tripod fitted with a panoramic head.

6.4.11 Accurate locations are established using a hand-held Global Positioning System (GPS) unit and recorded on a standardised proforma.

Viewpoint analysis

6.4.12 Viewpoint analysis is used to assist the design and further define the scope of the assessment. In particular, the maximum distance from the Proposed Development at which significant effects are likely to be sustained has been identified. This has been used to focus the baseline information and detailed reporting of this assessment.

6.4.13 The viewpoints selected for the assessment have been agreed with consultees including the relevant local authorities, NRW and the BBNPA. The final viewpoint schedule is set out in **Table 6.7** which includes the reason for their selection and whether the viewpoints are representative, illustrative or specific as defined in GLVIA3¹⁰.

6.4.14 Fifteen of the 16 viewpoints listed in Table 5.2 of the Environmental Impact Assessment Scoping Report³² have been taken forward to the assessment stage. The location of the original viewpoint 3 has been amended at the request of Caerphilly County Borough Council (CCBC) (and has become Viewpoint 5), whilst an additional seven viewpoint locations have been requested by CCBC, NRW and the BBNPA.

6.4.15 As a consequence of design iteration and the amended locations of the turbines from those presented in the Environmental Impact Assessment Scoping Report³², the final order of the viewpoints set out in **Table 6.7** has been updated in comparison to Table 5.2 of the Scoping Report³² to ensure that the viewpoints are presented in order of increasing separation distance from the nearest proposed turbine to allow the distance threshold for likely significant effects to be determined.

6.4.16 Visualisations have been prepared for each viewpoint to accord with SNH guidance¹² and include 90° baseline photographs and wirelines, and 53.5° photomontages and wirelines at **Figures 6.26 – 6.48**. The viewpoint assessment for each of the 23 selected viewpoints is reported in **Appendix 6I**.

6.4.17 Cumulative wind farm development that would be visible within the CLVIA Study Area have been illustrated as wirelines and follows the photomontage and/or wireline views of the Proposed Development, also at **Figures 6.26 – 6.48**.

6.4.18 Viewpoint analysis has also been used for the night-time assessment which included four of the day-time viewpoint locations (viewpoints 1, 3, 5 and 18). The Night-time Assessment is reported in **Appendix 6J** and the night-time baseline view from each of the four viewpoints is shown in **Figures 6.26k, 6.28h, 6.30h and 6.43h** which accompany the appendix.

Table 6.7 LVIA Viewpoint locations

Viewpoint No. Title & Grid Ref	Minimum Separation Distance*	Viewpoint Typology (GLVIA3) / Principal Receptor(s)	Comment	Night-time viewpoint?
1 – North-eastern Abertillery E 321382, N 204904	1.2 km (T3)	Representative – Residential receptors	Views from Attlee Avenue representative of the views available to residents in one of closest communities with minimal foreground screening/clutter.	Yes
2 – Six Bells Mining Memorial, Abertillery E 321958, N 202879	1.2 km (T5)	Specific – Recreational receptors Representative – Residential receptors	Tourist attraction in park alongside Ebbw Fach River. Representative of views available to some residents in one of the closest communities.	No
3 – Cwm E 318533, N 205339	1.5 km (T1)	Illustrative – Residential receptors	Mill Terrace bridge over A4046 in settlement centre illustrates one of most open south-eastern views available to residents in one of closest communities.	Yes
4 - Sirhowy Valley Walk, Manmoel E 317778, N 203392	2.1 km (T6)	Representative – residential & recreational receptors	Provides a view east over nearby community of Manmoel representing views from this community as well as view available along the closest section of a regional trail and local PRow network. Located in Caerphilly VILL Manmoel. Viewpoint at roadside start of PRow.	No
5 - Northern edge of Cwm-Nant-Gwynt E 320631, N 200767	2.1km (T8)	Specific – Recreational receptors Representative – Residential receptors	Bench on Trinant Terrace represents the northern views available to many residents in several relatively elevated communities to the south. Requested by CCBC.	Yes
6 – Pen-y-Fan Pond Country Park E 319660, N 200695	2.3 km (T8)	Illustrative – recreational receptors	PRow/ Access Land on track along northern side of pond provides most open north-eastern views from Park.	No
7 – Festival Park, Ebbw Vale	2.9 km (T1)	Illustrative – residential &	One of most open views (carpark) available from this tourist destination and illustrates periodic views from	No

Viewpoint No. Title & Grid Ref	Minimum Separation Distance*	Viewpoint Typology (GLVIA3) / Principal Receptor(s)	Comment	Night-time viewpoint?
E 317390, N 206195		recreational receptors	nearby community. Mentioned in 2015 Inspector's Report on Hafod-y-Dafal Wind Farm.	
8 - Abernant Road, Markham E 316848, N 201352	3.7km (T6)	Representative – Residential receptors	Representative of the views available to residents on the western edge of Markham. Requested by CCBC.	No
9 – Summit of Mynydd Carn y Cefn E 318714, N 208498	3.9 km (T1)	Specific / Illustrative – recreational receptors	Most elevated location in the extensive Carn y Cefn & Cefn Arail SLA and large Access Land. Mentioned in 2015 Inspector's Report on Hafod-y-Dafal Wind Farm.	No
10 – PRow/School Playing Fields at Oakdale E 319117, N 198578	4.5 km (T8)	Illustrative – residential & recreational receptors	One of the most open publicly accessible northern middle-distance views available from the extensive communities of Oakdale, Croespenmaen and Blackwood.	No
11 – Eastern edge of Nantyglo/Blaina E 320001, N 209457	4.6km (T1)	Representative – residential receptors	Views from Attlee Road, Coedcae representative of the wide and elevated views available to residents in one of closest communities with minimal foreground screening/clutter.	No
12 – Summit of Mynydd Bedwellte E 314512, N 206008	5.5 km (T1)	Specific / Illustrative – recreational receptors	Trig point is most elevated location in Mynydd Bedwellte & Rhymney Hill SLA and in Access Land.	No
13 - Rhymney Valley Ridgeway Walk, Cefn Y Brithdir E 313608, N 203029	6.3km (T6)	Representative – recreational receptors	Representative of views available from a section of the Rhymney Valley Ridgeway Walk Requested by CCBC.	No
14 – Brynmawr/Twyn Cynhordy E 318754, N 211927	7.2 km (T1)	Representative – residential receptors	Section of Hill Street between Hill Crest and Hill Crescent offers one of best examples of the southern views down Ebbw Vale Fach to residents of these two extensive communities.	No
15 – Mynydd Garnlochdy/Goetre Fawr E 329168, N 206054	8.4km (T5)	Specific / Illustrative – recreational receptors	Closest part of National Park within hub height ZTV. Access Land. One of few long distance views available from the east.	No
16 – Northern edge of Gelligaer	9.1 km (T8)	Representative – residential &	Minor road (Hoel Adam) just north of Cross Inn close to northern edge of elevated community of Gelligaer, a	No

Viewpoint No. Title & Grid Ref	Minimum Separation Distance*	Viewpoint Typology (GLVIA3) / Principal Receptor(s)	Comment	Night-time viewpoint?
E 313046, N 297349		recreational receptors	section of regional route and PRoW network. Also close to Roman Fort and within Gelligaer SLA.	
17 - Trig point at Mynydd Llangatwg	9.7 km (T1)	Representative - recreational receptor	Open Access Land / PRoW within the Brecon Beacons National Park	No
E 320279, N 214485			Requested by NRW.	
18 - The Bloreng	10.0 km (T2)	Specific – recreational receptor	Popular viewpoint within the Brecon Beacons National Park.	Yes
E 326986, N 211842			Requested by BBNPA and NRW.	
19 - Twmbarlwn Iron Age Fort summit	11.0 km (T8)	Specific – recreational receptor	Northern side of summit noted on OS maps as providing 360 degrees views. Popular with locals and visitors with carpark provided. Representative of middle-distance views from south.	No
E 324200, N 192612				
20 - Trig point at Mynydd Llangynidr	12.3 km (T1)	Specific – recreational receptor	Open Access Land / PRoW within the Brecon Beacons National Park. The nearby Chartist's Cave, Karst landscape and numerous Cairns attract walkers to explore this landscape.	No
E 314711, N 215924			Requested by BBNPA and NRW.	
21 - Trig point at Cefn yr Ystrad	14.3 km (T1)	Specific – recreational receptor	Trig point/Open Access Land within the Brecon Beacons National Park.	No
E 308692, N 213730			Requested by NRW.	
22 - Pen Cerrig Calch	17.6km (T1)	Specific - recreational receptors	Trig Point/Open Access Land on the southern edge of The Black Mountains within the Brecon Beacons National Park.	No
E 321705, N 222359			Requested by NRW.	
23 - Beacons Way at Craig-y-Fan Du	20.2km (T1)	Illustrative – recreational receptors	Illustrative of long-distance views available south-east from some elevated locations in National Park that is one of most popular. Location is on regional route and nearest summit (683m) to a carpark and road access.	No
E 305232, N 218773				

* to nearest turbine

6.5 Overall baseline

Current baseline

The Site and immediate surrounding area

- 6.5.1 The Site is located on the southern end of the north/south orientated ridgeline that separates the valleys occupied by the Ebbw Fawr River to the west and the Ebbw Fach River to the east. The confluence of the two rivers is located at Aberbeeg close to the southern end of the Site.
- 6.5.2 The Site possesses a complex topography. The most elevated part of the Site is at its northern boundary where it attains a height of 450m Above Ordnance Datum (AOD). The northwards extending ridgeline continues to gradually rise to a high point of 550m at Mynydd Carn y Cefn 3.6km to the north. The southern section of the ridgeline is bifurcated into two spurs by a 2.3km long, steep-sided valley (Cwm Big). Cwm Big is outside the Site whose central and southern part is consequently split into a more extensive eastern part and a smaller western part. The western part of the Site falls to the south as a concave slope to an elevation of approximately 320m, whilst its western boundary above the Ebbw Fawr River Valley broadly follows the 330m contour line. Its eastern boundary towards Cwm Big begins to fall away but Cwm Big's steepest, wooded slopes are outside the Site. The eastern part of the Site descends to approximately 300m at its south-eastern boundary, adhering to the top of the steep-sided, wooded eastern side of Cwm Big to the immediate west and the equally steep-sided western slopes of the closest section of the valley of the Ebbw Fach River at Abertillery and Six Bells to the east. To the west, south and east the Ebbw Fawr and Fach valley sides immediately rise to other ridgelines and incised upland areas at similar elevations. The landform within the LVIA study area is shown in **Figure 6.5**.
- 6.5.3 The Site broadly accords with the upper parts of the ridgeline and its southern spurs where the land-use is improved and semi-improved grazing land. The immediately adjacent steeper valley sides are principally used for commercial woodland, which is a mixture of tracts of coniferous and broadleaved species with the former predominating. An outlying block of this woodland (Deri Merddog) is located within the north-west corner of the Site.
- 6.5.4 The land-use of the more elevated section of the ridgeline that extends northwards is primarily unimproved upland moorland with a consequent absence of field boundaries. This paucity of field boundaries extends some of the northern and central parts of the Site east of Cwm Big including a substantial area that is used for motorbike scrambling. The paucity of field boundaries contrasts with the more southerly and westerly parts of the Site where the improved and semi-improved grazing land is characterised by a distinctive angular shaped field pattern. Field boundaries are stone walls and isolated lengths of beech hedgerow that are overgrown.
- 6.5.5 A recent development (operational since December 2015) within the Site is the 28.6ha Hafod-y-Dafal Solar Farm which has a capacity of 14MW. Panels associated with the solar farm occupy seven fields, six of which are sited immediately west of Cwm Big and close to

the derelict and unoccupied Hafod-y-Dafal farmhouse. The only other built development is the farmhouse and outbuildings at Arail in the southern part of the eastern spur.

- 6.5.6 There are substantial levels of public access within the Site with several public rights of way including restricted byways and bridleways. These facilitate access from the more populated surrounding valleys. The north-west corner of the Site (including the Deri Merddog wooded area) is Access Land. This Access Land extends northwards along the top and upper slopes of the ridgeline, past Mynydd Carn y Cefn as far as Beaufort. The areas of woodland that surround the western spur of the Site are also Access Land.

Landscape character

National Landscape Character

- 6.5.7 At the national scale of NRW's 48 National Landscape Character Areas (NLCAs), the Site is located within NLCA 37: South Wales Valleys. This covers an extensive upland area dissected by deep, urbanised valleys. The key characteristics of this NLCA are as follows:
- *“Extensive Upland plateaux – typically wild and windswept, often with unenclosed tracts, running roughly north-south as ‘fingers’ parallel between intervening deep valleys.*
 - *Numerous steep-sided valleys - typically aligned in parallel, flowing in southerly directions, shaped by southward flowing glaciers, leaving behind distinctive corrie ('cwm') and crag features. Major rivers include the Tawe, Taff and Rhydney.*
 - *Ribbon urban and industrial areas in valleys – in places extending up valley sides and to valley heads. The area is sometimes regarded as being part of a ‘city region’. Middle and eastern valleys tend to be the most heavily and continuously developed, e.g Rhondda Valley. The uplands by comparison have little or no settlement.*
 - *Extensive remains of heavy industry – with a mix of derelict, preserved and largely redeveloped areas, notably for coal mining. Preserved as heritage (World heritage Site) at Blaenafon this typically includes old railway alignments, buildings and former tips.*
 - *Contrast of urban valley activity next to quiet uplands – e.g. busy roads, new developments, traffic noise, night lighting, verses the adjacent wilder, remoter, quieter uplands.*
 - *Large blocks of coniferous plantation and deciduous woodland fringes – covering many steep hillsides and hilltops, most notably in the middle to western portion of the area, providing a softer contemporary landscape where there was once industry.*
 - *Heather, rough grassland and steep bracken slopes – dominate many plateaux and are grazed mainly by sheep. Much is common land.*
 - *Improved pastures on some lower valley sides - grazed by sheep and some dairy cattle.*
 - *Field boundaries - dry stone walls mark the boundary of common land while fields on lower slopes are bounded by dense hawthorn hedges, interspersed with swathes of broadleaved woodland.*

- *Transport routes restricted to valleys – the intervening topography makes valley to valley travel difficult, except at heads and bottoms of valleys. Occasionally there are roads that climb steeply over passes with dramatic views and ‘hair pin’ bends.*
- *Iconic cultural identify – many popular images of a tough, rugby-playing, religious, radically-minded society still remain associated with the South Wales Valleys, however today’s post-industrial, internet-connected reality is somewhat different.”*

6.5.8 The distribution of the host and other NLCAs within the LVIA study area is shown in **Figure 6.6**.

LANDMAP

Introduction

6.5.9 The selection of LANDMAP Aspect Areas to be included in the LVIA has been carried out in accordance with the methodology provided in *Using LANDMAP in Landscape and Visual Impact Assessments GN46*¹¹. The filtering process described within GN46¹¹ is recorded in **Appendix 6B**. Detailed schedules of the attributes of each LANDMAP Aspect Area alongside a landscape sensitivity assessment which considers both value and susceptibility in accordance with GLVIA3 is included for each aspect in **Appendices 6C – 6G**.

Geological Landscapes Aspect Areas (GLAAs)

6.5.10 The filtering process outlined in *GN46*¹¹ and recorded in **Appendix 6B** identified two GLAAs to be considered further in the assessment as follows:

- BLNGWGL013 Mynydd Carn y Cefn; and
- BLNGWGL017 Cefn yr Arail.

6.5.11 The location and geographical extent of these GLAAs in relation to Site boundary and the hub and blade tip ZTVs is shown on **Figure 6.7** and a baseline description of the GLAAs is included in **Appendix 6C**.

Landscape Habitats Aspect Areas (LHAAs)

6.5.12 The outcome of the filtering process recorded in **Appendix 6B** (as outlined in *GN46*¹¹) identified four LHAAs to be considered further in the assessment as follows:

- BLNGWLH074;
- BLNGWLH082;
- BLNGWLH084; and
- BLNGWLH085.

6.5.13 A baseline description of the four LHAAs is included in **Appendix 6D** whilst the location of these LHAAs in relation to Site boundary and the hub and blade tip ZTVs is shown on **Figure 6.8**.

Visual and Sensory Aspect Areas (VSAAs)

6.5.14 The filtering process outlined in *GN46*¹¹ and recorded in **Appendix 6B** identified 40 VSAAs to be considered further in the assessment as follows:

- BLNGWVS119 Mynydd Pen-y-fan
- BLNGWVS226 St. Illtyd
- BLNGWVS307 Carno forest
- BLNGWVS352 Trefil
- BLNGWVS399 Mynydd Llangynidr
- BLNGWVS404 Ebbw/Ebbw Fach valley
- BLNGWVS542 Garden Festival
- BLNGWVS688 Mynydd Bedwellte
- BLNGWVS713 Sirhowy, Ebbw Fawr and Ebbw Fach valley
- BLNGWVS808 Cwm Tyleri
- BLNGWVS985 Lower Ebbw valley
- BRCKNVS372 Mynydd Llangynidr and Mynydd Llangattock
- BRCKNVS660 Black Mountains
- BRCKNVS833 Brecon Beacons
- BRCKNVS858 Mynydd Llangorse
- CRDFFVS004 Garth Hill
- CYNONVS129 Mynydd Y Grug
- CYNONVS142 Mynydd y Glyn
- CYNONVS317 Mynydd Eglwysilon and Mynydd Meio
- CYNONVS352 Bryn-oeer Patch
- CYNONVS361 Rhoslas
- CYNONVS404 Gelligaer Common
- CYNONVS605 Cefn Y Brithdir
- CYNONVS735 Cadair Fawr
- CYNONVS854 Mynydd Y Lan
- MNMTHVS008 Glangattwg Mountain
- MNMTHVS010 Mynydd Garnclochdy
- MNMTHVS016 Cilfeigan Park and Woodlands
- MNMTHVS018 Llangeview
- MNMTHVS085 Llandegfedd Reservoir
- MRTHRVS858 Gelligaer Common
- MRTHRVS917 Merthyr West Flank
- NWPRTVS030 Kemeys Graig
- TRFNVS013
- TRFNVS014
- TRFNVS019
- TRFNVS022
- TRFNVS024
- TRFNVS027
- TRFNVS033

6.5.15 The location of these VSAAs in relation to Site boundary and the hub and blade tip ZTVs is shown on **Figure 6.9** at a scale of 1:100,000 whilst the outer VSAAs within the LVIA study area are shown in **Figure 6.10** at a scale of 1:200,000. A description of each of the VSAAs is set out in **Appendix 6E**.

Historic Landscape Aspect Areas (HLAAs)

6.5.16 The outcome of filtering process outlined in *GN46*¹¹ and recorded in **Appendix 6B** identified 60 HLAAs to be considered further in the assessment as follows:

- BLNGWHL001 HAA 1 Trefil Ddu
- BLNGWHL002 HAA 2 Nant Trefil Quarry
- BLNGWHL005 HAA 3 Trefil
- BLNGWHL006 HAA 6 Ebbw Vale
- BLNGWHL008 HAA 8 Mynydd Carn y Cefn Fieldscape
- BLNGWHL009 HAA 9 Brynmawr
- BLNGWHL010 HAA 10 Clydach Fieldscape North
- BLNGWHL012 HAA 12 Nantyglo
- BLNGWHL016 HAA 16 Tredegar
- BLNGWHL021 HAA 21 Ebbw Vale (East Side)
- BLNGWHL022 HAA 22 Mynydd Carn y Cefn
- BLNGWHL025 HAA 25 Mynydd Coety
- BLNGWHL026 HAA 26 Rhymney Hill
- BLNGWHL029 HAA 29 Cefn Manmoel
- BLNGWHL034 HAA 34 Cwmtillery
- BLNGWHL035 HAA 35 Abertillery
- BLNGWHL036 HAA 36 Mynydd Bedwellte
- BLNGWHL037 HAA 37 Maes Mawr
- CYNONHL556 Mynydd Bach and Mynydd-y-Grug
- CYNONHL558 Cwm Dows and Cwm Philkins
- CYNONHL580 Mynydd-y-glog & Cefn Cadlan
- CYNONHL602 Nant Bargod Rhymni
- CYNONHL634 Gelligaer and Llancaich
- CYNONHL660 Blackwood and the Sirhowy Valley
- CYNONHL687 Rhondda Uplands
- CYNONHL831 Gelligaer Common
- CYNONHL833 Llanwonno and Cwm Clydach
- CYNONHL878 Mynyddau Eglwysilian a Meio
- CYNONHL993 Mynydd Meio
- MNMTHHL051 Gaer-fawr: Escarpment and Hinterland
- MNMTHHL053 Tregrug - Llanhunog
- MNMTHHL058 Wentwood Forest (surviving)
- MNMTHHL070 Usk Castle Park
- MNMTHHL080 Tredunnoch

- BLNGWHL038 HAA 38 Cwm
- BLNGWHL041 HAA 41 Hafod y dafal
- BLNGWHL044 HAA 44 St Illtyd Fieldscape
- BLNGWHL045 HAA 45 Llanhilleth
- BRCKNHL133 Mynydd Llangynidr
- BRCKNHL567 Mynydd Llangorse
- BRCKNHL642 Black Mountains
- BRCKNHL829 Bannau Brycheiniog
- CRDFFHL005 Garth Upland
- CYNONHL004 Pen-y-fan Industrial Estate
- CYNONHL005 Cefn y Brithdir
- CYNONHL006 Penmoelallt
- CYNONHL290 Llanfabon and Llanbradach
- CYNONHL374 Twmbarlwm and Medart
- CYNONHL426 Maes Manor Hotel
- CYNONHL465 Ebbwy Settlement Corridor
- MRTHRHL006 HL006 Cwm-glo and Bryn-y-Badell
- MRTHRHL009 HL009 Pen March
- MRTHRHL011 HL011 Mynydd Merthyr and Mynydd Gethin
- MRTHRHL013 HL013 Cwm Cothi
- MRTHRHL015 HL015 Gelligaer Common (west)
- NWPRTL009 Wentwood Forest
- TRFNHL011 HL011 Pontypool Park
- TRFNHL014 HL014 Mynydd Garnlochdy
- TRFNHL018 HL018 Glyn Trosnant and Hafod-yr-Ynys
- TRFNHL019 HL019 Waun-wen and Mynydd Llanhilleth

6.5.17 **Appendix 6F** contains baseline descriptions of each of the 61 HLAAs. **Figure 6.11** illustrates the location of these HLAAs in relation to Site boundary and the hub and blade tip ZTVs at a scale of 1:100,000 whilst the outer HLAAs within the LVIA study area are shown in **Figure 6.12** at a scale of 1:200,000.

Cultural Landscape Services Aspect Areas (CLSAs)

6.5.18 The filtering process outlined in *GN46*¹¹ and recorded in **Appendix 6B** identified six CLSAs to be considered further in the assessment as follows:

- BLNGWCLS018 Ebbw/Ebbw Fach valley;
- BLNGWCLS030 Sirhowy, Ebbw Fawr and Ebbw Fach valley;
- BLNGWCLS032 Sirhowy, Ebbw Fawr and Ebbw Fach valley;
- BLNGWCLS034 Hafod-y-dafel/Arail;
- BLNGWCLS035 Hafod-y-dafel/Arail; and
- BLNGWCLS058 Clydach valley.

6.5.19 The location of these CLSAs in relation to Site boundary and the hub and blade tip ZTVs is shown on **Figure 6.13** with a description of each of the CLSAs included in **Appendix 6G**.

Nationally designated landscapes

6.5.20 The following internationally and nationally designated landscapes fall wholly or partly within the study area:

- Blaenavon Industrial Landscape World Heritage Site; and
- Brecon Beacons National Park.

6.5.21 With respect to the Blaenavon Industrial Landscape World Heritage Site, the baseline and subsequent assessment of effects is contained within **Chapter 7: Historic Environment**.

The location of the Brecon Beacon National Park and its relationship to the blade tip ZTV of Mynydd Carn y Cefn Wind Farm is shown on **Figure 6.14**.

Brecon Beacons National Park

Special Qualities

6.5.22 A *Management Plan for the Brecon Beacons National Park 2015-2020*¹⁸ sets out the special qualities of the National Park with descriptions refined and placed into categories in the *Future Beacons, The Management Plan for the Brecon Beacons National Park 2022-2027, Consultation Draft*¹⁹. The most up-to-date descriptions of the special qualities are as follows:

- *“Special Landscapes:*
 - ▶ *Sweeping grandeur and outstanding natural beauty: The Park’s sweeping grandeur and outstanding natural beauty observed across a variety of harmoniously connected landscapes, including marvellous gorges and waterfalls, classic karst geology with caves and sink holes, contrasting glacial landforms such as cliffs and broad valleys carved from old red sandstone and prominent hilltops with extensive views in all directions. A landscape that provides a sense of time depth and timelessness.*
 - ▶ *Contrasting patterns, colours, and textures: A working, living “patchwork” of contrasting patterns, colours, and textures comprising well-maintained farmed landscapes, open uplands, lakes and meandering rivers punctuated by small-scale woodlands, country lanes, hedgerows and stone walls and scattered settlements.*
 - ▶ *Rugged, remote and challenging: In the context of the UK, geographically rugged, remote and challenging landscapes.*
- *Special People:*
 - ▶ *Intimate sense of community: An intimate sense of community where small, pastoral towns and villages are comparatively safe, friendly, welcoming and retain a spirit of cooperation.”*
 - ▶ *Sense of place and cultural identity: A sense of place and cultural identity - “Welshness” - characterised by the indigenous Welsh language, religious and spiritual connections, unique customs and events, traditional foods and crafts, relatively unspoilt historic towns and villages, family farms and continued practices of traditional skills developed by local inhabitants to live and earn a living here, such as common land practices and grazing.*
- *Special Experiences:*
 - ▶ *Enjoyable and accessible: Enjoyable and accessible countryside with extensive, widespread and varied opportunities to pursue walking, cycling, fishing, water-based activities and other forms of sustainable recreation or relaxation.*
 - ▶ *Sounds, sights, smells and tastes: A feeling of vitality and wellbeing that comes from enjoying the Park’s fresh air, clean water, rural setting, open land and locally produced foods.*

- ▶ *Sense of discovery: A sense of discovery where people explore the Park's hidden secrets and stories such as genealogical histories, prehistoric ritual sites, relic medieval rural settlements, early industrial sites, local myths and legends and geological treasures from time immemorial.*
- ▶ *Peace, tranquillity and dark skies: A National Park offering dark night time skies, peace and tranquillity with opportunities for quiet enjoyment, inspiration, relaxation and spiritual renewal.*
- *Special Nature:*
 - ▶ *Diversity of wildlife and richness of seminatural habitats: Extensive and widespread access to the Park's diversity of wildlife and richness of semi-natural habitats, such as native woodlands, heathland and grassland, natural lakes and riparian habitats, ancient hedgerows, limestone pavement and blanket bogs including those of international and national importance."*

Landscape Character

6.5.23 The *Brecon Beacons National Park Landscape Character Assessment*¹⁶ defines 15 Landscape Character Areas (LCAs) within the National Park, six of which coincide with the ZTV as shown in **Figure 6.15** as follows:

- LCA 3: Fforest Fawr;
- LCA 7: Central Beacons;
- LCA 8: Talybont and Taff Reservoir Valleys;
- LCA 9: Mynyddoedd Llangatwg and Llangynidr;
- LCA 12: Skirrid and Sugar Loaf;
- LCA 13: The Black Mountains; and
- LCA 15: Bloreng Hill and Slopes.

6.5.24 On the basis that potential effects on these landscapes would be limited to indirect effects on the key visual or perceptual characteristics of these landscapes, resulting from views of wind turbines. the baseline description below has concentrated upon those distinctive characteristics, special qualities, sensitivities, and management strategies most likely to be altered as a consequence of the Project. A complete list of the distinctive characteristics of each LCA as defined in the extant *Brecon Beacons National Park Landscape Character Assessment*¹⁶ is included in the landscape assessment tables for the LCAs included in **Appendix 6H**.

6.5.25 LCA 3: Fforest Fawr: The pertinent distinctive characteristic of this LCA is "An elevated, simple and expansive landscape, with colours and textures varying subtly with the underlying geology. Much of the LCA remains inaccessible except on foot, giving a sense of tranquillity, remoteness and relative wildness." ¹⁶

6.5.26 Amongst its special qualities, the published Profile for LCA 3 states (under the Scenic quality and Sense of place criteria) that this is a "High scenic quality and a strong sense of

place, particularly where there are views of distinctive summits and over surrounding lower land to provide a landscape context." ¹⁶ It also notes under the Perceptual qualities criteria that the area displays "High tranquillity, resulting from many factors including openness, perceived naturalness, low noise (though roads have localised impacts at the periphery of the LCA), landform and dark skies (this LCA is within the BBNP core dark skies area)" ¹⁶. It continues "The LCA's inaccessibility, openness, timelessness and relative lack of human influence also contribute to its sense of relative wildness." ¹⁶

- 6.5.27 Sensitivities include "Visual impacts, noise and night-time light pollution associated with developments beyond the National Park boundary" ¹⁶ whilst LCA-Specific Management Guidelines seek to "Protect the undeveloped character of the landscape, and its special qualities including tranquillity, remoteness, and dark night skies" and "Protect the views to and from the National Park which are integral to its setting" ¹⁶.
- 6.5.28 LCA 7: Central Beacons: Amongst the distinctive characteristics of this LCA are the ones relating to "Very little settlement or other development within this LCA. However, views from the area encompass the surrounding settled landscape. The A470 follows the western boundary of the LCA" and "An open, expansive landscape with a sense of airy spaciousness and of being 'on the top'." ¹⁶
- 6.5.29 Special qualities relating to Scenic quality/Sense of place and Perceptual qualities include the LCA having "exceptionally high scenic quality and a strong sense of place resulting from its elevation, dramatic and distinctive topography, and panoramic views." and "High levels of tranquillity due to the landscape's openness, perceived naturalness, low noise and dark skies (the LCA is within the BBNP core dark skies area). There are few detracting features in terms of human development..."¹⁶. The corresponding pertinent sensitivity relates to "Development within or outside the LCA which impacts on views from summits.....".¹⁶
- 6.5.30 LCA 8: Talybont and Taff Reservoir Valleys: This LCA abuts the southern boundary of the National Park near Merthyr Tydfil. It is characterised by its reservoirs, surrounded by steep sided, dark green forested valleys with more open ridges of upland moorland which have long views across the reservoirs and their surrounding forests located between the reservoir valleys. Sensitivities to its special qualities includes "Changes in the composition of the landscape and views from the area" ¹⁶ in relation to scenic quality and, with regard to perpetual qualities, the "Loss of tranquillity as a result of visually intrusive/ audible developments beyond the National Park boundary." ¹⁶
- 6.5.31 LCA 9: Mynyddoedd Llangatwg and Llangynidr: The pertinent distinctive characteristic of this landscape relates to the "Very limited settlement, but views to settlement in the Usk valley to the north, and other development (e.g. roads, pylons) beyond the southern boundary of the National Park".¹⁶
- 6.5.32 Its special qualities include (under the perceptual qualities criteria) "An exceptionally open and exposed landscape. Its landform, and absence of settlement and development give it a sense of tranquillity, remoteness and relative wildness in parts, despite its proximity to settlements to the south. The western part is within the BBNP core dark skies area" ¹⁶ with a corresponding sensitivity of "Proximity to settlement and development to the south mean that perceptual qualities are sensitive to new development (including beyond the National Park boundary)". ¹⁶ Under the Scenic quality and Sense of place criteria, special qualities are listed as "Scenic quality and sense of place resulting from combination of openness,

landform, moorland vegetation, archaeology and views to distinctive skylines in other LCAs"¹⁶ with sensitivities relating to *"Inappropriate development, (including outside the National Park) which affects skylines and/or views."*¹⁶ The LCA-Specific Management Guidelines continue with these themes and include guidelines to *"Protect the undeveloped character of the open moorland landscape, and its qualities of tranquillity, relative wildness and dark night skies which exist despite its proximity to centres of population"*¹⁶ and *"Protect the long views from the area, including those southwards to land outside the National Park"*¹⁶.

- 6.5.33 LCA 12: Skirrid and Sugar Loaf: This relatively small LCA is located on the eastern edge of the National Park. Whilst it's defined distinctive characteristics do not relate specifically to views, tranquillity or remoteness, under a separate *key views* heading, the assessment notes *"Key views within the LCA are those from the summits of Sugar Loaf and Skirrid, which are strongly influenced by surrounding LCAs..."*¹⁶ Pertinent sensitivities to landscape changes include *"Visually-intrusive development in surrounding areas affecting views"*¹⁶ and *"Loss of tranquillity as a result of visible or audible development in surrounding areas."*¹⁶
- 6.5.34 LCA 13: The Black Mountains: This large LCA is largely defined by its topography and includes the highest land associated with the Black Mountains. It is a LCA which features *"High scenic quality and a strong sense of place, resulting from [amongst other criteria] its elevation, panoramic views..."*¹⁶ as one of its special qualities. Corresponding sensitivities therefore include *"Development within this LCA and surrounding areas affecting views, particularly from higher land."*¹⁶ One of the LCA-specific management guidelines seeks to *"Protect the open character of the ridges, their unbroken skylines and qualities of tranquillity, remoteness and relative wildness"*¹⁶.
- 6.5.35 LCA 15: Bloreng Hills and Slopes: This is a *"very lightly-settled landscape, with scattered farms increasing in density towards the east of the LCA"*¹⁶. Other distinctive characteristics relate to the high plateau of the Bloreng which *"is easily accessible by car (B4246) and the public can enjoy panoramic views from the high car park"*¹⁶.
- 6.5.36 Special qualities include the *"high scenic quality"* with an accompanying sensitivity which relates to the *"Introduction of visually-intrusive features into views."*¹⁶ LCA-Specific Management Guidelines include guidelines to *"Protect the long views from the area, including those to land outside the National Park."*¹⁶ One of the LCA-specific management guidelines seeks to *"Protect the upland skylines and occasional long views which form the backdrop to the area."*¹⁶

Locally designated landscapes

- 6.5.37 The following locally designated landscapes are entirely or partly located within 10km of the boundary of the Site and coincide with the hub height and blade tip ZTVs:
- Blaenau Gwent Special Landscape Areas (SLAs):
 - ▶ Eastern Ridge and Mynydd James;
 - ▶ Cwm Tyleri and Cwm Celyn;
 - ▶ Mynydd Carn y Cefn and Cefn yr Arail;
 - ▶ Mynydd Bedwellty, Rhymney Hill and Sirhowy Valley;

- ▶ Cefn Manmoel;
- ▶ Trefil and Garnlydan Surrounds;
- ▶ Beaufort Common; and
- ▶ St. Illtyd Plateau and Ebbw Eastern Sides.
- Torfaen SLAs:
 - ▶ Western Uplands
- Caerphilly SLAs:
 - ▶ Upper Rhymney Valley;
 - ▶ Gelligaer
 - ▶ Mynydd Eglwysilian; and
 - ▶ Mynyddislwyn.
- Caerphilly Visually Important Local Landscapes (VILLs):
 - ▶ Northern Rhymney Valley;
 - ▶ Manmoel; and
 - ▶ Abercarn.

6.5.38 The locations of these areas are shown on **Figure 6.16** in relation to the hub height and blade tip ZTVs for the proposed Mynydd Carn y Cefn Wind Farm.

Blaenau Gwent CBC SLAs

Eastern Ridge and Mynydd James

6.5.39 The extensive Eastern Ridge and Mynydd James SLA lies to the east of the Proposed Development Site. All of the open land of the eastern ridge, and its slopes to the Ebbw Fach valley (excluding Cwm Tyleri and Cwm Celyn) are included within the SLA. There are three main landscape types within this area:

- *"the large majority is open upland common land, in places extending down the valley sides as well as over the ridges, and rising to the highest point in Blaenau Gwent on Coity Mountain.*
- *The remainder of the Ebbw Fach valley sides are a mosaic of woodland and fields as well as areas of tips and past workings.*
- *The northern slopes, overlooking the Heads of the Valleys and Brynmawr, are a mix of open hillsides and fields, pockmarked with past tipping and extraction."*²³

6.5.40 There are five primary landscape qualities and features (as defined in the Statement of Value²³) identified for the Open upland part²³ of this SLA, three for the Valley sides and a further three for the Northern slopes. On the basis that this SLA lies outside of the Site boundary and as a consequence, could sustain no direct landscape effects, only one of

these 11 primary landscape qualities and features is pertinent to the LVIA and relates to "Remote and bleak in contrast to adjacent valley, with panoramic and distant views, and forming distinctive and remote skylines."²³

Cwm Tyleri and Cwm Celyn

6.5.41 The two separate areas of this SLA which encompass the south-flowing side valleys of the Ebbw Fach, are enclosed by the upland of the Eastern Ridge and Mynydd James SLA. Although separate, they consist of a single landscape type which comprises enclosed valley sides, primarily fields, with areas of woodland whilst Cwm Tyleri also includes areas of reclaimed land and lakes. Of the five primary landscape qualities and features cited in the Statement of Value²³, two are of relevance and may potentially be indirectly affected by the Proposed Development as follows:

- "Strong rural character, with lack of industrial activity evident (except reclaimed tips in Cwm Tyleri).
- Hidden, 'tucked away' quality."²³

Mynydd Carn y Cefn and Cefn yr Arail

6.5.42 This SLA encompasses the main north-south ridge in the centre of Blaenau Gwent, between the Ebbw Fawr and Ebbw Fach valleys. It is the host SLA of the Proposed Development and features four main landscape types:

- A central open upland ridge, noted in the need criteria under 'prominence' as forming a "prominent skyline from both valleys"²³. It is also recorded under the 'unspoilt' criteria that the main length of the upland ridge is away from any evidence of industrialisation.
- The steep Ebbw Fawr and Ebbw Fach valley sides, comprising a mix of open land, reclaimed land and tips, quarries and rough ground.
- The northern slopes overlooking the Heads of the Valleys which contain a mix of fields, un-reclaimed tips and recreational uses.
- The southern end which encompasses the lower parts of the ridge and comprises fields with dense forestry on the adjacent steep valley sides. This area is noted in the need criteria under 'prominence' as being prominent from the southern approach up the Ebbw valley. It is also noted under the 'unspoilt' criteria as having areas of old fields which are undisturbed.

6.5.43 The Proposed Development would primarily be concentrated across the *southern end* with the northern part of the scheme (turbine 1) extending into the *open upland ridge* landscape type. The primary landscape qualities and features cited in the Statement of Value²³ which are of most relevance the LVIA are as follows:

- "Open upland ridge:
 - ▶ Distinctive open skyline seen from valleys on either side;
 - ▶ Panoramic views across to other ridges; and

- ▶ *All open land is cSINC with mosaic habitat – heathland, acid grassland, mire and oak woodland, LBAP habitat – purple moor grass and rush pasture, upland oak woodland, beech and yew woodland, dwarf shrub heath and blanket bog."*
- *"Southern end:*
 - ▶ *Distinctive forked 'stop-end' to ridge;*
 - ▶ *Well-preserved pattern of pre-industrial farmland of small rectangular fields with distinctive stone walls and overgrown beech hedges, similar to those around St. Illtyd across the valley.*
 - ▶ *Steep densely forested sides gives very enclosed character to valley*
 - ▶ *Some unimproved grassland habitats on tops, including four cSINC areas of acid grassland, LBAP habitats."*²³

Mynydd Bedwellty, Rhymney Hill and Sirhowy Valley

- 6.5.44 This SLA covers a north-west to south-east ridge and valley sides between the Sirhowy and the Rhymney valleys. There are three main landscape types in this area; Rhymney Hill and Mynydd Bedwellty which form the open upland ridge; the steep east-facing sides of the Sirhowy valley, which primarily comprise of open land, with disused quarries and areas of tips and the shallow side valley of Cwm Tysswg with its fields in the western part of the SLA.
- 6.5.45 On the basis that this SLA lies outside of the Site boundary and as a consequence, could sustain no direct landscape effects, only one of 12 primary landscape qualities and features listed in the Statement of Value²³ is pertinent to the LVIA. This relates to the *"Panoramic views across to other ridges to west, and north to Brecon Beacons, and into valley from Cefn Golau"*²³ which are associated with the open upland ridge. This area is recorded in the need criteria, under 'unspoilt', as being away from evidence of industrialisation.

Cefn Manmoel

- 6.5.46 The Cefn Manmoel SLA encompasses a north-west to south-east aligned ridge and sides located between the Sirhowy valley and the Ebbw Fawr. There are four main landscape types within this area as follows:
- the open upland ridge, extending from Hilltop southward to above Cwm;
 - the north-western slopes which overlook the Sirhowy Valley and are covered with a mix of planted woodland and open fields;
 - the eastern part which feature the steep Ebbw Fawr valley sides and have a varied profile and areas of tipping, quarrying, reclaimed land and open common land, as well as dense forestry in the south; and
 - the southern part of the ridge, a long slither of which is in this SLA, is covered with a distinctive field pattern relating to the old settlement of Manmoel and is referred to as the Manmoel Plateau.

- 6.5.47 Whilst this SLA lies adjacent to the Mynydd Carn y Cefn and Cefn yr Arail SLA, there would be no direct effects as a consequence of the Proposed development and effects would therefore be indirect. Whilst there are no primary landscape qualities and features cited in the Statement of Value²³ which are of relevance the LVIA, key policies and management include conserving the remoteness and tranquillity of the Manmoel Plateau.

Trefil and Garnlydan Surrounds

- 6.5.48 This area forms the northernmost part of Blaenau Gwent, comprising the lower slopes of the Brecon Beacons to the northern urban boundary of Tredegar. Three main landscape types are represented within the SLA; the majority of the area to the west and north is open upland common land whilst within the shallow valley of the upper Sirhowy there are patterns of fields. To the east, around Garnlydan, the large features of forestry and reservoirs dominate in a more varied landscape which includes the small valley of Cwm Carno, and areas of open upland.
- 6.5.49 A review of the 20 primary landscape qualities and features present across the SLA and within its constituent landscape types, indicates that those qualities and features of greatest relevance to the LVIA and most likely to be indirectly affected are as follows:
- *"Open upland:*
 - ▶ *Fine contrasting panoramic views, north to Pen-y-Fan, south across Heads of Valleys; and*
 - ▶ *Remote, large-scale, bleak and generally tranquil."*²³

Beaufort Common

- 6.5.50 This small SLA is representative of the heads of the valleys land, consisting of one landscape type which covers an area of rounded hills, lower in elevation than those to the north and south. The land use is mainly rough pasture land, with open access to recent woodland in the west and areas of both reclaimed and un-reclaimed old tips, including areas of 'patches' of historic value.
- 6.5.51 Of the seven primary landscape qualities and features listed in the Statement of Value²³ for this SLA, only one is pertinent to the LVIA and potential indirect effects. This relates to the *"Panoramic views from high points, across heads of the valleys, down Clydach Gorge and to Brecon Beacons."*²³

St. Illtyd Plateau and Ebbw Eastern Sides

- 6.5.52 This SLA lies in the far south-eastern part of Blaenau Gwent and is continuous with the Eastern Ridge and Mynydd James SLA, their joint boundary being the extent of the enclosed farmland. The area consists of two distinct landscape types; the plateau, which is rare in Blaenau Gwent for being the only extensive area of enclosed farmland whilst to the west and south, the plateau drops away forming the steep, well-wooded Ebbw Fach valley sides, including several small side valleys. The entire SLA is largely undisturbed by industrialisation.

- 6.5.53 There are nine primary landscape qualities and features identified for this SLA (as defined in the Statement of Value²³). On the basis that this is not the host SLA and therefore could sustain no direct (physical) landscape effects, the only primary landscape quality and feature which is pertinent to the LVIA relates to *“Panoramic views especially west and south, to other plateau landscapes.”*²³

Torfaen CBC SLAs

Western Uplands

- 6.5.54 The Western Uplands is the closest of Torfaen’s SLAs to the Proposed Development and is centred on an area of uplands and upland agricultural landscapes to the west of Abersychan, Garndiffaith and Varteg. It’s Primary Landscape Quality and Features are recorded as:

*“An area of mixed landscapes including an open upland plateau which rises to 550 m AOD and includes the peaks of Brygwm, Waun Wen and Gwastad. This is dissected by a series of small valleys, more enclosed and vegetated with a regular pattern of small side fields bounded by hedgerows and walls and small areas of broadleaved woodland. The uplands have a vast, open character, mostly covered in dry heathland and acid grasslands but with a strong sense of place. As with much of the area, the SLA exhibits the impacts of post medieval industrial landscapes upon the post medieval agricultural landscape which results in the area being archaeologically sensitive.”*²⁸

Caerphilly CBC SLAs

Upper Rhymney Valley

- 6.5.55 The Upper Rhymney Valley SLA represents one of the most open upland areas within Caerphilly and forms a natural buffer zone to the adjacent Brecon Beacons National Park. Its Primary Landscape Qualities and features are recorded in Appendix 1 of the Caerphilly Local Development Plan³³ as follows:

- *“Cultural Landscapes*
 - ▶ *It is a simple, open landscape with a number of recent regeneration projects in the area, primarily in the form of the improved A465 corridor, which has both increased in scale and size.*
 - ▶ *An important example of industrial heritage, with areas of reclaimed land and spoil tips.*
 - ▶ *There are examples of various historic and contemporary human occupation and exploitation in the form of prehistoric monuments, redundant industrial workings and transport systems.*

³³ Caerphilly County Borough Council. (2010). Caerphilly County Borough Local Development Plan up to 2021. Appendices to the Written Statement. (Online). Available at: <https://www.caerphilly.gov.uk/CaerphillyDocs/LDP/Appendices-to-Written-Statement.aspx> (Accessed April 2022).

- *Landscape Habitats*
 - ▶ *Despite largish areas of improved grassland being present there are also large areas of valuable grassland present. There is a good mixture of marshy, neutral and acid grasslands.*
 - ▶ *Areas of semi-improved and unimproved grassland are fragmented within the wider improved grassland landscape. Uniform improved grassland is present resulting from reclamation of former mine workings.*
 - ▶ *Upland river corridor and enclosed upland pasture. Also riparian woodland / scrub.*
- *Geological Landscape*
 - ▶ *It exhibits the results of glaciation and forms the northern edge of the pennant sandstone outcrop that underpins the South Wales coalfield. With broad, moderately steep-sided valleys controlled by south-dipping mud dominated coal measures (upper carboniferous).*
 - ▶ *Valley floor contains alluvium and glacial sand /gravel.*
 - ▶ *Numerous derelict mine workings, shafts, adits, colliery waste tips and partially reclaimed opencast workings present within and immediately adjoining the landscape, which gives it a particularly industrial feel and character.*
- *Visual and Sensory*
 - ▶ *Strong visual links with the Brecon Beacons.*
 - ▶ *Views of the upland area are extensive and very open with minimal field boundaries and patterns. Adjacent upland areas dominate views into the landscape.*
 - ▶ *Strong underlying feel of industrial past. Industrial remnants include old railway sidings and earthworks.*
 - ▶ *Overhead pylons are visual detractors, and the A465 has both noise and movement impacts.*
 - ▶ *Area is currently predominantly used as rough grazing and agriculture.*
- *Historical Landscapes*
 - ▶ *An extensive area of unenclosed open moorland, forming the easternmost outline of Merthyr Common, which has remained relatively, unchanged since the 19th Century, in spite of encroachment by industrial extraction activity, in particular lime and ironstone quarries.*
 - ▶ *The area contains numerous water management features that form part of the extensive remains of Dowlais Free Drainage System. There are also quarries associated with the Dowlais Ironworks, which together with the water management features represent a significant concentration of 19th Century industrial water-management features of considerable historical importance."*

Gelligaer Common

6.5.56 The Gelligaer Common SLA lies to the west of the Proposed Development. The recorded Primary Landscape Qualities and Features of this SLA are as follows:

- *“Cultural Landscapes*
 - ▶ *The area is included in the Register of Special Historic Interest in Wales.*
 - ▶ *Gelligaer Common represents a rich and increasingly rare upland landscape in South East Wales, having numerous distinct foci of settlement representing continuity of land use from the prehistoric period to the recent past. The area includes: Bronze Age funerary and ritual monuments, a Roman fort and associated features including a Roman road and military practice camps; a mediaeval earthwork castle and a significant concentration of mediaeval platform houses which include some of the first examples of the type to be archaeologically investigated in Wales.*
 - ▶ *Upland valley with mix of past industrial remains and relics of local cultural importance.*
- *Landscape Habitats*
 - ▶ *Designated as common land, the majority of the area exhibits typical upland heath vegetation.*
 - ▶ *Unenclosed uplands comprising of unimproved acid grassland, wet dwarf shrub heath, wet heath / acid grassland mosaic flushes, open water, bracken, ephemeral / short perennials on spoil. Many of the fields are improved grassland.*
 - ▶ *Small field pattern, hedgerows with mature trees and patches of broadleaved woodland present, particularly in the south of the SLA. Japanese knotweed present.*
 - ▶ *There are a number of vegetation lined minor streams.*
- *Geological Landscape*
 - ▶ *Physically it is a characteristic glaciated upland landscape and includes, at its southern end, part of the fault bounded ‘col’, formed by glacial melt waters and linking the Taf and Rhymney Valleys. Today, this is used by the cross-valley B4254 road. Steep-sided valleys cut into South Wales pennant formation sandstones (Upper Carboniferous).*
 - ▶ *Valley floor contains alluvium and glacial sand / gravel; boulder clay in the form of hummocky moraine.*
- *Visual and Sensory*
 - ▶ *An open, extensive, exposed and an increasingly rare upland landscape in South East Wales. It has distinct visual and sensory characteristics with extensive views over the coalfield plateau and up to the Brecon Beacons. Rock outcrops impart a strong upland character tempered by urban presence to south of area. Dramatic views all around with stonewalls being the predominant boundary treatment.*

- ▶ *The landscape exhibits numerous examples of continuity of land use from prehistoric times, rough grazing and bracken and scattered rural farms. Sheep and horses grazing present throughout the whole of the area.*
- ▶ *The eastern flank of the SLA is typified by more rolling landscape pattern interspersed with woodland blocks, spinneys and hedgerows.*
- ▶ *Wind noise is a dominant factor, which evokes particular experience of exposure and wildness. Noise and movement is more noticeable within a generally quiet landscape.*
- *Historical Landscapes*
 - ▶ *The landscape of Gelligaer common represents an increasingly rare survival in South East Wales of an extensive area of high upland moor rich with an exceptionally rich and diverse archaeological heritage, demonstrating a long continuity of human activity and occupation.*
 - ▶ *The lower areas are characterised by extensive, well preserved irregular and enclosed upland landscape, dominated by significant remains of medieval / post-medieval agricultural settlement and later 19th – 20th century industrial extractive activity.”³³*

Myyddislwyn

- 6.5.57 This SLA comprises a small, open upland area surrounded by extensive plantations. Its designation recognises the importance of open moorland features in this part of Caerphilly and the quality of its associated landscape habitats.
- 6.5.58 Its Primary Landscape Qualities and features are as follows:
- *“Cultural Landscapes*
 - ▶ *The area contains examples of historic and contemporary human occupation and exploitation in the form of prehistoric monuments, redundant industrial workings, transport systems and forestry.*
 - *Landscape Habitats*
 - ▶ *Significant habitats in the SLA include; coniferous woodland, semi natural broadleaved woodland, acid grassland, neutral grassland, marshy grassland, improved grassland, upland heathland, dry heath and bracken. Presence of ancient woodland on the higher slopes of the SLA.*
 - ▶ *Presence of European Protected Species, UK Protected Species, LBAP species and habitats.*
 - ▶ *Hedgerows are the primary boundary treatment, with significant examples present throughout the SLA.*
 - ▶ *Stock grazing and tree felling are the main land management activities.*
 - *Geological Landscape*
 - ▶ *Steep sided South Wales pennant (upper carboniferous) valleys with Boulder clay, glacial sands / gravel and alluvium in valley floor.*

- ▶ *Disused sandstone quarries, closed colliery shafts and waste tips present.*
- *Visual and Sensory*
 - ▶ *A relatively small, but distinct landscape unit formed by the open, upland ridge of Mynydd y Lan to the north of Cwmfelinfach and west of Abercarn. It represents a key open upland area in a fairly intensively developed part of the borough, which has not totally been given over to commercial forestry plantations, such as further east at Cwmcarn and Coed Medart.*
 - ▶ *The open ridge is surrounded on two sides by plantations covering the steep valley sides, which form a distinctive backdrop to the settlements on the valley floors.*
 - ▶ *It also includes the more enclosed agricultural area of Mynydd Islwyn, which is a mixture of rough pasture and grazing land.*
- *Historical Landscapes:*
 - ▶ *A large and reasonably well-preserved irregular rural fieldscape of post-medieval date, which has survived largely intact in spite of encroachment by 20th Century quarrying activity.*
 - ▶ *Extensive 20th century quarrying activity along the Sirhowy and Ebbw valley has taken place, which has ultimately distracted from the overall coherence of the landscape.*
 - ▶ *An extensive, relatively well-preserved tract of open moorland is also present at Mynydd y Lan, which has remained largely intact, although much of the semi-natural woodland has been superseded by modern forestry and there is currently a modest record of archaeological remains recorded in this particular area.”³³*

Caerphilly CBC VILLs

6.5.59 VILLs are non-statutory designations that seek to protect the distinctive features or characteristics of the visual and sensory landscape of Caerphilly County Borough and how people perceive and respond to the landscape. VILLs have been identified using only the visual and sensory layer of LANDMAP.

Northern Rhymney Valley

6.5.60 The Northern Rhymney Valley VILL abuts the Upper Rhymney and Gelligaer SLAs and comprises two separate areas of landscape separated by the urban development of Abertyswg. The Primary Landscape Qualities and Features are recognised as:

- *“The visual character of the VILL is a predominantly upland and open area. Distinctive rocky hillside with rock outcrops, upper valley sides and views across the Rhymney valley give it a strong upland character, occasionally limited by topography and/or vegetation.*
- *The upland sense of place is complicated by urban edges and visual detractors (pylons) but increases with elevation and views out. Stonewalls are the usual boundary treatment in the area.*

- *Surrounding the VILL is a complex mix of broadleaf/coniferous woodland. Adjacent to the Nant Bargod Rhymni, Parc Cwm Darran is a very scenic area with high quality traditional buildings and good facilities in excellent repair.*
- *Scattered rural settlements and farms are the predominant built form in the area. Evidence of industrial and mining throughout the VILL.*
- *Wind noise is a dominant sensory feature, which evokes particular experiences of exposure and wildness on the upland areas.”³³*

Manmoel

6.5.61 The Primary Landscape Qualities and Features of the Manmoel VILL are as follows:

- *“The VILL is predominantly an upland landscape with a strong sense of openness. The Upland feel of the landscape increases with elevation as views increase in quality. The upland area is characterised by rough grassland with scattered woodland, hedgerows and narrow lanes and affords views down valleys and to plantation woodland. Manmoel Common falls within this upland area and is characterised by the same landscape qualities. This upland area forms the northern tip of the VILL.*
- *It is generally a rolling hilly landscape with a distinctive field pattern/ mosaic of grown-out beech hedging and typical stonewalls. The conditions of the boundaries are poor but the former gives the impression of dense woodland from outside the area and has a strong, sculptural quality. Unsympathetic division into paddocks is threatening the existing field patterns.”³³*

Abercarn

6.5.62 The Primary Landscape Qualities and Features of the Abercarn VILL are as follows:

- *“The VILL includes Mynydd Maen and Mynydd Llwyd and consists of an upland area of ridges and valleys, much of which consists of a woodland mosaic of conifers (providing winter greenery) and mixed woodland, giving a sense of enclosure.*
- *Some views are restricted by forestry but open ridgelines afford views across adjacent wooded valleys. Coniferous plantation flanks areas of heath (which provide autumn colour) and grassland.*
- *The visual values of these aspects are, in part, dependent upon the contrast with each other. Visual detractors (vertical elements including pylons) on the open ridgeline have reduced the visual and sensory evaluations for both.”³³*

Visual receptor baseline

6.5.63 The visual assessment draws upon the visual receptor baseline informed by the ZTVs, desk study, field survey and viewpoint analysis. The detailed analysis of viewpoints is used to guide the assessment of visual receptors.³⁴ The baseline establishes the receptors that are scoped into the assessment and are taken forward to the assessment stage where the

³⁴ IEMA Quality Mark Article. Use of Viewpoint Analysis as a tool in Landscape and Visual Impact Assessment (LVIA). (2016).

potential visual effects on views and visual amenity likely to be experienced by receptors (people) within the Study Area are assessed from the following receptor groups:

- Views from settlements within the Study Area and in addition views from scattered residential properties outside settlements within 2km of the proposed turbines undertaken as part of a Residential Visual Amenity Assessment (RVAA) where there is likely to be the highest magnitude of change upon views from residential properties;
- Views experienced whilst travelling through the landscape (road users, walkers, horse riders and cyclists for example); and
- Views from tourist and recreational destinations.

Visual receptors: Settlements

6.5.64 The assessment of visual effects likely to be experienced from settlements/communities includes consideration of residential areas, the public realm, and public open spaces within the settlement boundaries that would be frequented by people.

6.5.65 For people in their communities, the LVIA study area exhibits the broad settlement pattern that is present across much of 'the Valleys' area of south Wales. This pattern is of periodic dense settlements on some sections of valley bottom or lower valley sides but limited settlement in more elevated areas. As occurs in the upper sections of the Ebbw Fawr and Fach Valleys, individual valley floor settlements can amalgamate with one another to result in a continuous area of settlement extending along several kilometres of a valley and/or into side valleys. There are a limited number of residential properties located outside these valley floor settlements, a good proportion of which are, or at least were, originally farmsteads. Within the Site Hafod-y-dafal (which is no longer inhabited) and Arail are examples. Review of Ordnance Survey mapping shows that in some southern parts of the LVIA study area where the ridgelines and uplands that separate the valleys are less elevated, there is a tendency for more individual residential properties or hamlets to be present outside of the dominant valley settlements.

6.5.66 Settlements within the LVIA study area that are overlapped in full or part by the hub ZTV are as follows:

- Settlements within 10km:
 - ▶ Abertillery;
 - ▶ Aberbeeg;
 - ▶ Cwm;
 - ▶ Brynithel;
 - ▶ Llanhilleth;
 - ▶ Manmoel;
 - ▶ Trinant/Pen-twyn;
 - ▶ Blaina;

- ▶ Ebbw Vale;
- ▶ Markham;
- ▶ Swffryd;
- ▶ Crumlin;
- ▶ Nantyglo;
- ▶ Tredegar;
- ▶ Blackwood;
- ▶ Newbridge;
- ▶ Brynmawr;
- ▶ Abercarn;
- ▶ Pontllanfraith;
- ▶ Bargoed;
- ▶ Tir-y-berth;
- ▶ Rassau;
- ▶ Pontypool;
- ▶ Penpedairheol;
- ▶ Hengoed and Cefn Hengoel;
- ▶ Gelligaer and Penybryn; and
- ▶ Maesycwmmmer;
- Settlements between 10-15km:
 - ▶ Ystrad Mynach;
 - ▶ Crosskeys and Pontywaun;
 - ▶ Nelson;
 - ▶ Treharris;
 - ▶ Llanbradach;
 - ▶ Caerphilly;
- Principal Settlements between 15-26km:
 - ▶ Usk;
 - ▶ Merthyr Tydfil; and
 - ▶ Pontypridd;

- 6.5.67 A Residential Visual Amenity Assessment (RVAA) has been undertaken to assess the effects on residential visual amenity likely to arise as a result of the Proposed Development. Residential properties within 2km of the Proposed Development that are overlapped by the blade tip ZTV, where the highest magnitude of change has the potential to occur, have been considered in the assessment and are shown on **Figure 6.17**. The RVAA is reported in **Appendix 6K**.

Visual receptors: recreational routes and destinations

- 6.5.68 The LVIA study area includes a wide range of visual receptors undertaking outdoor recreational activities where the availability of views and their composition are likely to contribute to receptors' enjoyment of their activity. Recreational receptors within the blade tip ZTV have been identified under the following categories:
- Designated long distance footpaths within the LVIA Study Area;
 - Sustrans National and Regional Cycle Routes within the LVIA Study Area;
 - Outdoor Recreational Facilities, Public Amenity Areas, Historic Parks and Gardens and Country Parks within the LVIA Study Area;
 - Prominent publicly accessible elevated locations and summits within the LVIA Study Area;
 - Public Rights of Way (PROWs) and Access Land within 5km of the proposed turbines; and
 - Locally promoted walking, cycling and mountain biking routes within 5km of the proposed turbines.

Designated long distance footpaths (national and regional trails)

- 6.5.69 Designated long distance footpaths within the LVIA study area that are overlapped by the ZTV are listed as follows:
- Receptors within 10km (**Figure 6.18**):
 - ▶ Ebbw Valley Walk;
 - ▶ Sirhowy Valley Ridgeway Walk;
 - ▶ Rhymney Valley Ridgeway Walk;
 - ▶ Monmouthshire Way;
 - ▶ Taith Torfaen Anytime Challenge;
 - ▶ Raven Walk;
 - ▶ Bristol to Brecon Walk;
 - ▶ Cambrian Way; and
 - ▶ Torfaen Trail.
 - Additional designated long-distance footpaths between 10-15km:

- ▶ Usk Valley Walk;
- ▶ Iron Mountain Trail;
- ▶ Brecon Beacons Traverse;
- ▶ Cistercian Way;
- ▶ Beacons Way; and
- ▶ Celtic Way.
- Additional designated long-distance footpaths between 20-26km:
 - ▶ Black Mountains Traverse Challenge; and
 - ▶ Cambrian Way Accommodation Options (Danywenallt).

Sustrans National Cycle Routes

6.5.70 National Cycle Network Routes (NCRs) within the LVIA study area that are overlapped by the blade tip ZTV are listed as follows:

- NCR's within 10km:
 - ▶ NCR46;
 - ▶ NCR47;
 - ▶ NCR465;
 - ▶ NCR466;
 - ▶ NCR467;
- Additional NCR's between 10-15km:
 - ▶ NCR423; and
- Additional NCR's between 15-26km:
 - ▶ NCR4.

Historic Parks and Garden, Golf Courses, Country Parks and Open Access Land

6.5.71 Outdoor Recreational facilities including public amenity areas, historic parks and gardens, country parks and golf courses within the LVIA study area that are overlapped by the blade tip ZTV are listed as follows:

- Areas within 10km:
 - ▶ Pen-y-fan Pond County Park;
 - ▶ Blackwood Golf Club;
 - ▶ Bargoead Golf Club;
 - ▶ Pontypool Golf Club;

- ▶ Pontypool Historic Park;
- ▶ Brynback County Park;
- ▶ Parc Cwm Darran County Park;
- ▶ Parc Penallta Country Park;
- ▶ Sirhowy Valley Country Park; and
- ▶ Open Access Land.
- Areas between 10-15km:
 - ▶ Aberfan Cemetery and Garden of Remembrance;
 - ▶ Whitehall Golf Club; and
 - ▶ Woodlake Golf Club.
- Areas between 15-26km:
 - ▶ Morlais Castle Golf Club;
 - ▶ Bertholey House Historic Garden;
 - ▶ Rhondda Golf Club;
 - ▶ Caerphilly Golf Club; and
 - ▶ Mountain Lakes Golf Club.

Prominent publicly accessible elevated locations and summits

6.5.72 Prominent publicly accessible elevated locations and summits that are overlapped by the blade tip ZTV are listed as follows, noting those elevated locations and summits identified (*) also coincide with long distance footpath routes:

- Locations and summits within 10km that are located within open access land and/or accessed by the local PRoW network:
 - ▶ Cefn yr Arail;
 - ▶ Cefn Manmoel;
 - ▶ Mynydd-Carn y Cefn (Viewpoint 9);
 - ▶ Mynydd James;
 - ▶ Coety Mountain;
 - ▶ Mynydd Bedwellte (Viewpoint 12);
 - ▶ Cefn Geligær;
 - ▶ Cefn Y Brithdir (Viewpoint 13);
 - ▶ Gelli-gaer Common;

- ▶ Mynydd Llwyd, Mynydd Maen and Mynydd Twy-glas;
- ▶ Mynydd Garnclochdy (Viewpoint 15)*;
- ▶ Mynydd Llangatwg (Viewpoint 17);
- ▶ Blorenge (Viewpoint 18)*; and
- ▶ Rhymney Hill.
- Locations and summits between 10-15km that are located within open access land and/or accessed by the local PRow network:
 - ▶ Twmbarlwm (see viewpoint 19)*;
 - ▶ Mynydd Llangynidr (see viewpoint 20)*;
 - ▶ Cefn yr Ystrad (see viewpoint 21)*;
- Locations and summits between 15-26km that are located within open access land and/or accessed by the local PRow network:
 - ▶ Pen Crrig-calch (see viewpoint 22)*;
 - ▶ Mynydd Cilfach-yr-encil;
 - ▶ Crug Mawr*;
 - ▶ Craig-y-Fan-Du (see viewpoint 23)*.

Locally promoted walking, cycling and mountain biking routes within 5km of the proposed turbines:

- 6.5.73 Locally promoted walking and cycling routes within 5km of the proposed turbines that are overlapped by the blade tip ZTV are listed below. From the descriptions provided from internet based sources, the local routes do however appear to coincide with PRow, cycle routes, public roads and settlements that have already been scoped into the assessment.
- The Tyleri Trails³⁵ (Walk Nos. 1-9) promoted by the local Tyleri Trekkers walking group and Blaenau Gwent County Borough Council; and
 - The Ebbw Fach Trail³⁶
- 6.5.74 Mountain biking routes and facilities are located at Bryn Bach County Park. The park is located beyond 5km of the turbines, however it has been scoped in as a country park receptor, as set out above.

³⁵ Blaenau Gwent County Borough Council (2021). Walking activities (Online) Available at: https://www.blaenau-gwent.gov.uk/fileadmin/documents/Resident/Things_to_See_and_Do/TyleriTrails.pdf (Accessed 05 December 2021)

³⁶ Ebbw Fach Trail (2020). The Fourteen Green Spaces (Online) Available at: <https://www.ebbwfachtrail.org.uk/green-spaces> (Accessed 05 December 2021)

Visual receptors: transport Routes

- 6.5.75 The transportation network of 'A' and 'B' roads is mainly routed along valley floors and lower sides. Consequently, vehicular receptors' journeys are often routed through extensive areas of built development with limited availability of outward views.
- 6.5.76 Transport routes within the LVIA study area that are overlapped by the blade tip ZTV are listed as follows:
- Routes within 10km:
 - ▶ A465;
 - ▶ A467;
 - ▶ A472;
 - ▶ A4046;
 - ▶ A4047;
 - ▶ A4048;
 - ▶ A4281;
 - ▶ B4251;
 - ▶ B4254;
 - ▶ B4471;
 - ▶ B4511;
 - ▶ B4591;
 - Routes between 10-26km:
 - ▶ A449;
 - ▶ A4233; and
 - ▶ B4235.

Future baseline

- 6.5.77 It is unlikely that the future baseline will alter markedly in the short term, although the recent scoping requests for similar scale wind farms to the Proposed Development at Mynydd Llanhilleth, Abertillery and Manmoel is likely to result in planning applications and potentially consent for one or more wind farm schemes. All wind energy developments that are relevant to the cumulative assessment i.e. located within the CLVIA study area, including the aforementioned scoping schemes, are listed in **Table 6.6** and their location shown in **Figure 6.4**.
- 6.5.78 In the long term there is potential for large-scale changes in agricultural practices in response to national or international agricultural and environmental policy. The long-term continuation of the decline of 'family' farms and the amalgamation of farm units into fewer, more intensively managed farm business could gradually lead to changes such as

amalgamation of fields and the introduction of larger scale, less vernacular agricultural buildings. Should livestock farming continue to decline it is likely there would be a commensurate long-term decline in the management of field boundaries and a subsequent decline in the strength of field patterns, especially on more marginal upland areas.

6.5.79 Many of the large blocks of forestry that are a conspicuous landscape feature across parts of the LVIA study area are coniferous. They are therefore likely to be felled as commercial crops at some point with localised landscape consequences including changes to the nature of available views available to some visual receptors within the LVIA study area.

6.5.80 The UK climate is changing and climate models indicate that this rate of change could accelerate. The predicted future baseline will alter in response to future climate change, such as, higher temperatures and changes to rainfall patterns and intensity. Many of these changes will, at least initially, be subtle, for example, extended growing seasons for certain crops. The following changes with a high likelihood of occurrence could directly or indirectly affect landscape character or levels of visibility:

- Warmer summers and an associated longer growing season potentially affecting the range of crops that can be grown;
- Wetter winters with consequent local flooding;
- Decreases in soil moisture in summer and autumn and associated increased potential for drought stress on vegetation, such as, hedgerows and hedgerow trees; and
- Increased levels of tree loss, especially of more mature trees, due to the anticipated increase in the incidences and severity of winter storms and the increased incidence of diseases affecting specific tree species such as chalara for ash trees and phytophthora for a variety of species including oak, beech, larch and alder.

6.6 Embedded measures

6.6.1 A range of environmental measures have been embedded into the Proposed Development as outlined in **Section 4.8 of Chapter 4**. **Table 6.8** outlines how these embedded measures will influence the LVIA.

Table 6.8 Summary of the embedded environmental measures of relevance to LVIA

Receptor	Potential changes and effects	Embedded measures	Compliance mechanism
Construction			
Hedgerows	Localised lengths of hedgerows would be removed to facilitate the Proposed Development, with potential impact on historic field patterns as part of the landscape character baseline.	The design of the Proposed Development including access tracks has ensured that hedgerow loss has been kept to minimum	DNS planning condition



Receptor	Potential changes and effects	Embedded measures	Compliance mechanism
Grassland/scrub	Some temporary losses of habitats in working areas wind turbines, substation, tracks and temporary construction compounds	Revegetation and reinstatement.	CEMP
Woodland and Plantation	Small area of woodland lost to accommodate part of the access track and localised felling of forestry along the grid connection route	The design of the Proposed Development has ensured that woodland and plantation losses are minimised.	CEMP
Public Rights of Way (PRoW)	Impacts on use of PRoW 33/40/1 where it crosses the proposed access road, PRoWs 331/112/1 and 331/113/1 close to T5, Bridleways 331/68/1; 331/71/1; 331/70/1; 331/108/1 and 331/109/1 close to T2, T3, T4 and T5. Byway 334/41/1 close to T7 and T8 and footpath 331/75/1 near T2	Safety signage, temporary closures and temporary/permanent diversions. Set out in full in Table 4.3 at Chapter 4.	CEMP
Operation			
Residents in the settlement of Abertillery	Introduction of proposed turbines, ~0.5km from the edge of the settlement on elevated land with consequent potential for significant adverse effects upon residential receptors in dwellings with unrestricted west facing views. In addition to significant effects there is the potential for the Residential Visual Amenity Threshold to be breached i.e. by turning otherwise satisfactory dwellings into unattractive places to live.	Reduction in the perceived height of the proposed wind turbines above the intervening landform and avoidance of breaching the Residential Visual Amenity Threshold by the movement of turbines Nos. 1-5 as far west and southwest as possible, accounting for other technical constraints, away from Abertillery.	DNS planning condition
All landscape and visual receptors within the study area	The visual apparency of the turbines and consequent impact upon landscape and visual receptors will be influenced by the colour of the blades, nacelle and tower.	The turbine rotors and upper towers will be largely visible against the sky and therefore a non-reflective pale grey colour (e.g. RAL 7035) will be selected to minimise contrast.	DNS planning condition

6.7 Scope of the assessment

The Proposed Development

- 6.7.1 All decommissioning activities, including use of on-site cranes, have been scoped out of the LVIA. The decommissioning activities would be short-lived within context of proposed 30 years operational period. No additional permanent elements would be introduced that

could be visible beyond the Site's boundary and no additional landscape elements would be lost (other than those associated with the operation of the Proposed Development). In landscape and visual contexts, the decommissioning period is a short extension of the effects identified for the operational period, which after 30 years would be well-established components of the revised landscape and visual baseline. It is highly unlikely that the temporary introduction of one or two on-site cranes and some ground level plant and movement would generate any new adverse landscape and visual impacts whose magnitude would be sufficient to change previously non-significant effects into significant effects for any receptors.

Spatial scope

- 6.7.2 The spatial scope of the assessment of landscape and visual effects covers the area of the Proposed Development contained within the red line boundary, together with the 26km radius LVIA study area, as defined in accordance with GN46¹¹ and the Zones of Theoretical Visibility (ZTVs). The cumulative assessment covers a 28km radius Study Area as agreed with consultees.
- 6.7.3 The ZTV analysis is used to define the LVIA's spatial scope and to indicate the areas from where it may be theoretically possible to view all or some of the proposed blade tips and nacelles (hub heights) of one or more of the eight proposed turbines. Details of the method used to produce the ZTVs and commentary on what they represent is provided in **Section 6.4**.
- 6.7.4 **Figures 6.2** and **6.3** show the ZTVs that have been calculated to show the area of theoretical visibility of the proposed turbines based on the eight-turbine layout with turbines having a blade tip height of 180m and hub height of 105m.

Temporal scope

- 6.7.5 The temporal scope of the assessment of landscape and visual effects is consistent with the period over which the Proposed Development would be carried out and therefore covers the following periods:
- A construction phase with a duration of approximately 22-months; and
 - A 30-year operational phase.

Potential receptors

- 6.7.6 The principal landscape and visual receptors that have been identified as being potentially subject to effects are summarised in
- 6.7.7 **Table 6.9**.

Table 6.9 Landscape and visual receptors subject to potential effects

Receptor	Reason for consideration
Landscape receptors	

Receptor**Reason for consideration****LANDMAP VSAs:**

- All host and adjacent VSAs;
- VSAs within the LVIA study area that have more than 20% of their area within blade tip ZTV and have LANDMAP assessment of outstanding/high/moderate for at least one of Descriptor Responses on Overall Evaluation (50); Scenic Quality (46), or Character (48).

The LANDMAP VSAs taken forward to the detailed assessment are derived from the process outlined in GN46 which intends to focus the detailed assessment on the potentially sensitive aspect areas most likely to be affected.

LANDMAP HLAs

- Host and adjacent HLAs; and
- HLAs within the LVIA study area that have more than 20% of their area within blade tip ZTV and have LANDMAP assessment of outstanding/high/moderate for overall evaluation (40).

The LANDMAP HLAs taken forward to the detailed assessment are derived from the process outlined in GN46 which intends to focus the detailed assessment on the potentially sensitive aspect areas most likely to be affected.

LANDMAP GLAs

- Host GLAs,
- Adjacent GLAs with outstanding/high responses for survey questions 31 or 33; and
- Any GLAs that are within hub height ZTV and have a special relationship with the Site.

The LANDMAP GLAs taken forward to the detailed assessment are derived from the process outlined in GN46 which intends to focus the detailed assessment on the potentially sensitive aspect areas most likely to be affected.

LANDMAP LHAs

- Host LHAs; and
- Adjacent LHAs with outstanding/high responses for survey question 42 or 45;

The LANDMAP LHAs taken forward to the detailed assessment are derived from the process outlined in GN46 which intends to focus the detailed assessment on the potentially sensitive aspect areas most likely to be affected.

LANDMAP CLAs

- Host CLAs; and
- Adjacent CLAs with more than 20% of their area within blade tip ZTV.

The LANDMAP CLAs taken forward to the detailed assessment are derived from the process outlined in GN46 which intends to focus the detailed assessment on the potentially sensitive aspect areas most likely to be affected.

Nationally (statutory) designated landscapes and their character/special qualities: Brecon Beacons National Park

The Brecon Beacons National Park, occurring within the ZTV for the Project, is a landscape of national importance and high sensitivity.

Locally designated landscapes entirely or partly located within 10km of the boundary of the Site and within the blade tip ZTV.

Locally designated landscapes (and the landscape qualities and features for which they are designated) are of local (county level) importance.

Visual receptors**Residential visual receptors in communities within the LVIA study area and hub height ZTV.**

Typically high sensitivity receptors where there is the potential for significant effects upon visual amenity.

Receptor	Reason for consideration
Residential visual receptors in private residences within 2km of the Proposed Development and within the blade tip ZTV.	Typically high sensitivity receptors where there is the potential for substantial adverse effects upon residential visual amenity.
Recreational receptors using regionally promoted routes within LVIA study area and hub height ZTV.	Typically high sensitivity receptors where there is the potential for significant effects upon visual amenity.
Recreational receptors using PRoW networks and locally promoted cycle and mountain bike routes substantially within the hub height ZTV and 5km of Site boundary but outwith built-up areas and woodlands.	Typically high or medium sensitivity receptors where there is the potential for significant effects upon visual amenity.
Recreational receptors using sections of Sustrans NCRs routed through the LVIA study area and within the hub height ZTV.	Typically high sensitivity receptors where there is the potential for significant effects upon visual amenity.
Recreational receptors in extensive upland Access Areas and at popular summits, partially within the hub height ZTV (where not included in other categories)	Typically high sensitivity receptors where there is the potential for significant effects upon visual amenity.
Recreational receptors at visitor attractions in LVIA study area such as Country Parks and Golf Clubs and partially within hub height ZTV	Typically high or medium sensitivity receptors where there is the potential for significant effects upon visual amenity.
Vehicular receptors travelling along 'A' and 'B' roads and any promoted tourist routes within the hub height ZTV	Typically medium or low sensitivity receptors where there is the potential for significant effects upon visual amenity affecting large numbers of people.

Likely significant effects

6.7.8 The effects on landscape and visual receptors which have the potential to be significant and have been taken forward for detailed assessment are summarised in **Table 6.10**.

Table 6.10 Landscape and visual receptors scoped in for further assessment

Receptor	Likely significant effects
Landscape receptors	
LANDMAP VSAAAs, HLAAs, GLAAs, LHAAs and CLAAAs	Construction phase:
As derived from the filtering process set out in Appendix 6B.	<ul style="list-style-type: none"> Direct localised effects on parts of the host Aspect Areas' landscape character and landscape elements as a consequence of the site preparation and construction of associated infrastructure (tracks, borrow pits, control buildings / sub-stations, contractors' facilities, site access and electrical cabling) may be significant.
	Construction and operational phases:

Receptor	Likely significant effects
Brecon Beacons National Park	<ul style="list-style-type: none"> • Direct effects on the host landscape character and potentially landscape elements as a consequence of turbine erection and operation (including night-time effects resulting from aviation warning lights) are likely to be significant. • Indirect effects related to the visibility of the turbines (including night-time effects resulting from aviation warning lights) and their effect on landscape character and perceptual characteristics have the potential to be significant. <p>The closest proposed turbine would be theoretically visible from the Brecon Beacons National Park near the edge of Brynmawr at a separation distance of ~7.3km. Given that this is a landscape of high value, indirect effects upon its special qualities and landscape character have the potential to be significant.</p>
<p>Blaenau Gwent CBC SLAs</p> <ul style="list-style-type: none"> • Eastern Ridge and Mynydd James • Cwm Tyleri and Cwm Celyn • Mynydd Carn y Cefn and Cefn yr Arail • Mynydd Bedwellte, Rhymney Hill and Sirhowy Valley • Cefn Manmoel • Trefil and Garnlydan Surrounds • Beaufort Common • St. Illtyd Plateau and Ebbw Eastern Sides 	<p>Construction phase:</p> <ul style="list-style-type: none"> • Direct effects upon the host SLA (Mynydd Carn y Cefn and Cefn yr Arail) as a consequence of the site preparation and construction of associated infrastructure (tracks, borrow pits, control buildings / sub-stations, contractors' facilities, site access and electrical cabling) may be significant. <p>Construction and operational phases:</p> <ul style="list-style-type: none"> • Direct effects on the host SLA (Mynydd Carn y Cefn and Cefn yr Arail) and the landscape qualities and features for which it has been designated as a consequence of turbine erection and operation (including aviation warning lights) are likely to be significant. • Indirect effects upon the remaining six Blaenau Gwent CBC SLAs (and the landscape qualities and features for which they have been designated), as a consequence of turbine erection and operation (including night-time effects resulting from aviation warning lights) may be significant.
<p>Torfaen CBC SLAs</p> <ul style="list-style-type: none"> • Western Uplands 	<p>Construction and operational phases:</p> <ul style="list-style-type: none"> • Indirect effects upon a single Torfaen CBC SLA (and the landscape qualities and features for which it has been designated), as a consequence of turbine erection and operation (including night-time effects resulting from aviation warning lights) may be significant.
<p>Caerphilly CBC SLAs</p> <ul style="list-style-type: none"> • Upper Rhymney Valley • Mynydd Eglwysilian • Gelligaer Common • Mynydd y Lan 	<p>Construction and operational phases:</p> <ul style="list-style-type: none"> • Indirect effects upon four Caerphilly CBC SLAs (and the landscape qualities and features for which they have been designated), as a consequence of turbine erection and operation (including night-time effects resulting from aviation warning lights) may be significant.
<p>Caerphilly CBC VILLs</p> <ul style="list-style-type: none"> • Northern Rhymney Valley • Manmoel • Abercarn 	<p>Construction and operational phases:</p> <ul style="list-style-type: none"> • Indirect effects upon three Caerphilly CBC VILLs as a consequence of turbine erection and operation (including night-time effects resulting from aviation warning lights) may be significant.
Visual receptors	



Receptor	Likely significant effects
<p>Residential receptors in the closest communities and recreational receptors (within ~2km of proposed turbines and the hub height ZTV).</p>	<p>Construction phase of the Wind Farm development:</p> <ul style="list-style-type: none"> • Effects on views and visual amenity within ~2km where potential visibility of the proposed construction activities include site preparation and construction of associated infrastructure (tracks, borrow pits, control buildings / sub-stations, contractors' facilities, site access and electrical cabling) and Grid connection; and • Effects on views and visual amenity from the erection of the wind turbines. <p>Operational phase of Wind Farm development and Grid Connection:</p> <ul style="list-style-type: none"> • Effects on views and visual amenity resulting from visibility and movement of the proposed wind turbines; and • Views of the proposed aviation warning lights and potential adverse effects on night-time views; and • Views of the proposed Grid Connection – at this stage assumed to be 33kV overhead line on wooden poles.
<p>Residential receptors in communities substantially within the hub height ZTV</p>	<p>Construction and operational phases of the Wind Farm development:</p> <ul style="list-style-type: none"> • Effects on views and visual amenity from erection of the wind turbines; • Effects on views and visual amenity resulting from visibility and movement of the proposed wind turbines; and • Views of the proposed aviation warning lights and potential adverse effects on night-time views within ~10km distance.
<p>Recreational receptors using regionally promoted footpath routes and Sustrans cycle routes within the hub height ZTV.</p>	<p>Construction and operational phases:</p> <ul style="list-style-type: none"> • Effects on views and visual amenity from erection of the wind turbines; and • Effects on views and visual amenity resulting from visibility and movement of the proposed wind turbines.
<p>Ebbw Valley Walk,; Sirhowy Valley Ridgeway Walk; Rhymney Valley Ridgeway Walk; Monmouthshire Way; Taith Torfaen Anytime Challenge; Raven Walk; Bristol to Brecon Walk; Cambrian Way; Torfaen Trail; Usk Valley Walk; Iron Mountain Trail; Brecon Beacons Traverse; Cistercian Way; Beacons Way; Celtic Way; Black Mountains Traverse Challenge; Cambrian Way Accommodation Options (Danywenallt); NCR46; NCR47; NCR465; NCR466; NCR467; NCR423; and NCR4.</p>	
<p>Recreational receptors at visitor attractions in LVIA study area such as Country Parks and Golf Clubs within the hub height ZTV.</p>	<p>Construction and operational phases:</p> <ul style="list-style-type: none"> • Effects on views and visual amenity from erection of the wind turbines; and • Effects on views and visual amenity resulting from visibility and movement of the proposed wind turbines.

Receptor	Likely significant effects
<p>Pen-y-fan Pond County Park; Blackwood Golf Club; Bargoead Golf Club; Pontypool Golf Club; Pontypool Historic Park; Brynback County Park; Parc Cwm Darran County Park; Parc Penallta Country Park; Sirhowy Valley Country Park; Aberfan Cemetery and Garden of Remembrance; Whitehall Golf Club; Woodlake Golf Club; Morlais Castle Golf Club; Bertholey House Historic Garden; Rhondda Golf Club; Caerphilly Golf Club; and Mountain Lakes Golf Club.</p>	
<p>Recreational receptors in extensive upland Access Areas and at popular summits within LVIA study area (where not included in other categories) Open Access land and local PRowS including the summits and upper slopes of Mynydd-Carn y Cefn; Cefn yr Arail; Cefn Manmoel; Mynydd James, Coety Mountain; Mynydd Bedwellte; Cefn Geligaer; Cefn Y Brithdir; Geli-gaer Common; Mynydd Llwyd/Mynydd Maen/Mynydd Twy-glas; Mynydd Garnlochdy; Mynydd Llangatwg; The Blorenge; Rhymney Hill; Twmbarlwm; Mynydd Llangynidr; Cefn yr Ystrad; Pen Crig-calch; Mynydd Cilfach-yr-encil; Crug Mawr and Craig-y-Fan-Du.</p>	<p>Construction and operational phases:</p> <ul style="list-style-type: none"> • Effects on views and visual amenity from erection of the wind turbines; and • Effects on views and visual amenity resulting from visibility and movement of the proposed wind turbines.
<p>Recreational receptors using locally promoted PRow routes substantially within hub height ZTV, within 5km of Site boundary but outwith built-up areas and woodlands. The Tyleri Trails (Walk Nos. 1-9); and The Ebbw Fach Trail</p>	<p>Construction and operational phases:</p> <ul style="list-style-type: none"> • Effects on views and visual amenity from erection of the wind turbines; and • Effects on views and visual amenity resulting from visibility and movement of the proposed wind turbines.
<p>Vehicular receptors travelling along 'A' and 'B' roads and any promoted tourist routes in LVIA study area, within hub height ZTV. A465; A467; A472; A4046; A4047; A4048; A4281; B2451; B4254; B4471; B4511; B4591; A449; A4233 and B4235.</p>	<p>Construction and operational phases:</p> <ul style="list-style-type: none"> • Effects on views and visual amenity from erection of the wind turbines; • Effects on views and visual amenity resulting from visibility and movement of the proposed wind turbines.

6.7.9 The receptors/effects detailed in **Table 6.11** have been scoped out from being subject to further assessment because the potential effects are not considered likely to be significant.



Table 6.11 Summary of effects scoped out of the LVIA

Receptors/potential effects	Justification
Receptors:	
All LANDMAP Aspect Areas that do not fulfil the criteria set out in GN46¹¹	The filtering process set out within GN46 ¹¹ intends to focus the detailed assessment of potentially sensitive landscape and visual receptors on the aspect areas most likely to be affected.
Local landscape designations that are located beyond 10km and those within 10km that are substantially or completely outside the ZTVs as shown on Figure 6.16	This group of receptors includes all Torfean CBC SLAs except the Western Uplands SLA; Merthyr Tydfil CBC Gelligaer and Taf Bargoed SLA; all Monmouthshire SLAs; and one Caerphilly CBC SLA: North Caerphilly.
Visual Receptors outwith the ZTV	All receptors within the LVIA study area that are outwith the blade tip ZTV and would have no view of the Proposed Development and are scoped out.
Temporal based:	
Construction period landscape receptors – Host Cultural Landscape Aspect Area (General Upland Areas)	This is a very extensive CLAA and described in CL25 as being “ <i>typical south Wales upland zone</i> ”.
Decommissioning effects of the Proposed Development upon landscape and visual receptors	The decommissioning period is a short extension of the landscape and visual effects identified for the operational period, which after 30 years would be well-established components of the revised landscape and visual baseline.

Scope of the cumulative landscape and visual assessment

- 6.7.10 The landscape and visual cumulative assessment has been undertaken in relation to the following scenarios:
- Cumulative Scenario 1: Baseline wind turbines (Operational + Consented); and
 - Cumulative Scenario 2: Other proposed wind turbines (Cumulative Scenario 1 + Planning Application + Scoping Opinion).
- 6.7.11 As the level of effect sustained by receptors in any cumulative scenario cannot be less than that predicted in relation to the baseline scenario, it is established that the receptors predicted to sustain significant effects in **Sections 6.10 to 6.12** would necessarily experience significant effects as a result of the additional (incremental) effect of the introduction of Mynydd Carn y Cefn Wind Farm into these scenarios as well. The focus of the cumulative assessment is therefore to identify which, if any, of the receptors that would not sustain significant effects as a result of the introduction of Mynydd Carn y Cefn Wind Farm into the baseline scenario, may sustain significant effects as a result of the additional contribution of Mynydd Carn y Cefn Wind Farm to a cumulative scenario. Where a receptor has been predicted to sustain a Minor or Negligible level of effect in relation to the baseline scenario, it is not considered that there are any circumstances in which that level of additional effect could result in significant effects in a cumulative

scenario and these receptors are excluded from the cumulative assessment. As a result, the cumulative assessment is restricted to considering those receptors predicted to sustain Minor/Moderate or Moderate (not significant) levels of effect in relation to the baseline scenario.

6.8 Assessment methodology

6.8.1 The generic project-wide approach to the assessment methodology is set out in **Chapter 2: Approach to Environmental Impact Assessment**. However, whilst this has informed the approach that has been used in this LVIA, it is necessary to set out how this methodology has been applied, and adapted as appropriate, to address the specific needs of this LVIA.

Methodology for predicted landscape and visual effects

6.8.2 The LVIA has been undertaken in accordance with the methodology set out in **Appendix 6A** and conforms to the *GLVIA3*¹⁰ which is widely accepted throughout the UK as the appropriate approach to use. Other technical guidance set out in **Table 6.3** has also informed the methodology included in **Appendix 6A**.

Significance evaluation methodology

6.8.3 The level of landscape and visual effects is determined with reference to landscape or visual sensitivity and the magnitude of landscape or visual change experienced. For each receptor, the evaluation process is informed by use of a matrix, as in **Table 6.12**, that sets out the level of effects and whether this is significant or not significant.

Table 6.12 Evaluation of Landscape and Visual Effects

		Landscape and Visual Sensitivity			
		High	Medium	Low	Very Low
Magnitude of Change	High	Major (Significant)	Major/Moderate (Significant)	Moderate (Potentially Significant)	Moderate/Minor (Not Significant)
	Medium	Major/Moderate (Significant)	Moderate (Potentially Significant)	Moderate/Minor (Not Significant)	Minor (Not Significant)
	Low	Moderate (Potentially Significant)	Moderate/Minor (Not Significant)	Minor (Not Significant)	Negligible (Not Significant)
	Very Low	Moderate/Minor (Not Significant)	Minor (Not Significant)	Negligible (Not Significant)	Negligible (Not Significant)
	Zero	None / No View			

6.8.4 In line with the emphasis placed in *GLVIA3*¹⁰ upon application of professional judgement, the adoption of an overly mechanistic approach will be avoided. This will be achieved by

the provision of clear and accessible narrative explanations of the rationale underlying the assessment made for each landscape and visual receptor over and above the outline assessment provided by use of the matrix. Matrices for landscape and visual effects are provided as a summary in support of the narrative explanations. Wherever possible cross references will be made to baseline figures and/or to photomontage visualisations to support the rationale.

6.9 Assessment of effects: LANDMAP Aspect Areas

Wind Farm development

Geological Landscapes Aspect Areas

6.9.1 The assessment of effects upon the two GLAA receptors within the Study Area which have been scoped into the assessment, is set out in the detailed assessment tables in **Appendix 6C: LANDMAP Geological Landscape Aspect Areas: Assessment of effects**. A summary of the assessment of effects which may arise as a consequence of the operational Mynydd Carn y Cefn wind turbines, is presented in **Table 6.13**. There would be no significant landscape effects.

Table 6.13 Summary of effects: GLAAs (operation)

Aspect Area Reference	Aspect Area Name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
BLNGWGL013	Mynydd Carn y Cefn	High	Medium-Low	Medium	Low	Moderate/Minor to None
BLNGWGL017	Cefn yr Arail	High	Medium-Low	Medium	Low	Moderate/Minor to None

Landscape Habitats Aspects Areas

6.9.2 The preliminary assessment of effects upon the four LHAA receptors within the Study Area which have been scoped into the assessment, is set out in the detailed assessment tables in **Appendix 6D: LANDMAP Landscape Habitats Aspect Areas: Assessment of effects**. A summary of the assessment of effects which may arise as a consequence of the operational Mynydd Carn y Cefn wind turbines, is presented in **Table 6.14**. There would be no significant landscape effects.

Table 6.14 Summary of effects: LHAs (operation)

Aspect Area Reference	Aspect Area Name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
BLNGWLH074	Unnamed	Medium	Medium	Medium	Low	Moderate/ Minor to None
BLNGWLH082	Unnamed	High	High-Medium	High	Zero	None
BLNGWLH084	Unnamed	High	High-Medium	High	Zero	None
BLNGWLH085	Unnamed	High	High-Medium	High	Zero	None

Visual and Sensory Aspect Areas

6.9.3 The preliminary assessment of effects upon the 40 VSAA receptors within the Study Area which have been scoped into the assessment, is set out in the detailed assessment tables in **Appendix 6E: LANDMAP Visual and Sensory Aspect Areas: Assessment of effects**. A summary of the assessment of effects which may arise as a consequence of the operational Mynydd Carn y Cefn wind turbines, is presented in **Table 6.15** with significant landscape effects indicated in **bold**.

Table 6.15 Summary of effects: VSAs (operation)

Aspect Area Reference	Aspect Area Name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
BLNGWVS119	Mynydd Pen-y-fan	High	Medium	High	Medium	Major/ Moderate
BLNGWVS226	St. Illtyd	High	Medium	High	Medium to Zero	Major/ Moderate to None
BLNGWVS307	Carno forest	Medium	Medium-Low	Medium	Low to Zero	Moderate/ Minor to None
BLNGWVS352	Trefil	High	Medium-Low	Medium	Low to Zero	Moderate/ Minor to None
BLNGWVS399	Mynydd Llangynidr	High	Medium-Low	Medium	Low to Zero	Moderate/ Minor to None
BLNGWVS404	Ebbw/Ebbw Fach Valley	High	Medium	High	High - Medium to Zero	Major - Major/ Moderate to None
BLNGWVS542	Garden Festival	Medium	Medium-Low	Low	Medium to Zero	Moderate/ Minor to None

Aspect Area Reference	Aspect Area Name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
BLNGWVS688	Mynydd Bedwellte		Medium	Medium	Medium to Zero	Moderate to None
BLNGWVS713	Sirhowy, Ebbw Fawr and Ebbw Fach valley	High	Medium	High	Medium to Zero	Major/Moderate to None
BLNGWVS808	Cwm Tyleri	High	Medium	High	Medium-to Zero	Major/Moderate to None
BLNGWVS985	Lower Ebbw Valley	High	Medium	High	Medium	Major/Moderate
BRCKNVS372	Mynydd Llangynidr and Mynydd Llangattock	High	Medium	High	Low to Zero	Moderate to None
BRCKNVS660	Black Mountains	High	Medium-Low	High	Low to Zero	Moderate to None
BRCKNVS833	Brecon Beacons	High	Medium	High	Low to Zero	Moderate to None
BRCKNVS858	Mynydd Llangorse	High	Medium	High	Very Low to Zero	Moderate/Minor to None
CRDFVVS004	Garth Hill	High	Medium-Low	Medium	Very Low to Zero	Minor to None
CYNONVS129	Mynydd Y Grug	Medium	Medium	Medium	Low to Zero	Moderate/Minor to None
CYNONVS142	Mynydd y Glyn	Medium	Medium-Low	Medium	Low – Very Low to Zero	Moderate/Minor – Minor to None
CYNONVS317	Mynydd Eglwysilon and Mynydd Meio	Medium	Medium-Low	Medium	Low to Zero	Moderate/Minor to None
CYNONVS352	Bryn-oer Patch	Medium	Low	Medium	Low to Zero	Moderate/Minor to None
CYNONVS361	Rhoslas	Medium	Medium-Low	Medium	Low to Zero	Moderate/Minor to None
CYNONVS404	Gelligaer Common	High	Medium-Low	Medium	Low to Zero	Moderate/Minor to None
CYNONVS605	Cefn Y Brithdir	High	Medium-Low	Medium	Medium to Zero	Moderate to None
CYNONVS735	Cadair Fawr	High	Medium	High	Very Low to Zero	Moderate/Minor to None

Aspect Area Reference	Aspect Area Name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
CYNONVS854	Mynydd Y Lan	High	Medium-Low	Medium	Low to Zero	Moderate/ Minor to None
MNMTHVS008	Glangattwg Mountain	High	Medium-Low	Medium	Very Low to Zero	Minor to None
MNMTHVS010	Mynydd Garnlochdy	High	Medium-Low	Medium	Very Low to Zero	Minor to None
MNMTHVS016	Cilfeigan Park and Woodlands	High	Medium-Low	Medium	Low to Zero	Moderate/ Minor to None
MNMTHVS018	Llangeview	High	Medium-Low	Medium	Low to Zero	Moderate/ Minor to None
MNMTHVS085	Llandegfedd Reservoir	High	Medium-Low	Medium	Very Low to Zero	Minor to None
MRTHRVS858	Gelligaer Common	Medium	Medium-Low	Medium	Low to Zero	Moderate/ Minor to None
MRTHRVS917	Merthyr West Flank	High	Medium	Medium	Low	Moderate/ Minor to None
NWPRTVS030	Kemeys Graig	High	Medium-Low	Medium	Very Low to Zero	Minor to None
TRFNVS013	Unnamed	High	Medium-Low	Medium	Very Low to Zero	Minor to None
TRFNVS014	Unnamed	Medium	Medium-Low	Medium	Very Low to Zero	Minor to None
TRFNVS019	Unnamed	High	Medium-Low	Medium	Medium to Zero	Moderate to None
TRFNVS022	Unnamed	Medium	Medium-Low	Medium	Medium to Zero	Moderate to None
TRFNVS024	Unnamed	High	Medium-Low	Medium	Medium to Zero	Moderate to None
TRFNVS027	Unnamed	High	Medium-Low	Medium	Very Low-Zero	Minor to None
TRFNVS033	Unnamed	High	Medium-Low	Medium	Very Low to Zero	Minor to None

Historic Landscape Aspect Areas

6.9.4 The preliminary assessment of effects upon the 60 HLAA receptors within the Study Area which have been scoped into the assessment, is set out in the detailed assessment tables in **Appendix 6F: LANDMAP Historic Landscape Aspect Areas: Assessment of effects. A**

summary of the assessment of effects which may arise as a consequence of the operational Mynydd Carn y Cefn wind turbines, is presented in **Table 6.16** with significant landscape effects indicated in **bold**.

Table 6.16 Summary of effects: HLAAs (operation)

Aspect Area Reference	Aspect Area Name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
BLNGWHL001	HAA 1 Trefil Ddu	High	Medium – Low	Medium	Very Low	Minor to None
BLNGWHL002	HAA 2 Nant Trefil Quarry	High	Low	Medium	Very Low	Minor to None
BLNGWHL005	HAA 3 Trefil	High	Medium – Low	Medium	Very Low	Minor to None
BLNGWHL006	HAA 6 Ebbw Vale	High	Medium – Low	Medium	Low	Moderate/ Minor to None
BLNGWHL008	HAA 8 Mynydd Carn y Cefn Fieldscape	High	Low	Medium	Low	Moderate/ Minor to None
BLNGWHL009	HAA 9 Brynmawr	High	Medium – Low	Medium	Very Low	Minor to None
BLNGWHL010	HAA 10 Clydach Fieldscape North	High	Low	Medium	Very Low	Minor to None
BLNGWHL012	HAA 12 Nantyglo	High	Medium – Low	Medium	Low	Moderate/ Minor to None
BLNGWHL016	HAA 16 Tredegar	High	Medium – Low	Medium	Very Low	Minor to None
BLNGWHL021	HAA 21 Ebbw Vale (East Side)	High	Medium – Low	Medium	Low	Moderate/ Minor to None
BLNGWHL022	HAA 22 Mynydd Carn y Cefn	High	Medium-Low	Medium	Medium	Moderate to None
BLNGWHL025	HAA 25 Mynydd Coety	High	Low	Medium	Low	Moderate/ Minor to None
BLNGWHL026	HAA 26 Rhymney Hill	High	Medium-Low	Medium	Very Low	Minor to None
BLNGWHL029	HAA 29 Cefn Manmoel	High	Low	Medium	Low	Moderate/ Minor to None
BLNGWHL034	HAA 34 Cwmtillery	High	Low	Medium	Low	Moderate/ Minor to None

Aspect Area Reference	Aspect Area Name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
BLNGWHL035	HAA 35 Abertillery	High	Medium-Low	Medium	Low	Moderate/ Minor to None
BLNGWHL036	HAA 36 Mynydd Bedwellte	High	Low	Medium	Low	Moderate/ Minor to None
BLNGWHL037	HAA 37 Maes Mawr	High	Low	Medium	Low	Moderate/ Minor to None
BLNGWHL038	HAA 38 Cwm	High	Low	Medium	Low	Moderate/ Minor to None
BLNGWHL041	HAA 41 Hafod y dafal	High	Low	Medium	High	Major/ Moderate
BLNGWHL044	HAA 44 St Illtyd Fieldscape	High	Medium	High	Medium	Major/ Moderate to None
BLNGWHL045	HAA 45 Llanhilleth	High	Medium-Low	Medium	Low	Moderate/ Minor to None
BRCKNHL133	Mynydd Llangynidr	High	Low	Medium	Very Low	Minor to None
BRCKNHL567	Mynydd Llangorse	High	Medium-Low	Medium	Very Low	Minor to None
BRCKNHL642	Black Mountains	High	Medium-Low	Medium	Very Low	Minor to None
BRCKNHL829	Bannau Brycheiniog	High	Medium- Low	Medium	Very Low	Minor to None
CRDFHHL005	Garth Upland	High	Low	Medium	Very Low	Minor to None
CYNONHL004	Pen-y-fan Industrial Estate	High	Low	Medium	Low	Moderate/ Minor to None
CYNONHL005	Cefn y Brithdir	High	Medium - Low	Medium	Very Low	Minor to None
CYNONHL006	Penmoelallt	High	Low	Medium	Very Low	Minor to None
CYNONHL290	Llanfabon and Llanbradach	High	Medium-Low	Medium	Very Low	Minor to None
CYNONHL374	Twmbarlwm and Medart	High	Medium-Low	Medium	Very Low	Minor to None
CYNONHL426	Maes Manor Hotel	High	Medium-Low	Medium	Low	Moderate/ Minor to None
CYNONHL465	Ebbwy Settlement Corridor	High	Medium-Low	Medium	Low	Moderate/ Minor to None
CYNONHL556	Mynydd Bach and Mynydd-y-Grug	High	Medium-Low	Medium	Very Low	Minor to None

Aspect Area Reference	Aspect Area Name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
CYNONHL558	Cwm Dows and Cwm Philkins	High	Low	Medium	Low	Moderate/ Minor to None
CYNONHL580	Mynydd-y-glog & Cefn Cadlan	High	Medium	High	Very Low	Minor to None
CYNONHL602	Nant Bargod Rhymni	High	Medium-Low	Medium	Very Low	Minor to None
CYNONHL634	Gelligaer and Llancaich	High	Low	Medium	Very Low	Minor to None
CYNONHL660	Blackwood and the Sirhowy Valley	High	Medium-Low	Medium	Low	Moderate/ Minor to None
CYNONHL687	Rhondda Uplands	High	Medium-Low	Medium	Very Low	Minor to None
CYNONHL831	Gelligaer Common	High	Medium	Medium	Very Low	Minor to None
CYNONHL833	Llanwonno and Cwm Clydach	High	Medium-Low	Medium	Very Low	Minor to None
CYNONHL878	Mynyddau Eglwysilian a Meio	High	Low	Medium	Very Low	Minor to None
CYNONHL993	Mynydd Meio	High	Low	Medium	Very Low	Minor to None
MNMTHHL051	Gaer-fawr: Escarpment and Hinterland	High	Medium-Low	Medium	Very Low	Minor to None
MNMTHHL053	Tregrug - Llanhunog	High	Medium	Medium	Very Low	Minor to None
MNMTHHL058	Wentwood Forest	High	Medium-Low	Medium	Very Low	Minor to None
MNMTHHL070	Usk Castle Park	High	Medium-Low	Medium	Very Low	Minor to None
MNMTHHL080	Tredunnoch	High	Medium	Medium	Very Low	Minor to None
MRTHRHL006	HL006 Cwm-glo and Bryn-y-Badel	High	Medium-Low	Medium	Very Low	Minor to None
MRTHRHL009	HL009 Pen March	High	Medium-Low	Medium	Very Low	Minor to None
MRTHRHL011	HL011 Mynydd Merthyr and Mynydd Gethin	High	Medium	Medium	Very Low	Minor to None
MRTHRHL013	HL013 Cwm Cothi	High	Medium-Low	Medium	Very Low	Minor to None
MRTHRHL015	HL015 Gelligaer Common (west)	High	Medium	Medium	Very Low	Minor to None

Aspect Area Reference	Aspect Area Name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
NWPRTHL009	Wentwood Forest	High	Medium	Medium	Very Low	Minor to None
TRFNHL011	HL011 Pontypool Park	High	Medium	Medium	Very Low	Minor to None
TRFNHL014	HL014 Mynydd Garnlochdy	High	Medium-Low	Medium	Very Low	Minor to None
TRFNHL018	HL018 Glyn Trosnant and Hafod-yr-Ynys	High	Low	Medium	Low	Moderate/ Minor to None
TRFNHL019	HL019 Waun-wen and Mynydd Llanhilleth	High	Medium-Low	Medium	Low	Moderate/ Minor to None

Cultural Landscape Services Aspect Areas

6.9.5 **Appendix 6G: LANDMAP Cultural Landscape Services Aspect Areas: Assessment of effects** contains the preliminary assessment of effects upon the six CLSAA receptors within the Study Area, which have been scoped into the assessment. A summary of the assessment of effects which may arise as a consequence of the operational Mynydd Carn y Cefn wind turbines, is presented in **Table 6.17**.

6.9.6 In summary, no CLSAAs are predicted to experience significant landscape effects.

Table 6.17 Summary of effects: CLSAAs (operation)

Aspect Area Reference	Aspect Area Name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
BLNGWCLS018	Ebbw/Ebbw Fach valley	Medium	Medium	Medium	Medium	Moderate
BLNGWCLS030	Sirhowy, Ebbw Fawr and Ebbw Fach valley	High	Medium	Medium	Medium	Moderate
BLNGWCLS032	Sirhowy, Ebbw Fawr and Ebbw Fach valley	High	Medium-Low	Medium	Medium	Moderate
BLNGWCLS034	Hafod-y-dafel/Arail	Medium	Medium	Medium	Medium	Moderate
BLNGWCLS035	Hafod-y-dafel/Arail	Medium	Medium	Medium	Medium	Moderate
BLNGWCLS058	Clydach Valley	Medium	Medium	Medium	Medium	Moderate

Grid Connection

- 6.9.7 The assessment of effects on LANDMAP Aspect Areas as a consequence of the grid connection focusses on the host Aspect Areas due to the likely scale and extent of this component of the Proposed Development.

Geological Landscapes Aspect Areas

- 6.9.8 The grid connection corridor lies within GLAA BLNGWGL012: Ebbw Fawr. The overall evaluation of this GLAA is assessed in the LANDMAP survey sheet as Low with “*River processes no longer natural due to industrial development and intervention*”. Its susceptibility to the type of change proposed (assumed 33kV overhead line on wooden poles) is assessed as Medium - Low through consideration of its physical and visual characteristics which include a narrow alluvial floodplain and limited relationship with adjacent areas. Its overall landscape sensitivity to change as a consequence of the grid connection is therefore assessed as Low.
- 6.9.9 The proposed grid connection would not modify the river system to its west, nor would it alter the character of the area in terms of changes to geological features. The magnitude of change would not exceed Low and operational effects would be Minor, adverse and Not Significant.

Landscape Habitats Aspects Areas

- 6.9.10 The host LHAA for the grid connection is BLNGWLH076 (unnamed) which is dominated by planted coniferous woodland. The overall evaluation of this LHAA is recorded on the LANDMAP survey sheet as being Low. The susceptibility to the type of change proposed is assessed as Low based upon consideration of its physical characteristics which include a homogenous land cover where active management includes tree felling. Its overall landscape sensitivity to change as a consequence of the grid connection is therefore assessed as Low.
- 6.9.11 Tree felling would be required to facilitate the proposed grid connection although the width of the wayleave is not known and would be contained in a separate planning application. However, tree felling is an established land management activity within this LHAA and it is not considered that the wayleave for a 33kV route on wooden poles through the plantation woodland would give rise to substantial habitat fragmentation. As a consequence, the magnitude of change would be Low and operational effects would be Minor, adverse and Not Significant.

Visual and Sensory Aspect Areas

- 6.9.12 The grid connection lies within VSAA BLNGWVS404: Ebbw/Ebbw Fach valley. Its landscape value, as assessed in Table 6.5.6 of **Appendix 6E**, is judged to be High whilst its susceptibility is assessed as medium leading to an overall medium landscape sensitivity.
- 6.9.13 The introduction of the grid connection and wooden poles into this landscape would have limited characterising influence beyond the immediate grid connection due to the screening provided by surrounding woodland and where aesthetic qualities relating to pattern are described in the LANDMAP survey sheet as being “organised”. The wayleave

itself would be contained within the surrounding forestry whilst the regular spacing of wooden poles through the wayleave and in close proximity to the straight vertical tree trunks of the coniferous forestry trees would reduce visual contrast and the magnitude of change would not exceed Low. The level of operational effect would therefore be Moderate/Minor, adverse and Not Significant.

Historic Landscape Aspect Areas

- 6.9.14 The host HLAA for the grid connection is BLNGWHL039: HAA 39 Graig Fawr Woods which covers *"a very large area of mixed woodland littered with mining and quarrying remains and a number of buildings."* as described in the LANDMAP Survey Sheet. The overall value of the HLAA is cited as Moderate reflecting *"the limited scope of the archaeological record and the moderate to poor condition of the surviving industrial extractive features associated with the nearby Cwm Colliery, mostly contained within dense forestry plantation."* A review of the physical, visual, and perceptual characteristics of the landscape indicates a Low susceptibility to the type of change proposed as a consequence of the grid connection and a Low overall sensitivity.
- 6.9.15 Reference to **Chapter 7: Historic Environment** indicates that there are four records of non-designated historic assets located within the indicative corridor of the grid connection and no designated historic assets. The assessment in **Chapter 7: Historic Environment** concludes that very limited intrusive groundworks would take place in specific localised areas of wooden pole construction and therefore significant effects on the non-designated historic assets are considered unlikely. There is the potential for some limited direct impacts to non-designated historic assets should the cable were to be buried underground although these assets could potentially be avoided at design stage.
- 6.9.16 The overall magnitude of change would not exceed Low and effects would be Minor, adverse and Not Significant.

Cultural Landscape Services Aspect Areas

- 6.9.17 In terms of CLSAAs, the host area for the grid connection is BLNGWCLS018: Ebbw/Ebbw Fach valley. This is assessed in Table 6.7.1 of **Appendix 6G** as being of Medium landscape value and Medium susceptibility giving rise to a Medium overall landscape sensitivity.
- 6.9.18 The felling of trees within the wayleave and the presence of an overhead line on wooden poles (worst-case scenario) would not undermine the integrity of this CLSAA and the magnitude of change would not exceed Low. Landscape effects as a consequence of the operational grid connection would therefore be Moderate/Minor, adverse and Not Significant.

6.10 Assessment of effects: Brecon Beacons National Park

Wind Farm development

Special Qualities of the National Park

Overview

- 6.10.1 The Proposed Development is not located within a nationally designated landscape and there can be no direct impact on the areas of the Brecon Beacons National Park (BBNP) within the Study Area.
- 6.10.2 Nonetheless, the Proposed Development may indirectly affect the Special Qualities (SQs), including views and perceptual qualities, for which the BBNP is valued and designated. This assessment considers the effects of the Proposed Development on the SQs and the integrity of the designation.
- 6.10.3 It is important to note that wind farm development is not necessarily incompatible with the valued qualities of a landscape, this will depend on the nature and / or effects of the development and the nature of the SQs. A visual effect on a view from within the BBNP for example, may or may not affect the SQ and the integrity of the designation. In particular, paragraph 5.46 of *GLVIA3*¹⁰ further advises:
- *"An internationally, nationally or locally valued landscape does not automatically or by definition have high susceptibility to all types of change."*
 - *"It is possible for an internationally, nationally or locally important landscape to have relatively low susceptibility to change resulting from the particular type of development in question, by virtue of both the characteristics of the landscape and the nature of the proposal."*
 - *"The particular type of change or development proposed may not compromise the specific basis for the value attached to the landscape."*
- 6.10.4 The effects of the Proposed Development on the SQs have been assessed in accordance with the methodology set out in **Appendix 6A** which accords with *GLVIA3*¹⁰. In summary, the sensitivity of each relevant SQ is determined through a combination of value and the susceptibility of the SQ to change posed by the Proposed Development; this in turn is considered against the nature or magnitude of change in order to determine the level of effect on each receptor (SQ). Each effect is described in terms of its geographical extent (through reference to the viewpoints and ZTV) and whether it is temporary / long term, beneficial / neutral / adverse.
- 6.10.5 The focus of this assessment is the proposed wind turbines, including their composition, height and rotation relative to the BBNP. No ground-based or other associated infrastructure, forming part of the Proposed Development would be visible due to the separation distance and intervening topography. The upper part of a crane may be visible during construction and aviation warning lights would also be visible from part of the BBNP. An assessment of the effects of the visual aviation warning lights on selected night-

time views (including a view from The Blorenge (Viewpoint 18) within the National Park) has been included in **Appendix 6J**.

Baseline

- 6.10.6 The BBNP boundary is illustrated in **Figure 6.14** which is overlapped by the hub height and blade tip ZTV, indicating the maximum extent of theoretical visibility across the National Park. Areas within the BBNP, from where the Proposed Development may be theoretically visible, range in distance from the Proposed Development of 8km to the north of the A456 close to Brynmawr to 26km along the eastern edge of Fforest Fawr to the west of the A470/A4059.
- 6.10.7 The SQs of the Brecon Beacons National Park, as set out in A Management Plan for the Brecon Beacons National Park 2015-2020¹⁸ and the Future Beacons, The Management Plan for the Brecon Beacons National Park 2022-2027, Consultation Draft¹⁹, are described in the baseline presented in **Section 6.5**. A review of these SQs concluded that the following should be included in the assessment as they relate to visual and perceptual aspects of the BBNP:
- *"Sweeping grandeur and outstanding natural beauty: The Park's sweeping grandeur and outstanding natural beauty observed across a variety of harmoniously connected landscapes, including marvellous gorges and waterfalls, classic karst geology with caves and sink holes, contrasting glacial landforms such as cliffs and broad valleys carved from old red sandstone and prominent hilltops with extensive views in all directions. A landscape that provides a sense of time depth and timelessness.*
 - *Contrasting patterns, colours, and textures: A working, living "patchwork" of contrasting patterns, colours, and textures comprising well-maintained farmed landscapes, open uplands, lakes and meandering rivers punctuated by small-scale woodlands, country lanes, hedgerows and stone walls and scattered settlements.*
 - *Rugged, remote and challenging: In the context of the UK, geographically rugged, remote and challenging landscapes.*
 - *Sounds, sights, smells and tastes: A feeling of vitality and wellbeing that comes from enjoying the Park's fresh air, clean water, rural setting, open land and locally produced foods.*
 - *Peace, tranquillity and dark skies: A National Park offering dark night time skies, peace and tranquillity with opportunities for quiet enjoyment, inspiration, relaxation and spiritual renewal."*¹⁹
- 6.10.8 There would be no effect on the SQs related to physical characteristics or on those relating to culture and the community. For these reasons, the following SQs have been excluded from the assessment:
- *Sense of place and cultural identity: A sense of place and cultural identity - "Welshness" - characterised by the indigenous Welsh language, religious and spiritual connections, unique customs and events, traditional foods and crafts, relatively unspoilt historic towns and villages, family farms and continued practices of traditional skills developed by local inhabitants to live and earn a living here, such as common land practices and grazing.*

- *Sense of discovery: A sense of discovery where people explore the Park's hidden secrets and stories such as genealogical histories, prehistoric ritual sites, relic medieval rural settlements, early industrial sites, local myths and legends and geological treasures from time immemorial.*
- *Diversity of wildlife and richness of seminatural habitats: Extensive and widespread access to the Park's diversity of wildlife and richness of semi-natural habitats, such as native woodlands, heathland and grassland, natural lakes and riparian habitats, ancient hedgerows, limestone pavement and blanket bogs including those of international and national importance.*
- *Enjoyable and accessible: Enjoyable and accessible countryside with extensive, widespread and varied opportunities to pursue walking, cycling, fishing, water-based activities and other forms of sustainable recreation or relaxation.*
- *Intimate sense of community: An intimate sense of community where small, pastoral towns and villages are comparatively safe, friendly, welcoming and retain a spirit of cooperation."*¹⁹

Assessment of effects on Special Qualities

6.10.9 A total of five SQs (numbered 1-5) are considered relevant to this assessment and have been assessed here with a summary of the assessment provided in **Table 6.14**.

SQ1: Sweeping grandeur and outstanding natural beauty

- 6.10.10 The relevant components of this SQ which may potentially be affected by the Proposed Development relate to the BBNPs "Sweeping grandeur and outstanding natural beauty observed across a variety of harmoniously connected landscapes"¹⁹ and the "extensive views in all directions"¹⁹. Its "sense of time depth and timelessness"¹⁹ is also a quality which may be altered as a consequence of the proposed eight turbines at Mynydd Carn y Cefn.
- 6.10.11 The sensitivity of this SQ is assessed as High. This has been derived from the High value of the National Park designation and the High to Medium susceptibility of this SQ to the type of change proposed. The high levels of intervisibility and corresponding strong visual relationships with surrounding landscapes from the slopes and summits of the uplands together with the strong sense of time depth are visual and perceptual characteristics which indicate a higher susceptibility to change, tempered slightly by the visual presence of existing vertical infrastructure (pylons and wind turbines) beyond the BBNP's boundary from within a proportion of the National Park.
- 6.10.12 Where visible, the Proposed Development would appear as up to eight turbines or turbine blades from within the fragmented areas of intervisibility indicated in the ZTV in **Figure 6.14**. There would be no intervisibility from within the majority of the area of the BBNP which coincides with the Study Area. As recorded in the Viewpoint Assessment in **Appendix 6I**, some Major/Moderate to Moderate levels of visual effect are likely to be experienced by recreational receptors traversing Mynydd Llangatwg, Mynydd Llangynidr and Cefn yr Ystrad (Viewpoints 17, 20 and 21) on the southern edge of the BBNP to the north of the Proposed Development. Taken in isolation, a minority of these views (e.g.

Viewpoint 17) have the potential to be significant in visual terms, but the assessment here is focused on the SQs and integrity of the BBNP. The visible scale and extent of the wind farm would affect approximately 6° of the wide panoramas viewed from Viewpoint 17 and 5° of the wider views from Viewpoints 20 and 21. Consequently, the Proposed Development would appear as a new feature affecting a small part of the overall visual experience gained from these upland landscapes and would be experienced as part of much wider landscape panoramas, some of which include existing vertical structures (pylons) present beyond the National Park boundary. The Proposed Development would therefore become an incremental or sometimes new, man-made vertical element within the "extensive views in all directions" in which the "variety of harmoniously connected landscapes" would continue to be observed and would not significantly detract from the BBNP's "sweeping grandeur". The magnitude of change upon this SQ is assessed as Low to Very Low from areas of the BBNP which coincide with the ZTV giving rise to a level of landscape effect which would be Moderate to Moderate/Minor and Not Significant. The nature of this effect would be long term (reversible), indirect, and adverse.

SQ2: Contrasting patterns, colours, and textures

- 6.10.13 The pertinent component of this SQ is the variety of contrasting land use and land cover, "punctuated" by both natural and man-made landscape elements such as hedgerows, trees, stone walls and buildings.
- 6.10.14 The sensitivity of this SQ is assessed as High. This has been derived from the High value of the National Park designation and the Medium susceptibility of this SQ to the type of change proposed. The susceptibility of the SQ has been assessed as Medium given that it relates to a variety of different land use, which includes existing wind farm development visible from within the BBNP. However, it is also noted that wind farm development beyond the National Park boundary could be of sufficient scale and size to disrupt or dominate the existing patterns of land cover and landscape elements visible in the general views that are available from within the BBNP.
- 6.10.15 There would be no direct changes to the "patchwork" of contrasting patterns, colours, and textures within the National Park boundary as a consequence of the Proposed Development. Whilst significant visual effects have been concluded in the viewpoint assessment (**Appendix 6I**) for recreational receptors traversing Mynydd Llangatwg (Viewpoint 17), and Moderate though not significant visual effects for those traversing Mynydd Llangynidr and Cefn yr Ystrad (Viewpoints 20 and 21 respectively), from all viewpoints within the BBNP the visible extent of the wind farm would affect between 3° and 6° of the wide panoramas available increasing to 8° at The Blorenge (although here, only the blade tips of three turbines would be visible). Consequently, whilst the Proposed Development would appear as a new feature in outward views towards the Site, it would affect a small part of the overall visual experience gained from these upland landscapes. Furthermore, some of the much wider landscape panoramas include existing wind turbines and vertical structures (pylons) present beyond the National Park boundary, as recorded during the field survey, most notably from Viewpoints 17, 20 and 23. The Proposed Development would therefore become an incremental man-made vertical element beyond the existing land cover within the National Park boundary.

- 6.10.16 The Proposed Development would lead to a Very Low magnitude of change on this SQ within areas of the BBNP which coincide with the ZTV and would, if anything, add to the variety of landscapes and their complexity, whilst also maintaining visual permeability. The level of landscape effect on this SQ would be Moderate/Minor to None and Not Significant. The nature of this effect would be long term (reversible), indirect, and adverse to neutral.

SQ3: Rugged, remote and challenging

- 6.10.17 The relevant component of this SQ relates to the perceptual quality of remoteness.
- 6.10.18 The sensitivity of this SQ is assessed as High. This has been derived from the High value of the National Park designation and the High to Medium susceptibility of this SQ to the type of change proposed. The susceptibility of the SQ has been assessed as High to Medium given that the sense of remoteness varies across the BBNP, as reflected in the published descriptions for the relevant LCAs in the *Brecon Beacons National Park Landscape Character Assessment*¹⁶.
- 6.10.19 As reported in the Viewpoint Assessment in **Appendix 6I**, the magnitude of visual change for the seven viewpoints located within the BBNP (Viewpoints 15, 17, 18, 20, 21, 22 and 23) ranges from Very Low to Medium. From the areas of the BBNP where higher levels of remoteness are present, the Proposed Development would represent a very small scale and distant, man-made visual component. The higher levels of visual change coincide with those areas of landscape along the southern edge of the BBNP, which although noted in the *Brecon Beacons National Park Landscape Character Assessment*¹⁶ as evoking a sense of remoteness, are not recognised as possessing the strong or high levels of remoteness found elsewhere within the National Park. Their proximity to the major conurbations immediately to the south of the Park's boundary is noted in the published descriptions for the relevant LCAs within the *Brecon Beacons National Park Landscape Character Assessment* and observed during the field survey where the presence of other vertical infrastructure in views contributes to lower perceptions of remoteness. As a consequence, the visual presence of the Proposed Development within a small (3° to 8° of the wide panoramas available) would be incremental and would not significantly erode or dilute the baseline levels of remoteness within the fragmentary areas of landscape from which the Proposed Development would be visible. The BBNP would continue to be perceived as a rugged, remote and challenging landscape.
- 6.10.20 The Proposed Development would lead to a Very Low magnitude of change on this SQ from within areas of the BBNP which coincide with the ZTV. The level of landscape effect would be Moderate/Minor to None and Not Significant. The nature of this effect would be long term (reversible), indirect, and adverse.

SQ4: Sounds, sights, smells and tastes

- 6.10.21 The relevant component of this SQ relates to the visual qualities relating to "sights" and a "rural setting". The Park's fresh air, clean water, open land and locally produced foods would not be affected by the Proposed Development.
- 6.10.22 As previously documented and as reported in **Appendix 6I**, the magnitude of visual change for the seven viewpoints located within the BBNP (Viewpoints 15, 17, 18, 20, 21, 22

and 23) ranges from Very Low to Medium with the visible extent of the wind farm affecting between 3° and 8° of the wide panoramas available. The eight turbines of the Proposed Development would be a new visual component in outward views from a small proportion of the National Park, some of which feature existing wind turbines and vertical infrastructure but are unlikely to detract from the enjoyment of the National Park and the ensuing "feeling of vitality and wellbeing". In terms of rural setting, this is already partially diluted in some southern or south-eastern views from along the closest southern edge of the BBNP to the Site, as a consequence of its proximity to the almost continuous conurbations of Merthyr Tydfil, Tredegar, Ebbw Vale and Brynmawr which extend along the A465 corridor. The magnitude of change upon this SQ is assessed as Low to Very Low from areas of the BBNP which coincide with the ZTV giving rise to a level of landscape effect which would be Moderate to Moderate/Minor and Not Significant. The nature of this effect would be long term (reversible), indirect, and adverse.

SQ5: Peace, tranquillity and dark skies

- 6.10.23 The relevant component of this SQ relates to the visual and perceptual qualities relating to "*dark night time skies*" and "*tranquillity*". In terms of dark night time skies, reference to the *Brecon Beacons National Park, International Dark Sky Reserve External Lighting Management Plan*²⁰ indicates that the core dark skies area (or Core Zone) within the BBNP, which features the strictest lighting controls, covers Cefn yr Ystrad and areas to the west of this upland. The remainder of the BBNP forms a Buffer Zone. A very small proportion of the BBNP within the Core Zone falls within the hub height ZTV as shown in **Figure 6.14** from which the aviation warning lights may be visible as small point features across between 3° and 8° of the wider views which are available. A separation distance in excess of 8 km means that this distant visual presence would not alter the night-time Environmental Zones within the BBNP as recommended by the Institution of Lighting Professionals.³⁷
- 6.10.24 With regard to tranquillity, the Proposed Development would appear as a simple wind farm of eight turbines, rotating at a slow and regular speed, visually affecting a narrow part of the overall panoramas that are available from within the small proportion of the BBNP that coincides with the ZTV presented in **Figure 6.14**. It would not represent a visually disorganised development, or introduce noise, distracting and irregular movement or large numbers of people, all of which can detract from perceived levels of tranquillity. Recognised contributors to tranquillity³⁸ including the presence and/or perceptions of natural landscape, birdsong, peace and quiet and seeing the stars at night, would continue to be present within the landscape.
- 6.10.25 The magnitude of change upon this SQ is assessed as Low to Very Low from areas of the BBNP which coincide with the ZTV giving rise to a level of landscape effect which would be Moderate to Moderate/Minor and Not Significant. The nature of this effect would be long term (reversible), indirect, and adverse. From the majority of the BBNP, there would be no change to this SQ.

³⁷Institution of Lighting Professionals (2021). Guidance Note 01/21 The Reduction of Obtrusive Light. (Online). Available at: <https://theilp.org.uk/publication/guidance-note-1-for-the-reduction-of-obtrusive-light-2021/> (Accessed April 2022).

³⁸Landscape Institute (2017). Technical Information Note 01/2017 (Revised). Tranquillity – An overview. (Online). Available at: <https://www.landscapeinstitute.org/technical-resource/tranquillity/> (Accessed April 2022).

Summary

6.10.26 A summary of the SQ assessment for the BBNP is set out in **Table 6.18**.

Table 6.18 Special Qualities Assessment for the Brecon Beacons National Park

Special Quality	Sensitivity	Magnitude of change	Level of effect
Special Landscapes			
Sweeping grandeur and outstanding natural beauty	High	Low - Very Low to Zero	Moderate - Moderate/Minor to None Not Significant
Contrasting patterns, colours, and textures	High	Very Low to Zero	Moderate/Minor to None Not Significant
Rugged, remote and challenging	High	Very Low to Zero	Moderate/Minor to None Not Significant
Special People			
Intimate sense of community	Not assessed – cultural quality that could not be affected by the Proposed Development which is well beyond the BBNP boundary.		
Sense of place and cultural identity	Not assessed – cultural quality that could not be affected by the Proposed Development which is well beyond the BBNP boundary.		
Special Experiences			
Enjoyable and accessible:	Not assessed – physical (recreational) quality that could not be affected by the Proposed Development which is well beyond the BBNP boundary.		
Sounds, sights, smells and tastes	High	Low - Very Low to Zero	Moderate - Moderate/Minor to None Not Significant
Sense of discovery	Not assessed – cultural quality that could not be affected by the Proposed Development which is well beyond the BBNP boundary.		
Peace, tranquillity and dark skies	High	Low - Very Low to Zero	Moderate - Moderate/Minor to None Not Significant
Special Nature			
Diversity of wildlife and richness of seminatural habitats	Not assessed – physical characteristic that could not be affected by the Proposed Development which is well beyond the BBNP boundary.		



Landscape character within the National Park

- 6.10.27 The assessment of the effects on the seven LCAs within the BBNP which coincide with the hub and blade tip ZTVs as shown in **Figure 6.15** is presented in **Appendix 6H**. The conclusions of the preliminary assessment are set out in **Table 6.19**. In summary there would be no significant landscape effects upon the distinctive characteristics and character of the LCAs within the BBNP.

Table 6.19 Summary of effects: BBNP LCAs (operation)

LCA Reference	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect	Rationale
LCA 3: Fforest Fawr	High	High-Medium	High	Very Low to Zero	Moderate/Minor to None Not Significant	<p>ZTV coverage is fragmentary across this LCA, as illustrated in Figure 6.15 and is concentrated across three main areas at distances in excess of 20 km. The majority of the LCA lies outside of the ZTV.</p> <p>It is not considered that the Proposed Development would significantly alter the key perceptual and visual characteristics of this landscape, which would remain an extensive area of upland moorland landscape with high scenic quality and a strong sense of place. LCA 3 would also continue to be valued for the integrity of its historic landscapes, and for its tranquillity and sense of remoteness. This is due to the fragmented visibility, separation distance and the existing and closer influence of wind energy development within the extensive Pen-y-Cymoedd and Mynydd Bwllfa wind farms to the south, which means the Proposed Development would not appear incongruous. Instead, the distant presence of the Proposed Development in the wide panoramic views available from the elevated summits within the LCA, would give rise to an incremental small-scale urbanising influence on the perceptual qualities within these localised areas of landscape. The aviation warning lights would also contribute to a distant effect on the night-time views from areas of the LCA which coincide with the hub height ZTV, appearing as very small, points of perceived light beyond the brightly lit valley conurbations of Merthyr Tydfil and other smaller settlements.</p>
LCA 7: Central Beacons	High	High	High	Low to Zero	Moderate to None Not Significant	<p>A review of Figure 6.15 indicates fragmented visibility from within the LCA, with three main upland areas coinciding the ZTV at distances of between ~17.5 km and 25 km. An indication of the types of view available and the scale of the Proposed Development</p>



LCA Reference	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect	Rationale
						<p>is indicated in the baseline photography and wireline for Viewpoint 23.</p> <p>It is not considered that the Proposed Development would significantly alter the key perceptual and visual characteristics of LCA 7, which would remain an extensive area of open, undeveloped landscape, and which would continue to be valued for its high scenic quality and a strong sense of place arising from its elevation, dramatic and distinctive topography. The fragmented visibility, separation distance and the existing influence of wind energy development within the Pen-y-Cymoedd and Mynydd Bwllfa wind farms to the south, along with the three Pen Bryn Oer wind turbines, means the Proposed Development would not appear incongruous. Instead, the distant and consequently small-scale presence of the Proposed Development in the wide panoramic views available from the elevated summits, would give rise to an incremental human influence on the perceptual qualities relating to high levels of tranquillity, and a sense of remoteness and relative wildness within these localised areas of landscape. The aviation warning lights would also contribute to a distant effect on the night-time views from areas of the LCA which coincide with the hub height ZTV, appearing as very small, points of perceived light beyond the brightly lit valley conurbations of Merthyr Tydfil, Rhymney and Tredegar.</p>
LCA 8: Talybont and Taff Reservoir Valleys	High	Medium	High	Low to Zero	Moderate to None Not Significant	<p>Areas of intervisibility with the Proposed Development are concentrated across two small areas either side of the A470 within the southern part of the LCA at distances in excess of 17 km, although the western most area is covered by forestry and therefore intervisibility from within this area would be restricted. It is not considered that the Proposed Development would significantly alter the key perceptual and visual characteristics of LCA 8, which would continue to be characterised by its reservoirs and steep sided, forested valleys. This is due to the fragmented</p>

LCA Reference	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect	Rationale
						visibility and the presence of the Proposed Development beyond a landscape in which pylons and single turbines within the Pengarnddu Industrial Estate already have a vertical presence which means that the proposed turbines would not appear incongruous. Instead, the distant and consequently small-scale presence of the Proposed Development in the wide panoramic views available from the summit of Cefn Cilsanws, would give rise to an incremental human influence on the perceptual qualities relating to tranquillity within localised areas of landscape. The aviation warning lights would also contribute to a distant effect on the night-time views from areas of the LCA which coincide with the hub height ZTV, appearing as very small, points of perceived light beyond the brightly lit valley conurbations of Merthyr Tydfil, Rhymney and Tredegar.
LCA 9: Mynyddoedd Llangatwg and Llangynidr	High	Medium	High	Low to Zero	Moderate to None Not Significant	<p>The Proposed Development would be visible from within a moderate proportion of this LCA, concentrated across the south facing slopes of Cefn yr Ystrad, Mynydd Llangatwg and Mynydd Llangynidr. Viewpoints 17, 20 and 21 illustrate potential views from these areas of intervisibility with a Medium, Medium/Low and Low magnitude of visual change respectively. Taken in isolation these views have the potential to be significant in visual terms, but the assessment here is focused on the likely change to landscape character.</p> <p>The Proposed Development would affect a small part of the overall visual experience gained from within this landscape, experienced as part of much wider panoramas in which existing vertical structures (pylons and numerous wind turbines) beyond the National Park boundary are present and hence would not be incongruous. It would not alter the key views north across the Usk Valley and</p>

LCA Reference	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect	Rationale
						across to the Central Beacons, as cited in the extant Profile ³⁹ , which are in the opposite direction to the turbines. With regard to perceptual characteristics relating to tranquillity and remoteness, the presence of the Proposed Development would give rise to an incremental effect, leading to a slight dilution of the baseline levels of tranquillity and remoteness. It is not considered that the Proposed Development would significantly alter the distinctive characteristics or the key perceptual and visual characteristics of LCA 9, which would continue as an elevated plateau of moorland, characterised by its openness, smooth profile, lack of settlement, prehistoric archaeology and quarrying legacy. The aviation warning lights would also contribute to a distant effect on the night-time views from areas of the LCA which coincide with the hub height ZTV, appearing as very small, points of perceived light, at times in the same field of view as the brightly lit valley conurbation of Brynmawr.
LCA 12: Skirrid and Sugar Loaf	High	High	High	Very Low to Zero	Moderate/Minor to None Not Significant	A review of Figure 6.15 indicates that all of the landscape within this LCA falls outside of the hub height ZTV, whilst a very small proportion, concentrated across the summit of Sugar Loaf and its southern slopes, coincides with the blade tip ZTV. The distant presence of up to eight blades/blade tips at a separation distance in excess of 15km would not significantly alter or affect the landscape character of this area and the distinctive characteristics of the LCA would be retained. There would be no views of the aviation warning lights at night.
LCA 13: The Black Mountains	High	High	High	Low to Zero	Moderate to None Not Significant	ZTV coverage is fragmentary across this LCA as illustrated in Figure 6.15 and is concentrated across four broadly north-west to south-

³⁹ Fiona Fyfe Associates, with Julie Martin Associates, Alison Farmer Associates and Countryside. (2012). Brecon Beacons National Park Landscape Character Assessment. LCA 9 Profile (Online). Available at: https://www.beacons-npa.gov.uk/wp-content/uploads/LCA-9-PROFILE_final_120930.pdf (Accessed April 2022).

LCA Reference	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect	Rationale
						east aligned bands. The Proposed Development would be most evident from the small, southern part of the LCA around Pen Cerrig-Calch/Pen Allt-Mawr at separation distances in excess of 15 km, and as represented by Viewpoint 22. From this area of the LCA, the Proposed Development would represent a small, distant component of the wide panoramic views available, interrupting the currently unbroken southern horizon in optimum viewing conditions. The presence of this distant, man-made and incongruous element may contribute to a slight dilution of the strong sense of tranquillity, remoteness and relative wildness which is present under baseline conditions. The aviation warning lights would also contribute to a distant effect on the night-time views from these same areas, drawing attention to the presence of the Proposed Development.
LCA 15: Bloreng Hills and Slopes.	High	High	High	Very Low to Zero	Moderate/Minor to None Not Significant	The ZTV pattern within this LCA is limited, and is concentrated across two small, discrete areas; one across the summit and upper slopes of The Bloreng and the second across the summit and upper western slopes of Mynydd Garnlochdy. The towers and hubs of the proposed turbines would not be visible from within this LCA. As evidenced in the photomontages from Viewpoints 15 and 18 and recorded during the field survey, masts, pylons and wind turbines are visible in the 360° views which are available from these elevated areas. The proposed blades and associated movement would represent a distant, incremental human influence beyond the exposed, open moorland. Any visibility of the Proposed Development would not significantly alter or affect the landscape character of this area and the distinctive characteristics of the LCA would be retained. There would be no views of the aviation warning lights at night.

Grid Connection

- 6.10.28 The 1.5km to 2km length of grid connection using an assumed worst-case scenario of a 33kV overhead line on wooden poles; would be too small in scale to give rise to any indirect effects on the Special Qualities or landscape character within the Brecon Beacons National Park at a separation distance in excess of 8km.

6.11 Assessment of effects: local landscape designations

Wind Farm development

Direct landscape effects on SLAs

Mynydd Carn y Cefn and Cefn yr Arail SLA

- 6.11.1 The location of the Mynydd Carn y Cefn and Cefn yr Arail SLA is shown on **Figure 6.16**. As a local landscape designation (not of the highest or national level), the value of the Mynydd Carn y Cefn and Cefn yr Arail SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed is assessed as Medium to High. Seven of the eight proposed turbines are located within the Southern End landscape type which features characteristics such as a complex landform (i.e the *"Distinctive forked 'stop-end' to ridge"*) and a *"Well-preserved pattern of pre-industrial farmland of small rectangular fields with distinctive stone walls and overgrown beech hedges"* with a management guideline to *"conserve remoteness and tranquillity"*, all of which are physical and perceptual characteristics that are more susceptible to wind farm development. The remaining turbine would be sited within the Open Upland Ridge landscape type whose visual characteristics include a *"distinctive open skyline seen from valleys on either side"* and where the *"Main length of open upland is away from evidence of industrialisation"*. As a consequence, the overall sensitivity of this landscape to a wind farm development is assessed as High (High to Medium value and Medium to High susceptibility).
- 6.11.2 As this SLA would host all eight proposed turbines plus of the access tracks and the ancillary elements it would experience some direct effects and the operational turbines would be dominant landscape elements across the SLA, with the exception of the northern slopes, far northern section of the Open Upland Ridge landscape types and parts of the Ebbw Fawr Valley Sides which lie outside of the ZTV. The field pattern across the Southern End would be largely maintained with the access tracks utilising a proportion of existing tracks to minimise disruption to the well preserved and smaller scale field patterns although the distinctive landform may become dominated by the turbines due to their scale and proximity. The open skyline with its absence of industrialisation is also a characteristic which would be altered by the Proposed Development. The alteration to a proportion of some of the primary landscape qualities and features as a consequence of the introduction of uncharacteristic large-scale elements would give rise to a Medium to High magnitude of change across the Southern End and Open Upland Ridge landscape types defined within the SLA which would change to a Low to Zero magnitude across the wooded Ebbw Fach and Ebbw Fawr valley sides and across the far northern slopes where

the primary landscape qualities and features would be unaffected. The level of effect would therefore range from **Major** and **Significant** to None and Not Significant. The nature of these effects would be long-term (reversible), direct, and adverse.

Indirect landscape effects on SLAs and VILLs

- 6.11.3 For the remaining local landscape designations entirely or partly located within 10km of the proposed turbines and which have been scoped into the assessment (as set out in **Section 6.7**), landscape effects would be indirect, and the assessment of effects is presented in **Table 6.20**.
- 6.11.4 Significant landscape effects are predicted for the following SLAs/VILLs:
 - Eastern Ridge and Mynydd James SLA;
 - Cwm Tyleri and Cwm Celyn SLA;
 - Cefn Manmoel SLA;
 - St. Illtyd Plateau and Ebbw Eastern Sides SLA; and
 - Manmoel VILL.

Table 6.20 Indirect effects on local landscape designations

Local Landscape Designation (and reference number on Figure 6.16)	Assessment
Blaenau Gwent CBC SLAs	
Eastern Ridge and Mynydd James	<p><u>Sensitivity</u> As a local landscape designation (not of the highest or national level), the value of the Eastern Ridge and Mynydd James SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed are considered to be Low to Medium. The large-scale and generally simple land cover of grass and heath which dominates the open uplands are indicators of a lower susceptibility. The smaller scale valley sides with their mosaic of woodland and fields are indicators of a higher susceptibility to the type of change proposed along with the “panoramic and distant views” which are available for the open upland and the consequent connection to the adjacent / surrounding areas. Overall, the SLA has been assessed as being of <i>Medium</i> sensitivity to the Proposed Development.</p> <p><u>Assessment of effects: Proposed Development</u> There would be no direct landscape effects arising from the Proposed Development. Reference to Figure 6.16 indicates that a large proportion of this SLA coincides with the ZTV at distances of 1 km to approximately 5.5 km. At these distances, the scale of the proposed turbines could give rise to a high/ medium magnitude of visual change. Taken in isolation, this could lead to significant visual effects but the assessment here is focused on the primary landscape qualities and features and integrity of the SLA. The Proposed Development would appear as a new, prominent feature on the skyline affecting a small part of the overall visual experience gained from this upland landscape. The remaining primary landscape qualities and features for which this landscape has been designated would not be affected by the Proposed Development.</p>



Local Landscape Designation (and reference number on Figure 6.16)

Assessment

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Medium to Zero. The effect of the Proposed Development would consequently range from Moderate to None and would be Significant. The nature of these effects would be long-term (reversible), indirect, and adverse.

Cwm Tyleri and Cwm Celyn

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the Cwm Tyleri and Cwm Celyn SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed are considered to be Medium to High. The SLA displays a number of qualities which are indicative of a higher susceptibility including the enclosed valley landform, mosaic of land cover as well as the "*Strong rural character*" and "*Hidden, 'tucked away' quality*". There are limited indicators of lower susceptibility. Overall, the SLA has been assessed as being of *High* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. A high proportion of the SLA coincides with the ZTV as evidenced in Figure 6.16, although the presence of woodland, which is not included in the ZTV calculation means that the area of intervisibility would be reduced. The proposed turbines would be dominant features in south/south-westerly views out of the enclosed valleys. The prominence of the turbines at a minimum separation distance of 1.5 km would contrast with the small-scale valley landform which characterises this SLA and could reduce the strong rural character and hidden 'tucked away' which are primary landscape qualities of this landscape.

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Medium (across a large proportion of the SLA) to Zero (within the woodland and small, fragmented areas of landscape that lie outside of the ZTV). The effect of the Proposed Development would consequently range from Major/Moderate to None and would be Significant. The nature of these effects would be long-term (reversible), indirect, and adverse to neutral.

Mynydd Carn y Cefn and Cefn yr Arail

As set out in Section 6.7: Scope of the Assessment, this SLA is predicted to sustain Significant effects as a result of the Proposed Scheme.

Mynydd Bedwellte, Rhymney Hill and Sirhowy Valley

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the Mynydd Bedwellte, Rhymney Hill and Sirhowy Valley SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed are considered to be Medium to Low. The ZTV coincides with the open upland landscape type which displays a number of qualities which are indicative of a lower susceptibility including the upland ridge landform and simple, homogenous land cover of open moorland. Indicators of lower susceptibility include the "*Panoramic views across to other ridges to west*" and corresponding higher levels of intervisibility. Overall, the SLA has been assessed as being of *Medium* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. Reference to Figure 6.16 indicates that a moderate proportion of this SLA coincides with the ZTV at distances of between ~4 km and 9 km. At these distances, the scale of the proposed

Local Landscape Designation (and reference number on Figure 6.16)

Assessment

turbines could give rise to a high/medium magnitude of visual change. Taken in isolation, this could lead to significant visual effects but the assessment here is focused on the primary landscape qualities and features and integrity of the SLA. As demonstrated in the viewpoint assessment and photomontage for Viewpoint 12, which lies within the SLA, the visible scale and extent of the wind farm would affect approximately 16° of the wide panoramas. Consequently, the Proposed Development would appear as a new feature affecting a small part of the overall visual experience gained from this upland landscape and would be viewed as part of much wider landscape panoramas, which include existing wind turbines at Coed y Gilfach Farm, Penrhiwgwaith Farm, Oakdale Business Park and Pen-y-Fan Industrial Estate which are present within the same field of view and other, more distant turbines within 360° views. Consequently, the proposed turbines would not appear incongruous, and their presence would not significantly affect the primary landscape qualities and features for which this landscape has been designated.

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Low to Zero. The effect of the Proposed Development would consequently range from Moderate/Minor to None and Not Significant. The nature of these effects would be long-term (reversible), indirect, and adverse.

Cefn Manmoel

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the Cefn Manmoel SLA is assessed as High to Medium. The ZTV coincides with three main landscape types within this SLA; the open upland ridge, the Ebbw Fawr valley sides and the Manmoel plateau. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed are considered to be Low to Medium. The large-scale and generally simple land cover which dominates the open uplands and the forestry across the Ebbw Fawr valley sides are indicators of a lower susceptibility. The "*Panoramic views across to other ridges and Brecon Beacons*" which are available from the open upland ridge and consequent higher levels of intervisibility with the adjacent / surrounding areas together with the distinctive small-scale field pattern relating to the old settlement of Manmoel across the southern end of the SLA and increased levels of remoteness and tranquillity, are indicators of a higher susceptibility to the type of change proposed. Overall, the SLA has been assessed as being of *Medium* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. Reference to Figure 6.16 indicates that a moderate proportion of this SLA coincides with the ZTV, although the presence of woodland, which is not included in the ZTV calculation means that the area of intervisibility would be reduced, particularly across the Ebbw Fawr valley sides. At distances of between ~0.5 km and 5.5 km, the scale of the proposed turbines could give rise to a high or high/medium magnitude of visual change. Taken in isolation, this could lead to significant visual effects but the assessment here is focused on the primary landscape qualities and features and integrity of the SLA. As demonstrated in the viewpoint assessment and photomontage for Viewpoint 7, which lies within the SLA, the visible scale and extent of the wind farm would affect approximately 21° of the view. Consequently, the Proposed Development would appear as a new feature affecting a small part of the overall visual experience gained from within this landscape. The scale of the proposed turbines may dominate the small-scale field pattern historic field pattern which is present across a small proportion of this SLA. No other primary landscape qualities and features would be affected by the Proposed Development.

Local Landscape Designation (and reference number on Figure 6.16)

Assessment

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Medium to Zero. The effect of the Proposed Development would consequently range from Moderate to None and may locally be Significant. The nature of these effects would be long-term (reversible), indirect, and adverse.

Trefil and Garnlydan Surrounds

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the Trefil and Garnlydan Surrounds SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed are considered to be Low to Medium. The large-scale and generally simple land cover of grass and heath which dominates the open uplands and the forestry and grassland/heath across the Eastern Part the SLA are indicators of a lower susceptibility. The "*contrasting panoramic views, north to Pen-y-Fan, south across Heads of Valleys*" and consequent connection to the adjacent / surrounding areas together with increased levels of remoteness and tranquillity are indicators of a higher susceptibility to the type of change proposed. Overall, the SLA has been assessed as being of *Medium* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. Reference to Figure 6.16 indicates that a large proportion of this SLA coincides with the ZTV at distances of between ~8.5 km and 13 km. At these distances, the scale of the proposed turbines could give rise to a medium magnitude of visual change. Taken in isolation, this could lead to significant visual effects but the assessment here is focused on the primary landscape qualities and features and integrity of the SLA. As demonstrated in the viewpoint assessment and photomontage for Viewpoint 21, which lies ~2km to the west of the SLA, the visible scale and extent of the wind farm would affect approximately 5° of the wide panoramas. Consequently, the Proposed Development would appear as a new feature affecting a small part of the overall visual experience gained from this upland landscape and would be viewed as part of much wider landscape panoramas, which include pylons which run through or close to the southern fringes of the SLA and existing wind turbines at Pen Bryn Oer, Tafamaubach Industrial Estate, Eurocaps Premises, Crown Business Park and Rassau Industrial Estate present just beyond the SLAs southern boundary. Consequently, the proposed turbines would not appear incongruous, and their presence would not significantly affect the primary landscape qualities and features for which this landscape has been designated, nor would they undermine the key policy and management objectives outlined for this SLA.

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Low to Zero. The effect of the Proposed Development would consequently range from Moderate/Minor to None and Not Significant. The nature of these effects would be long-term (reversible), indirect, and adverse.

Beaufort Common

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the Beaufort Common SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed are considered to be Low to Medium. The SLA displays a number of qualities which are indicative of a lower susceptibility including the "*rounded hills*" landform and a land cover which comprises simple and homogenous rough grassland. The "*panoramic views from high points, across heads of the valleys, down Clydach Gorge and to Brecon Beacons*" and consequent connection to the adjacent / surrounding areas is an indicator of moderate susceptibility to

Local Landscape Designation (and reference number on Figure 6.16)

Assessment

the type of change proposed. Overall, the SLA has been assessed as being of *Medium* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. A moderate proportion of this small SLA coincides with the ZTV as shown in Figure 6.16. At a minimum separation distance of ~ 7.5 km, the proposed turbines would be visible at a scale which is sufficient to give rise to a Medium magnitude of visual change, as indicated in the photomontage for Viewpoint 14, from a location just to the south of the SLA. Taken in isolation, this could give rise to significant effects, however, with regard to the primary landscape qualities and features of the SLA, effects would not be significant. The turbines would often be viewed as part of panoramic views and wider visual experience within the SLA but would not affect views to the Brecon Beacons or down Clydach Gorge as noted in the description and would often be visible beyond the pylons which cross Beaufort Common. Whilst the proposed turbines would become a new feature on the skyline in southerly views, their visual permeability means that their presence would not dilute the open character which the key policies & management objectives seek to conserve. The primary landscape quality and feature relating to the *"Attractive secluded Beaufort Hill ponds"* would also not be affected by the Proposed Development since this part of the SLA lies outside of the ZTV.

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Low to Zero. The effect of the Proposed Development would consequently range from Moderate/Minor to None and Not Significant. The nature of these effects would be long-term (reversible), indirect, and adverse.

St. Illtyd Plateau and Ebbw Eastern Sides

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the St. Illtyd Plateau and Ebbw Eastern Sides SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed are considered to be Medium to High. The SLA displays a number of qualities which are indicative of a higher susceptibility including the *"Well-preserved pattern of pre-industrial farmland of small rectangular fields"*, the panoramic views to other plateau landscapes, the high levels of remoteness and the valley topography and mosaic of land cover across the Ebbw Valley sides. There are limited indicators of lower susceptibility, which is limited to the plateau landform of the St. Illtyd plateau. Overall, the SLA has been assessed as being of *High* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. A high proportion of the SLA coincides with the ZTV as evidenced in Figure 6.16, although the presence of woodland, which is not included in the ZTV calculation means that the area of intervisibility would be reduced. Whilst the proposed turbines would not interrupt the panoramic views south, to other plateau landscapes, they would be dominant features in westerly views from the northern part of the SLA. The prominence of the turbines at a minimum separation distance of 1.2 km would strongly contrast with the small-scale field pattern which characterises this SLA and would reduce the high levels of remoteness which is a primary landscape quality of this landscape.

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Medium (across a large proportion of the SLA) to Zero (within the woodland and small areas of landscape that lie outside of the ZTV). The effect of the Proposed Development would consequently range from Major/Moderate to None and would be

Local Landscape Designation (and reference number on Figure 6.16)

Assessment

Significant. The nature of these effects would be long-term (reversible), indirect, and adverse to neutral.

Torfaen CBC SLAs

Western Uplands

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the Western Uplands SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed are considered to be Medium to Low with some of these qualities related to the "*small valleys, more enclosed and vegetated with a regular pattern of small side fields*" which are more susceptible to change whilst other qualities are associated with the open upland plateau and homogenous land cover of heath and grassland which are indicators of a lower susceptibility to wind farm development. Overall, the SLA has been assessed as being of *Medium* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. ZTV coverage within the SLA is restricted to the far western elevated areas of the plateau including the peaks of Brygwm and Waun Wen as evidenced in Figure 6.16. From within these limited areas the SLA, the proposed turbines would be visible in westerly views at a minimum separation distance of ~2.5km and would form prominent vertical components with the potential to give rise to a medium or high magnitude of visual change. Whilst the upland landscape displays primary landscape qualities and features associated with a large scale simple and homogenous land cover, and unenclosed land which is more able to accommodate wind turbines, their proximity and scale would be such that would exert an urbanising influence over this small part of the SLA. Many of the other primary landscape qualities and features associated with the series of small valleys to the east would not be altered by the Proposed Development.

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Medium (on the elevated and peripheral western edge) to Zero (across the majority of the SLA). The effect of the Proposed Development would consequently range from Moderate to None and Not Significant. The nature of these effects would be long-term (reversible), indirect, and adverse to neutral.

Caerphilly CBC SLAs

Upper Rhymney Valley

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the Northern Rhymney Valley SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed are considered to be Low due to the existing influence of overhead power lines, the Pen Bryn Oer Wind Farm and the A465 road corridor as well as the unenclosed and largely homogenous land cover, all of which are indicators of a lower susceptibility. Overall, the Upper Rhymney Valley SLA has been assessed as being of *Medium* sensitivity to the type of development proposed.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. Figure 6.16 indicates that the Proposed Development would potentially be visible from within a moderate proportion of the SLA. Intervisibility would be largely absent from within the closest,

Local Landscape Designation (and reference number on Figure 6.16)

Assessment

south-eastern part of the designation to the Site (within 10km), with the exception of the south-eastern corner at Rhymney Hill, but would be more extensive from the open, and simple upland landscape of Pen March to the north of the A465, at distances of ~10-13km.

A review of the primary landscape qualities and features of this SLA indicates that only those qualities relating to views could potentially be affected by the Proposed Development. Whilst the scale of the proposed turbines has the potential to generate a medium magnitude of visual change at distances of 10-13km, they would form a small part of the wider panoramic views and visual experience which includes views towards the Brecon Beacons which would be in the opposite direction to the Proposed Development. The visual role of the proposed turbines beyond the pylons which cross this SLA and the numerous turbines present within the intervening landscape (as evidenced in Figure 6.4), would represent an intensification of the existing visual role played by these vertical elements, with this change being incremental as opposed to incongruous. The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Low (on the elevated slopes of Pen March and across a small proportion of Rhymney Hill) to Zero across the remainder of the southern half of the SLA (south of the A465). The effect of the Proposed Development would consequently range from Moderate/Minor to None and Not Significant. The nature of these effects would be long-term (reversible), indirect, and adverse to neutral.

Gelligaer Common

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the Gelligaer Common SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed are considered to be Medium to Low with some of the qualities (those relating to an upland and exposed landscape where the sound of the wind is noticeable) being indicators of lower susceptibility whilst the levels of openness "*with extensive views over the coalfield plateau and up to the Brecon Beacons*" and the sense of time depth associated with the "*continuity of land use*" indicate a Medium susceptibility. Overall, the Gelligaer Common SLA has been assessed as being of *Medium* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. A moderately high proportion of the SLA coincides with ZTV as indicated in Figure 6.16 at distances of ~7 km to 9.5 km. Existing wind turbines at Cefn Bach Farm and Groesfaen Farm are located just beyond the eastern boundary of this SLA, whilst a number of other turbines are present in the landscape between the SLA and the Proposed Development including those at Bedwyn farm, Pen-yr-heol Farm, Penrhiwgwaith Farm, Cruglwyn and Gelli-wen Farm. Turbines at Pen Y Fan Industrial Estate and Oakdale Business Park are also present in easterly views as evidenced in the baseline photograph from Viewpoint 16. Whilst the scale of the proposed turbines could give rise to a medium magnitude of visual change from within this landscape, they would be visible as a small part of the overall visual experience gained from within Gelligaer Common SLA and would be experienced as part of much wider landscape panoramas, some of which include existing wind turbines as noted previously. The presence of the proposed turbines in easterly views would lead to an intensification of the urbanising role already played by vertical infrastructure but would not undermine any of the key policy, management and development control objectives outlined in the relevant planning policy for this SLA and would not significantly alter its primary landscape qualities and features.

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Low to Zero. The effect of the Proposed Development would consequently

Local Landscape Designation (and reference number on Figure 6.16)

Assessment

range from Moderate/Minor to None and Not Significant. The nature of these effects would be long-term (reversible), indirect, and adverse.

Mynydd Eglwysilian

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the Mynydd Eglwysilian SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed are considered to be Medium to Low with some of the qualities (those relating to an upland landscape, lower levels of remoteness and presence of existing vertical infrastructure (pylons)) being indicators of lower susceptibility whilst the levels of openness and the *“panoramic and sometimes dramatic views over upland and adjoining valleys”* indicate a Medium susceptibility. Overall, the Mynydd Eglwysilian SLA has been assessed as being of *Medium* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. A moderately high proportion of the SLA coincides with ZTV as indicated in Figure 6.16 at distances of ~9.5 km to in excess of 15km. Whilst the proposed turbines would give rise to a Medium to Low magnitude of visual change at those distances, the incremental effect associated with the presence of the turbines beyond the numerous pylons which cross this landscape and the existing wind turbine at Castell Llwyd Farm, on the primary landscape qualities and features of the SLA, would not be significant. The description of this SLA notes that *“Some visual clutter of pylons slightly detracts from this otherwise wild/exposed typical upland area with a strong sense of place”* and the proposed turbines would lead to a slight intensification of that existing, albeit adverse, quality relating to visual clutter. The remaining primary landscape qualities and features of the SLA and associated management and development control objectives would not be affected.

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Low to Zero. The effect of the Proposed Development would consequently range from Moderate/Minor to None and Not Significant. The nature of these effects would be long-term (reversible), indirect, and adverse to neutral.

Mynyddislwyn

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the Mynyddislwyn SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed are considered to be Medium to Low with some of the qualities (those relating to an upland landscape with homogenous areas of moorland and forestry) being indicators of lower susceptibility whilst the levels of openness and the *“well-preserved irregular rural fieldscape”* which occurs in parts of the SLA indicate a Medium susceptibility. Overall, the Mynyddislwyn SLA has been assessed as being of *Medium* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. A moderate proportion of the SLA coincides with ZTV as indicated in Figure 6.16 although some of this coincides with areas of forestry and consequently, the proportion of the SLA from which outward views are available would be reduced. A number of other wind turbines are present in the landscape between the SLA and the Proposed Development including turbines at Oakdale Business Park, Pen-y-Fan Industrial Estate and Pen Y Fan Ganol Farm, whilst turbines at Tyle Crwth and Bryn Ysgawen Farm are visible to the west of the SLA.

Local Landscape Designation (and reference number on Figure 6.16)

Assessment

The incremental presence of the Proposed Development would not significantly affect the primary landscape qualities and features of the SLA which is designated in recognition of "*the importance of open moorland features in this part of the Borough and the quality of its associated landscape habitats*". The single management and development control objective which may be altered as a consequence of the Proposed development relates to preventing the "*area becoming too cluttered with incongruous vertical elements, including pylons and turbines to protect the vulnerable open integrity of the area*". Whilst the proposed turbines would become prominent vertical elements in northerly views at a minimum separation distance of 7 km, their visual permeability would not significantly affect the openness for which the SLA is valued. The remaining key management and development control objectives would not be altered.

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Low to Zero. The effect of the Proposed Development would consequently range from Moderate/Minor to None and Not Significant. The nature of these effects would be long-term (reversible), indirect, and adverse to neutral.

Caerphilly CBC VILLs

Northern Rhymney Valley

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the Northern Rhymney Valley VILL is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the VILL to the type of development proposed are considered to be Medium to Low with some of the qualities (those relating to an upland landscape, visual detractors, rural settlement pattern and wind noise/exposure) being indicators of lower susceptibility whilst the levels of openness, diverse land cover and sense of wildness indicate a Medium susceptibility. Overall, the Northern Rhymney Valley VILL has been assessed as being of *Medium* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. A small proportion of the VILL coincides with ZTV as indicated in Figure 6.16 forming a broadly north-west to south-east central band and coinciding with the ridgeline of Cefn y Brithdir. As shown in the baseline view and photomontage for Viewpoint 13, a number of other wind turbines are present in the landscape between the VILL and the Proposed Development including the single turbines at Bedlwyn Farm, Penrhiwgwaith Farm, Pen-yr-heol Farm and Gelli-wen Farm.

The Proposed Development would be visible beyond the closer single turbines, giving rise to an incremental indirect landscape effect and slightly intensifying the role played by these existing turbines in views across the Rhymney valley. The remaining primary landscape qualities and features of the VILL would not be affected, and the visual permeability of the turbines would limit effects of the perceived openness of the upland areas and valley sides. Nant Bargod Rhymni and Parc Cwm Darren, areas specifically referred to as being of higher scenic quality, lie outside of the ZTV.

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Low across Cefn y Brithdir and the within the northern tip of the smaller area of VILL to Zero across areas of landscape outside of the ZTV. The effect of the Proposed Development would consequently range from Moderate/Minor to None and Not Significant. The nature of these effects would be long-term (reversible), indirect, and adverse to neutral.

Manmoel

Sensitivity

Local Landscape Designation (and reference number on Figure 6.16)

Assessment

As a local landscape designation (not of the highest or national level), the value of the Manmoel VILL is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the VILL to the type of development proposed are considered to be Medium to Low with some of the qualities (those relating to an upland landscape with a hilly rolling landform) being indicators of lower susceptibility whilst the levels of openness, diverse land cover and distinctive field pattern indicate a Medium susceptibility. This VILL is also host to the two Cruglwyn wind turbines at its northern end. Overall, the Manmoel VILL has been assessed as being of *Medium* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. A moderate proportion of the VILL coincides with the ZTV as indicated in Figure 6.16, concentrated across the small settlement of Manmoel and the east and south facing slopes to its west. A second, smaller area of intervisibility is present around Cruglwyn within the northern tip of the VILL.

The photomontage for Viewpoint 4 indicates the type of view and the scale of the proposed turbines from this landscape with the turbines appearing prominent on the skyline. Whilst the majority of the primary landscape qualities and features for which this area has been designated would not be altered by the Proposed Development, the turbines would introduce a degree of intrusion in some outward views which are noted as increasing in quality as the elevation within this VILL increases. Their scale may also dominate the small-scale field pattern which is prevalent across this VILL. The separation between the proposed turbines and their visual permeability means that the Proposed Development would not undermine the various management and development control guidelines set for this VILL which primarily relate to conserving and enhancing the existing field patterns and sense of openness and management interventions to improve the condition of the landscape.

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Medium to Zero (within the woodland and areas which lie outside of the ZTV). The effect of the Proposed Development would consequently range from Moderate to None and would be Significant for some parts of the VILL. The nature of these effects would be long-term (reversible), indirect, and adverse to neutral.

Abercarn

Sensitivity

As a local landscape designation (not of the highest or national level), the value of the Abercarn VILL is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the VILL to the type of development proposed are considered to be Medium to Low due to the existing influence of overhead power lines within the VILLs and numerous wind turbines beyond its boundaries including those at Pen-y-Fan Industrial Estate, Oakdale Business Park and Penrhiwgwaith Farm. The uniform areas of coniferous forestry and visual enclosure provided by both this, and the valley landforms, are indicators of lower susceptibility although it is recognised that the open ridgelines afford views across adjacent wooded valleys. Overall, the Abercarn VILL has been assessed as being of *Medium* sensitivity to the Proposed Development.

Assessment of effects: Proposed Development

There would be no direct landscape effects arising from the Proposed Development. ZTV coverage within the VILL is fragmented as indicated in Figure 6.16, concentrated across of the open ridgelines and would be reduced further by the forestry which is not reflected in the ZTV calculation. Where views of the eight turbines are available, they would be viewed within the same field of view as a number of other wind turbines to the north and beyond the pylons

Local Landscape Designation (and reference number on Figure 6.16)

Assessment

which cross the northern part of this VILL. The incremental effects associated with the Proposed Development would therefore not significantly affect the valued visual characteristics associated with the contrast in colours between the coniferous plantation, heath and grassland and the sense of openness which the management and development control guidelines seek to conserve.

The magnitude of change affecting the primary landscape qualities and features of the SLA would range from Low (on the open ridgelines) to Zero within the forests and valleys. The effect of the Proposed Development would consequently range from Moderate/Minor to None and Not Significant. The nature of these effects would be long-term (reversible), indirect, and adverse to neutral.

Grid Connection

Mynydd Carn y Cefn and Cefn yr Arail SLA

- 6.11.5 The Mynydd Carn y Cefn and Cefn yr Arail SLA is also host to the grid connection corridor which would cross the Southern End landscape type. The "*Steep densely forested sides gives very enclosed character to valley*" are amongst its primary qualities and features. The loss the trees within the wayleave would not be uncharacteristic given that this is actively managed forestry whilst the introduction of the grid connection and wooden poles have limited characterising influence beyond the immediate grid connection corridor. The regular spacing of wooden poles through the wayleave and in close proximity to the straight vertical tree trunks of the coniferous forestry trees would reduce visual contrast and the magnitude of change would be Very Low. The level of operational effect would therefore be Moderate/Minor, adverse and Not Significant.

6.12 Assessment of visual effects

Wind Farm development

Overview

- 6.12.1 Visual effects are assessed by considering the sensitivity of the receptor (people in the landscape) and the magnitude of change that would affect the view or overall visual amenity. They are defined by the Landscape Institute in GLVIA 3, paragraphs 6.2 as follows:

"An assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity. The concern here is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements."

- 6.12.2 The type of effect may also be described as temporary or permanent, direct or indirect, cumulative and beneficial, neutral, or adverse. The assessment methodology is set out in **Appendix 6A**.
- 6.12.3 The residual visual effects assessed here are those effects remaining after all of the embedded design measures have been considered.
- 6.12.4 Visualisations of the Proposed Development are provided from 23 viewpoint locations and illustrated in **Figures 6.26 to 6.48**. Each of the viewpoints are assessed in a separate appendix (**Appendix 6I**).
- 6.12.5 The visual assessment has been set out as follows:
- Summary of Visual Effects;
 - Visual Effects during Construction;
 - Visual Effects during Operation;
 - Assessment of visual effects from Settlements;
 - Residential Visual Amenity Assessment (RVAA);
 - Assessment of visual effects from promoted long-distance footpaths;
 - Assessment of visual effects from Sustrans National Cycle Routes;
 - Assessment of visual effects from Historic Parks and Gardens, Golf Courses, Country Parks, PRow and Open Access Land;
 - Assessment of visual effects from locally promoted walking routes within 5km of the proposed turbines;
 - Assessment of visual effects from Transport Routes (A and B roads); and
 - Night-time visual effects.

Summary of Visual Effects

- 6.12.6 A summary of the visual assessment is set out in **Table 6.21**.

Table 6.21 Summary of Visual effects

Visual Receptor	Approximate separation from closest turbine (km)	Sensitivity	Magnitude	Level of Effect and Significance	Extent of Significant Effects
Settlements					
Abertillery	0.5km	High	None to High	No effect to Major and Significant	Significant effects experienced by residents with unrestricted or partially restricted towards the Cefn Bach ridgeline.

Visual Receptor	Approximate separation from closest turbine (km)	Sensitivity	Magnitude	Level of Effect and Significance	Extent of Significant Effects
Aberbeeg	0.9km	High	None to Low	No effect to Moderate and Not Significant	N/A
Cwm	1.1km	High	None to Low	No effect to Moderate and Not Significant	N/A
Brynithel	1.3km	High	None to Medium	No effect to Major/Moderate and Significant	Significant effects confined to northern edge of the settlement in winter.
Llanhilleth	1.8km	High	None to Low	No effect to Moderate and Significant	Significant effects confined to elevated parts of settlement north and northeast of the B4471 in winter.
Manmoel	1.9km	High	None to Low	No effect to Moderate and Not Significant	N/A
Trinant/Pentwyn	2.1km	High	None to High	No effect to Major and Significant	Significant effects confined to northern edge of the settlement.
Blaina	2.4km	High	None to Medium-High	No effect to Major and Significant	Significant effects from southern and eastern parts of the settlement with unrestricted south facing views.
Ebbw Vale	2.6km	High	None to Low	No effect to Moderate and Not Significant	N/A
Markham	3.5km	High	None to Medium-High	No effect to Major and Significant	Significant effects confined to northern edge of the settlement
Swffyrdd	3.9km	High	None to Medium	No effect to Major/Moderate and Significant	Majority of significant effects limited to occasional streets and gardens due to dwelling orientation and density.
Crumlin	4.1km	High	None to Medium	No effect to Major/Moderate and Significant	Majority of significant effects limited to occasional streets and gardens due to dwelling orientation and density.

Visual Receptor	Approximate separation from closest turbine (km)	Sensitivity	Magnitude	Level of Effect and Significance	Extent of Significant Effects
Nantyglo	4.2km	High	None to Medium-High	No effect to Major and Significant	Majority of significant effects limited to occasional streets and gardens due to dwelling orientation and density.
Oakdale	4.2km	High	None to Medium	No effect to Major/Moderate and Significant	Significant effects restricted to localised parts of the settlement due to dwelling orientation and density.
Tredegar	4.8km	High	None to Low	No effect to Moderate and Not Significant	N/A
Newbridge	5.1km	High	None to Medium	No effect to Major/Moderate and Significant	Significant effects restricted to intermittent locations on north and western edge of Panside.
Brynmawr	6.2km	High	None to Medium	No effect to Major/Moderate and Significant	Significant effects from elevated parts of the settlement to northwest of centre where there are unrestricted south facing views.
Abercarn	6.7km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Pontllanfraith	6.7km	High	None to Very Low	Moderate/Minor and Not Significant	N/A
Bargoed	7.2km	High	None to Medium	No effect to Major/Moderate and Significant	Significant effects from some dwellings at western edge and parts of the northeast suburb of the settlement
Tir-y-berth	7.3km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Rassau	7.6km	High	None to Low	No effect to Moderate and Not Significant	N/A
Pontypool	7.6km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A

Visual Receptor	Approximate separation from closest turbine (km)	Sensitivity	Magnitude	Level of Effect and Significance	Extent of Significant Effects
Penpedairheol	7.9km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Hengoed and Cefn Hengoed	8.5km	High	None to Medium	No effect to Major/Moderate and Significant	Significant effects from some dwellings at the northern and western fringes of the settlement
Gelligaer and Penybryn	9.0km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Maesycwmmmer	9.0km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Ystrad Mynach	10.0km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Crosskeys and Pontywaun	10.0km	High	None	No effect	N/A
Nelson	11.2km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Treharris	11.3km	High	None to Low	No effect to Moderate and Not Significant	N/A
Llanbradach	12.5km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Caerphilly	14.8km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Usk	16.5km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Merthyr Tydfil	17.5km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Pontypridd	17km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
<u>Recreational Routes (national/regional)</u>					

Visual Receptor	Approximate separation from closest turbine (km)	Sensitivity	Magnitude	Level of Effect and Significance	Extent of Significant Effects
Ebbw Valley Walk	0.8km	High	None to High	No effect to Major and Significant	Significant effects confined to route sections north of Trinant and from Cefn Manmoel
Sirhowy Valley Ridgeway Walk	2.1km	High	None to High	No effect to Major and Significant	Significant effects confined to localised route sections at Cefn Manmoel and Briery Hill
Rhymney Valley Ridgeway Walk	9.0km	High	None to Medium-Low	No effect to Moderate and Significant	Significant effects confined to a route section west of Ystrad Mynach
Monmouthshire Way	1.9km	High	None to High	No effect to Major and Significant	Significant effects east of Abertillery for up to ~8km of the route
Taith Torfaen Anytime Challenge	2.2km	High	None to High	No effect to Major and Significant	Significant effects east of Abertillery for extensive section of route. Very localised views at Twmbarlwn Iron Age Fort and local section southeast of Pontypool.
Raven Walk	9.0km	High	None to Medium	No effect to Major/Moderate and Significant	Significant effects comprising intermittent views from a ~2km route section southwest of Abercarn
Bristol to Brecon Walk	7.2km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Cambrian Way	7.2km	High	None to Medium	No effect to Major/Moderate and Significant	Significant effects from a localised route section at Twmbarlwn Iron Age Fort only.
Torfaen Trail	3.2km	High	None to Medium	No effect to Major/Moderate and Significant	Significant effects from ~0.7km of the route on Coety Mountain
Usk Valley Walk	10.9km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Iron Mountain Trail	6.5km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A

Visual Receptor	Approximate separation from closest turbine (km)	Sensitivity	Magnitude	Level of Effect and Significance	Extent of Significant Effects
Brecon Beacons Traverse	14.3km	High	None to Low	Moderate and Not Significant	N/A
Cistercian Way	9.5km	High	None	No effect	N/A
Beacons Way	14.0km	High	None to Low	Moderate and Not Significant	N/A
Black Mountains Traverse Challenge	19.5km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Cambrian Way Accommodation Option (Danywenallt)	20.0km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
NCR46	6.9km	High	None to Low	No effect to Moderate and Not Significant	N/A
NCR47	8.3km	High	None	No effect	N/A
NCR465	0.5km	High	None to High	No effect to Major and Significant	Significant effects from ~0.7km section south of Blaina
NCR466	0.5km	High	None to Low	No effect to Moderate and Not Significant	N/A
NCR467	3.5km	High	None	No effect	N/A
NCR423	10.5km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
NCR4	13.5km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
<u>Recreational Routes (locally promoted)</u>					
Tyleri Trails: Walk 1 - Riverside	0.5km	High	None to High	No effect to Major and Significant	Significant effects intermittently restricted by planting along the route.
Tyleri Trails: Walk 2 – Park Heights	0.2km	High	None to High	No effect to Major and Significant	Significant effects from the Cefn Bach Plateau adjacent to the Proposed Development

Visual Receptor	Approximate separation from closest turbine (km)	Sensitivity	Magnitude	Level of Effect and Significance	Extent of Significant Effects
Tyleri Trails: Walk 3 – Guardian Trail	1.2km	High	None to Low	No effect to Moderate and Not Significant	N/A
Tyleri Trails: Walk 4 – Guardian Heights	0.2km	High	None to High	No effect to Major and Significant	Significant effects from the Cefn Bach Plateau adjacent to the Proposed Development
Tyleri Trails: Walk 5 – Three Parishes	1.3km	High	None to High	No effect to Major and Significant	Significant effects from elevated land southeast of Abertillery
Tyleri Trails: Walk 6 – Coity Heights	1.9km	High	None to High	No effect to Major and Significant	Significant effects from majority of the route on open land east and southeast of Abertillery
Tyleri Trails: Walk 7 – Mynydd James	1.2km	High	None to High	No effect to Major and Significant	Significant effects from the majority of the route within and north of Abertillery.
Tyleri Trails: Walk 8 – Hidden Treasures	2.3km	High	None to Medium	No effect to Major/Moderate and Significant	Significant effects from southeast and western parts of the route.
Tyleri Trails: Walk 9 – Tyleri Valley Heights	2.3km	High	None to High	No effect to Major and Significant	Significant effects from higher ground along the eastern part of the route.
Ebbw Fach Trail	0.7km	High	None to High	No effect to Major and Significant	Significant effects where route passes through Abertillery and near Cwmtillery Lakes.
<u>Recreational and Tourist destinations</u>					
Pen-y-fan Pond County Park	2.1km	High	None to Medium	No effect to Major/Moderate and Significant	Significant effects from southern edge of park with views elsewhere more restricted by local tree cover.
Blackwood Golf Club	5.2km	Medium	None to Medium	No effect to Moderate and Not Significant	N/A
Bargoead Golf Club	6.5km	Medium	None to Medium	No effect to Moderate and Not Significant	N/A
Pontypool Golf Club	7.0km	Medium	None to Very Low	No effect to Minor and Not Significant	N/A

Visual Receptor	Approximate separation from closest turbine (km)	Sensitivity	Magnitude	Level of Effect and Significance	Extent of Significant Effects
Pontypool Historic Park	7.5km	High	No change	No Effect	N/A
Brynback County Park	8.0km	High	None to Low	No effect to Moderate and Not Significant	N/A
Parc Cwm Darran County Park	6.8km	High	None	No Effect	N/A
Parc Penallta Country Park	9.7km	High	None to Medium	No effect to Major/Moderate and Significant	Significant effects from the Observatory.
Sirhowy Valley Country Park	9km	High	None	No effect	N/A
Open Access land and PRow within 5km of proposed turbines	~0.1km	High	None to High	No effect to Major and Significant	Significant effects from PRow passing close to the Proposed Development and elevated land concentrated to the north and east.
Open Access land and PRow between 5km-10km to the north, west, west, south-west and south-east of the Site	5km	High	None to High	No effect to Major or Major/Moderate and Significant	Significant effects from open access land and PRow on elevated land including Mynydd Bedwellte, Rhymney Hill, Cefn Y Brithdir, Mynydd Langatwg, Gelligaer Common, Mynydd Llywyd, Mynydd Maen and Mynydd Twn-glas.
Open Access land between 5km-10km to the east and north-east of the Site	5km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Aberfan Cemetery and Garden of Remembrance	13.5km	High	None to Low	No effect to Moderate and Not Significant	N/A
Whitehall Golf Club	13km	Medium	None to Low	No effect to Moderate/Minor and Not Significant	N/A

Visual Receptor	Approximate separation from closest turbine (km)	Sensitivity	Magnitude	Level of Effect and Significance	Extent of Significant Effects
Woodlake Golf Club	13km	Medium	None to Very Low	No effect to Minor and Not Significant	N/A
Morlais Castle Golf Club	15km	Medium	None to Low	No effect to Moderate/Minor and Not Significant	N/A
Bertholey House Historic Garden	20km	High	None to Very Low	No effect to Moderate/Minor and Not Significant	N/A
Rhondda Golf Club	21.5km	Medium	None to Very Low	No effect to Minor and Not Significant	N/A
Caerphilly Golf Club	18km	Medium	No change	No Effect	N/A
Mountain Lakes Golf Club	19.5km	Medium	None to Very Low	No effect to Minor and Not Significant	N/A
<u>Transport Routes (A and B Roads)</u>					
A465 (Heads of the Valley Road)	11.0km	Low	None to Low	Minor and Not Significant	N/A
A467	0.6km	Medium	None to High	Major/Moderate and Significant	Significant from a ~0.7km section south of Blaina
A472	8.3km	Medium	None to Low	Moderate/Minor and Not Significant	N/A
A4046	1.1km	Medium	None to Low	Moderate/Minor and Not Significant	N/A
A4047	7.5km	Medium	None	No Effect	N/A
A4048	3.5km	Medium	None to Low	Moderate/Minor and Not Significant	N/A
A4281	3.5km	Medium	None to Very Low	Minor and Not Significant	N/A
B4251	4.5km	Medium	None	No Effect	N/A
B4254	6.5km	Medium	None	No Effect	N/A
B4471	1.0km	Medium	None to High	Major/Moderate and Significant	Significant effects from ~0.3km of route at northern edge of Swffryd and from Aberbeeg near

Visual Receptor	Approximate separation from closest turbine (km)	Sensitivity	Magnitude	Level of Effect and Significance	Extent of Significant Effects
					junction with Victoria Road.
B4511	3.7km	Medium	None to High	Major/Moderate and Significant	Significant between Argoed and Markham.
B4591	7.0km	Medium	None	No Effect	N/A
A449	18.5km	Low	None	No Effect	N/A
A4233	22.5km	Medium	None	No Effect	N/A
B4235	18km	Medium	None	No Effect	N/A

Visual Effects During Construction

- 6.12.7 The majority of the significant visual effects would be experienced as a result of views of the proposed turbines, during the operational period and this forms the main focus of the assessment. However, the visual effects associated with the construction phase of the Proposed Development and the infrastructure components also have the potential to be significant.
- 6.12.8 The assessed levels of effect will tend to increase from Zero, at the start of construction and progressively increase to a maximum level of effect, equal to that occurring during operation, upon completion of the construction period. The construction effects although temporary are likely to involve greater movement of machinery and visibility of contrasting construction activity, background noise and associated lighting. The nature of these effects would be temporary, direct, and adverse. Some construction activities may be remote from the Site (access works) and / or temporary (temporary construction compounds) and subject to restoration on completion of the construction period.
- 6.12.9 An assessment of each of the component parts of the Proposed Development, likely to be constructed during the construction period is provided as follows:
 - New Internal Access Tracks, Turning Heads and Crane Hard-standings:

New internal access tracks, turning heads and crane hard-standings would provide access to the proposed turbines. Views of these works would be experienced by people on local public rights of way that traverse the Cefn Bach Plateau and parts of locally promoted routes (Tyleri Trails – Routes 2 and 4), noting some Public Rights of Way (PRoW) will be required to be temporarily closed during construction. PRoW 334/40/1 crosses the access road near the site entrance on the A4046 Aberbeeg Road and this footpath will require management with information boards and signage provided to advise recreational users of the construction works taking place. The footpath could remain open with appropriate management.



PRoWs 331/112/1 and 331/113/1 are in the south of the site close to T5. The requirement for a stand-off distance of 200m from the turbines has been identified to reflect safety considerations for users of PRoW. As shown in **Figure 16.2** Bridleways 331/68/1; 331/71/1; 331/70/1; 331/108/1 and 331/109/1 cross the 200m radii for T2, T3, T4 and T5. During construction and operation, the bridleways could be diverted to the north and west of T2, to the east of T3 and T4 and to the west of T5 re-joining existing 331/109/2 south of T5. Byway 334/41/1 crosses the 200m radii for T7 and T8. During construction and operation, the byway will require partial closure due to the close distance to the turbines in this location. During construction and operation, the byway could be diverted to the west of T7 and the east of T8 which would allow reconnection to the original PRoW south of T8. Footpath 331/75/1 crosses the 200m radii for T2 and during construction and operation, this footpath would require partial closure due to the close distance to the turbines. The footpath could be diverted north of the buffer to re-join the bridleway as existing. Where access is available to the Cefn Bach Plateau, the magnitude of change experienced by recreational users of the PRoW would vary and potentially could be up to Medium for parts of some routes, resulting in a **Major/Moderate** effect that is **Significant**, temporary and adverse.

Parts of the access tracks and associated works would also be clearly perceptible from elevated land to the east of Abertillery ~1.5km to 3km distant including parts of open access land, local PRoW, sections of the local promoted Tyleri Trails (Routes 5 and 6) and sections of the Monmouthshire Way and Taith Torfaen Anytime Challenge. The magnitude of change would be Low and visual effects Moderate and Not Significant where views of any ground level construction works would be typically restricted to the creation of access tracks and crane pads between T1 to T5 along the eastern part of the Cefn Bach Plateau. The nature of these effects would be short-term, indirect and adverse.

- Substation Building:

The single storey substation building (~14 x 10m) is located adjacent the Hafod y Dafal farm buildings and would be of traditional blockwork construction and faced in stone with a slate roof. Associated fencing would be of recessive colouring. By virtue of modest size and appearance and relationship to nearby farm buildings the construction of the substation would have limited visibility from the surrounding area. Views of any appreciable magnitude would be limited to short sections of the PRoW that cross the Cefn Bach plateau, most notably the Byway 334/41/1. The magnitude of change would be Very Low such that the level of visual effect would be Moderate/Minor and Not Significant. The nature of these effects would be short-term, indirect and adverse.

- Temporary construction compound:

The compound would be a maximum of 50m x 50m in area and located adjacent to the Hafod y Dafal farm buildings and nearby solar farm. The compound would be lit with security lighting, which would face inwards to minimise light pollution. Views would be limited to short sections of the PRoW that cross the Cefn Bach plateau, most notably the Byway 334/41/1. The magnitude of change would be Low at most, such that the level of visual effect would be Moderate and Not Significant. The nature of these effects would be short-term, indirect and adverse. Once the erection and

commissioning of the wind turbines is complete, the main construction compound would be removed and the land reinstated.

Visual Effects During Operation

6.12.10 The assessed levels of effect are likely to be at their greatest during the period of operation, due to the visibility of the proposed turbines. The main visual assessment although focused on the proposed turbines, also refers to the associated infrastructure, assessed above, where visible.

Assessment of Visual Effects from Settlements

6.12.11 The assessment of visual effects from settlements is set out in **Table 6.22**.

Table 6.22 Assessment of visual effects from Settlements

Receptor	Assessment
Settlements within 10km	
Abertillery	<p>The linear town is ~3.5km long and occupies the valley base and lower valley slopes to the east of the Proposed Development, noting the urban area of the town has historically expanded to include the villages of Six Bells and Cwmtillery. With a population of over 10,000 there are estimated to be several thousand dwellings within the settlement. The closest proposed turbine would be ~0.5km from the western edge of the settlement. Outlying dwellings at the edge of the settlement and within 2km of the Proposed Development are covered separately as part of the Residential Visual Amenity assessment set out in Appendix 6K.</p> <p>Viewpoint 1 from within the settlement is assessed in detail at Appendix 6I and Viewpoint 2 from the Six Bells Mining Memorial Park at the southern edge of Abertillery falls outside the final ZTV and consequently there would be no views of the Proposed Development. With reference to the ZTVs at Figures 6.2 and 6.3 the landform partly restricts views along the western edge of the settlement where properties are further screened by forestry (not accounted for in the ZTV), noting the tree cover closest to the edge of the settlement is not subject to clear felling as part of the published management plans. From many residential properties within the town there would be views of the Proposed Development, although this depends on individual dwelling orientation and other local factors including intervening built development. Where unrestricted or largely unrestricted views are available to the Cefn Bach ridgeline, views from dwellings would typically comprising 5 turbine hubs and blades (T1-T5) as illustrated in the photomontage at Viewpoint 1. Further from the Proposed Development, at more elevated locations near the eastern edge of the town, the ZTV indicates that the blades of T1-T3 would also potentially be visible.</p> <p>From some dwellings, views of the proposed turbines above the Cefn Bach ridgeline, from ground level windows at least, would be screened by intervening dwellings. One such example frequently encountered is where rows of parallel terraces lie at a similar elevation e.g. Duke Street and Princess Street. Less frequently, at the end of terraces for example, the front of dwellings are often orientated northeast or southwest away from Proposed Development with views of the proposed turbines typically restricted to narrow views from the public street. Occasionally, local tree planting within the settlement restricts views towards the Cefn Bach ridgeline, however the movement of the proposed turbine rotors are likely to be perceptible in winter. Review of the ZTV and assessment in the field indicates that it would not be a proportionate or informative approach to attempt to sub-divide the settlement into groups of properties that would experience the same magnitude and level of effect. The magnitude of</p>



Receptor**Assessment**

change would frequently change along a single street and even within a discrete group of dwellings such as a small cul-de-sac or group of flats.

Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a typically Medium to High value resulting in an overall High sensitivity. The magnitude of change would range from Zero to High. A High magnitude of change, would be experienced by residents in many properties across the town, including but not confined to, the southeast edge of the settlement at Six Bells, Valley View Road and surrounding streets to the northeast of the town centre, and from Atlee Avenue and nearby roads near the north-western end of the settlement where the lower density of dwellings and significant level changes between parallel roads allows clear views to the Cefn Bach ridgeline.

The level of effect from individual dwellings would range from No effect to **Major and Significant**. The nature of these effects would be long-term (reversible), indirect and adverse.

Aberbeeg

This small settlement is located close to the Ebbw River at the base of the valley, directly south of the Proposed Development, with the closest proposed turbine ~0.9km from the settlement. Groups of properties on the edge of Aberbeeg, outside the settlement boundary are covered by the Residential Visual Amenity Assessment at **Appendix 6K**.

With reference to the ZTVs at **Figures 6.2 and 6.3** the intervening landform would prevent any views of the Proposed Development from the north-eastern part of the settlement. From the central and northwestern parts of the settlement, whilst the ZTVs indicate the potential for visibility of up to 6 turbine hubs and 8 blade tips, in reality views would be typically restricted by dwelling orientation, intervening buildings and mature tree cover including in the vicinity of Aberbeeg Church. From the elevated southern end of the settlement, the ZTV indicates theoretical views of all turbine hubs and whilst the majority of dwellings are orientated east-west with no views towards the Proposed Development there would be opportunities for clear views and Significant effects from the B4471 near the junction with Victoria Terrace (assessed separately).

Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. The magnitude of change would range from Zero for many individual properties due to orientation and the presence of intervening landform and buildings to a low magnitude at the northern edge of the settlement where local tree cover close to dwellings would heavily filter views towards the Proposed Development. Given that the resulting Moderate level of effect would be experienced only at the northern periphery of the settlement, the effect upon the settlement is considered Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.

Cwm

The linear settlement is ~1.6km long and occupies the Ebbw River valley to the north-west of the Proposed Development, with the closest proposed turbine ~1.1m from the southern edge of Cwm. Groups of properties within the settlement and ZTV are covered by the Residential Visual Amenity assessment at **Appendix 6K. Viewpoint 3** from within the settlement is assessed in detail at **Appendix 6B**.

With reference to the ZTVs at **Figures 6.2 and 6.3** the intervening landform largely restricts views of the proposed turbines from the settlement with the blade only of turbine T6 only typically visible from central and the southwestern edge of the settlement (**Viewpoint 3**). From the central and northern parts of the settlement there would be theoretical views of 1-2 turbine hubs, however in reality views would be often restricted by intervening buildings with visibility of the Proposed Development from within the settlement typically more restricted than illustrated at **Viewpoint 3**.

Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium value, with the A4046 and railway corridors that pass through the settlement being frequently visible, resulting in an overall High sensitivity. The magnitude of effect would range from Zero for some individual properties due to orientation and the presence of local tree screening but from the majority of the dwellings within the settlement it would be Low (**Appendix 6K**), resulting in an overall Moderate level of Effect from the

Receptor	Assessment
	<p>majority of the settlement that is Not Significant, given the very restricted visibility of the Proposed Development and busy urban context with main transport routes passing through the settlement. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Brynithel	<p>This small settlement is part of the community of Llanhilleth (assessed separately below) and is located on the valley side between the main part of Llanhilleth to the south and Aberbeeg to the north. At the closest point the village lies ~1.3km south-east of the Proposed Development. Some groups of properties within Brynithel and scattered dwellings in St. Illtyd and the ZTV are covered by the Residential Visual Amenity Assessment at Appendix 6K. With reference to the ZTVs at Figures 6.2 and 6.3 the intervening landform would prevent any views of the Proposed Development from the eastern parts of the settlement. Theoretical views of up to all 8 turbine hubs are indicated by the ZTV from the northwestern parts of the settlement. Review in the field indicates actual views from dwellings would be typically restricted by their orientation and often screened by local tree cover in summer but less restricted views in winter. From the elevated northern edge of the settlement, and properties in St. Illtyd there would be opportunities for restricted views of the Proposed Development from a small number of properties orientated north-west and from gardens and the local road network on or near the periphery of the settlement.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. The magnitude of effect would range from Zero for the majority of individual properties due to orientation and the presence of intervening landform and local tree screening; however from the more elevated northern end of the settlement, including St Illtyd, the magnitude of change would be up to Medium in winter (Appendix 6K), resulting in a Major/Moderate level of Effect that is Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
LLanhilleth	<p>The centre of the small linear settlement is located in the base of the valley to the north and south of the railway. Brynithel that is located on higher ground to the north is assessed separately above. At the closest point the village lies ~1.8km south-east of the Proposed Development. Groups of properties at the northern edge of Llanhilleth and nearby scattered dwellings are covered in the Residential Visual Amenity Assessment at Appendix 6K. With reference to the ZTVs at Figures 6.2 and 6.3 the intervening landform would prevent any views of the Proposed Development from the majority of the settlement. Theoretical views of up to 4 turbine hubs are indicated by the ZTV from localised parts of the settlement, including the southeast of the Glandwr Industrial Estate where the properties are set down relative to the industrial estate that would screen oblique views of the Proposed Development. The ZTV indicates limited visibility from the B4471 and residential streets to the north and northeast on rising ground. In reality the orientation of the dwellings relative to the Proposed Development and mature tree cover would largely prevent visibility of up to 4 turbine hubs. Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. The magnitude of effect would range from Zero for the majority of individual properties due to orientation and the presence of intervening landform and local tree screening; however from the more elevated parts of the settlement, north and northeast of the B4471, the magnitude of change comprising heavily filtered oblique views of up to 4 turbine hubs would be Low in winter (Appendix 6K), resulting in a Moderate level of effect that is potentially Significant from very localised parts of the settlement, given the Proposed Development would be only ~2.5km distant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Manmoel	<p>The village is located ~1.9km west of the Proposed Development. Groups of properties at core of the settlement and nearby scattered dwellings are covered in the Residential Visual Amenity Assessment at Appendix 6.K. Viewpoint 4 from the northern edge of the settlement is</p>



Receptor	Assessment
	<p>assessed in detail at Appendix 6B, and whilst the view is taken from a public road it is likely to be similar to more restricted views from the property of Llanerch that is an outlying dwelling to the west of the main village.</p> <p>With reference to the ZTVs at Figures 6.2 and 6.3 there would be theoretical visibility of all 8 turbine blade tips and all hubs at the western edge of the village (Viewpoint 4). As the land elevation falls away to the eastern edge of the village the visibility of turbine hubs would be increasingly restricted by intervening landform. The greatest magnitude would be experienced by dwellings facing the street where views would not be restricted by other buildings. Visibility of the Proposed Development would be restricted by multiple layers of mature hedgerow trees that would predominantly restrict ground level views of the proposals; however it is predicted that rotor movement and blade tip visibility would be perceptible from some dwellings in winter. The magnitude of change would be Low, resulting in a Moderate level of Effect that is Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Trinant / Pentwyn	<p>The two communities lie adjacent to each other, ~2.1km south of the Proposed Development. Viewpoint 5 from the northern edge of the settlement is assessed in detail at Appendix 6B. With reference to the ZTVs at Figures 6.2 and 6.3 the northern part of the settlement lies within the ZTV indicating visibility of all 8 turbine hubs (Viewpoint 5). The relatively high density of the settlement and falling land elevation would restrict views away from the settlement edge, noting partial views from estate roads would be available, where the majority of dwellings are orientated east-west away from the Proposed Development.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. The magnitude of change would be High at properties on the northern edge of the settlement; however no views of the Proposed Development would be available from the majority of dwellings within the settlement, resulting in No change and No effect. There would be a localised Major level of Effect from the northern edge of the settlement that would be Significant. The nature of these effects would be long-term (reversible), indirect and adverse. Cumulative visibility is informed by review of the cumulative wirelines for Viewpoint 5.</p>
Blaina	<p>The settlement is located ~2.4km north of the Proposed Development at the closest point. Viewpoint 11 within the nearby settlement of Nantyglo is assessed in detail at Appendix 6B and views of the Proposed Development from the elevated eastern edge of Blaina would be similar, albeit at closer proximity to the Proposed Development.</p> <p>With reference to the ZTVs at Figures 6.2 and 6.3 the majority of the settlement lies within the ZTV, however the majority of terrace dwellings within the settlement are orientated east-west and consequently restricted views would predominantly be available from north-south facing streets or experienced by residents of a limited number of south facing dwellings where views are not restricted by other dwellings e.g. Henwaun Street. Oblique views would be available from the gardens of many properties, particularly from rising land at the eastern side of the settlement and similar to nearby Viewpoint 11, although the Proposed Development at the southern end of Blaina would be noticeably closer (2.4km) resulting in a localised High magnitude of change.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. Whilst the majority of dwellings are not orientated towards the Proposed Development, residents would experience partly restricted views of the Proposed Development from gardens and roads within the settlement. Consequently there would be a Medium to High magnitude of change and an overall Major level of Effect from many parts of the settlement that would be Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Ebbw Vale	<p>The linear town is over 5km long and the southern end is ~2.6km north-west of the Proposed Development at the closest point. Viewpoint 7 was taken from the car park of the Festival Park and is assessed in detail at Appendix 6B.</p>



Receptor	Assessment
	<p>With reference to the ZTVs at Figures 6.2 and 6.3 the southern end and western parts of the town on rising land lie within the ZTV, with the greatest extent of the Proposed Development (up to 6 hubs and 8 blade tips) predicted to be visible from the western margins including Briery Hill. The majority of dwellings in this area comprise terraced housing orientated east-west and away from the Proposed Development and consequently views from within dwellings would be infrequent and visibility from the main residential suburbs largely confined to restricted glimpses from some gardens and streets orientated north-south. Views from the town centre, ~6km from the Site would be more restricted in nature because of the density of built development and lower elevation and occasional glimpses of up to 2 turbine hub and blade tip are predicted to be available. Closer to the Site, the suburbs at the southern end of the town comprising Waun-Lwyd to the east and Victoria to the west are surrounded by mature tree cover that even in winter restricts south facing views towards the Proposed Development.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. The magnitude of change would be High/Medium within the Festival car park, noting views of the Proposed Development would be more restricted elsewhere from the main settlement due to the presence of intervening tree cover and the orientation of buildings. Consequently a Low magnitude of effect is assessed that would result in an overall Moderate level of Effect that would be Not Significant as views of the Proposed Development would be experienced intermittently and from isolated locations within the settlement. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
<p>Markham</p>	<p>The village is located ~3.4km southwest of the Proposed Development. Viewpoint 8 from the northern edge of the settlement is assessed in detail at Appendix 6B.</p> <p>With reference to the ZTVs at Figures 6.2 and 6.3 the whole settlement lies within the ZTV with the greatest theoretical visibility of the Proposed Development at more elevated parts of the settlement to the south and west. The relatively high density of buildings within the settlement would however restrict views of the Proposed Development from the majority of dwellings. Views from north facing dwellings at the western end of James Street would be available across the sports pitches on the southern edge of the settlement. These views would however be heavily filtered by the tall security fence around the sports ground and local tree cover.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. The magnitude of change would be High to Medium at properties on the northern edge of the settlement; however no views of the Proposed Development would be available from the majority of dwellings within the settlement, resulting in No change and No effect. There would be a localised Major level of Effect from the northern edge of the settlement that would be Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
<p>Swffryd</p>	<p>The community is located ~3.9km southeast of the Proposed Development and with reference to the ZTVs at Figures 6.2 and 6.3 there is the potential for views of the Proposed Development from the majority of the settlement, apart from the eastern part of the community. The majority of properties are orientated south and south-east, thereby limiting views of the Proposed Development from the dwellings, however views of the Proposed Development (of up to 8 turbine hubs) would be frequently available from gardens and streets within the settlement.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. The magnitude of change would be up to Medium; resulting in a Major/Moderate level of Effect that would be Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>



Receptor	Assessment
Crumlin	<p>The settlement is located ~4.1km southeast of the Proposed Development and with reference to the ZTVs at Figures 6.2 and 6.3 there is the potential for views of the Proposed Development from parts of the settlement, particularly the elevated western fringes, noting that the ground levels fall away at the northern edge which is flanked by mature woodland that in combination would restrict potential views of the Proposed Development. Due to the relatively high density of housing and varied orientation, it is predicted that views would be restricted from the majority of dwellings within the settlement and any glimpses of the Proposed Development (of up to 8 turbine hubs) would typically only be occasionally available from gardens and streets within the settlement.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. The magnitude of change would be up to Medium but highly localised; resulting in a Major/Moderate level of Effect that would be Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Nantyglo	<p>The settlement is located ~4.2km north of the Proposed Development at the closest point, noting it merges with the adjoining settlement of Blaina and the precise boundary between the two settlements is unclear. Viewpoint 11 taken from the elevated western edge of the settlement is assessed in detail at Appendix 6B.</p> <p>With reference to the ZTVs at Figures 6.2 and 6.3 the majority of the settlement lies within the ZTV, with restricted visibility from the northeastern part of the settlement due to intervening landform. The majority of terrace dwellings within the settlement are orientated east-west and views from within dwellings are predicted to be typically restricted in nature. Views of the Proposed Development would be frequently available from the north-south facing streets as illustrated in Viewpoint 11 Oblique views would be available from the gardens of many properties, particularly from properties on rising land at the eastern side of the settlement.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. The magnitude of change would be Medium to High and an overall Major level of Effect from many parts of the settlement that would be Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Oakdale	<p>The village is located ~4.2km southwest of the Proposed Development. Viewpoint 10 within the settlement is assessed in detail at Appendix 6B.</p> <p>With reference to the ZTVs at Figures 6.2 and 6.3 the majority of the settlement lies within the ZTV, however the relatively high density of buildings within the settlement would restrict views of the Proposed Development from the majority of dwellings. Theoretical views of the Proposed Development from the northern edge of the settlement would be prevented by woodland. Viewpoint 10 was selected as being representative of views from the rear of dwellings on Pen-Y-Fan Way and Prior's Gate, noting that ground level views would be restricted to some degree by garden fencing, outbuildings and planting.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. The magnitude of change would be up to Medium; however no views of the Proposed Development would be available from the majority of dwellings within the settlement, resulting in No change and No effect. Consequently there would be localised Major/Moderate level of Effect from very localised parts of the settlement that would be Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Tredegar	<p>The settlement is 4.8km north-west of the Proposed Development at the closest point. With reference to the ZTVs at Figures 6.2 and 6.3, the overwhelming majority of the town lies outside the ZTV and would have no views of the Proposed Development. The ZTV indicates blade only theoretical visibility from the suburbs of Cefn Golau and Ashvale on the western edge of the settlement. Views from Cefn Golau would be available, however due to dwelling</p>



Receptor	Assessment
	<p>orientation visibility of the development comprising up to 8 blades (no hubs) is likely to be restricted to street level and less frequently rear gardens. No views from Ashvale are predicted due to intervening woodland on higher ground.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. Partial views of the Proposed Development would be experienced intermittently and from isolated locations within the suburb of Cefn Golau and consequently a Low magnitude of effect is assessed that would result in an overall Moderate level of Effect that would be Not Significant as the foreground and middle-ground of views would be dominated by built development. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Blackwood	<p>The settlement is ~5.3km south-west of the Proposed Development at the closest point. With reference to the ZTVs at Figures 6.2 and 6.3, the majority of the town lies within the ZTV apart from parts of the southwest and southeast of the town, where intervening landform would prevent views of the Proposed Development. The ZTV indicates that the hubs of all turbines may be visible from the more elevated western half of the settlement, however in reality the relatively high density of the residential development combined with a gentle landform and local tree cover would restrict opportunities for views of the Proposed Development from many dwellings, noting the majority of dwellings are not orientated towards the Site. Clear views of the Proposed Development would however be available in places including the western end of Apollo Way and from Greenwood Road, however views from the majority of the settlement would be restricted from most locations by built form.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. Given limited visibility a Low magnitude of effect is assessed that would result in an overall Moderate level of Effect that would be Not Significant given the suburban context that would dominate the foreground and middle-ground of any views. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Newbridge	<p>The settlements lies to the south of Crumlin and the northern edge of the suburb of Panside is located ~5.1km south-east of the Proposed Development. With reference to the ZTVs at Figures 6.2 and 6.3, the majority of the town lies outside the ZTV with the notable exception being the northern and western edge of the suburb of Panside. Review in the field indicates that woodland would prevent views of the Proposed Development at the southern end of Panside. Further to the north, hedgerows and mature trees along Old Pant Road and intervening field boundary planting would predominantly restrict visibility at ground level from the settlement edge, however there are several locations where direct views from a limited number of dwellings to all turbines would be available.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Medium magnitude of effect where direct views are available would result in an overall Major/Moderate level of Effect that would be Significant from a localised number of dwellings on Old Pant Road. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Brynmawr	<p>The town is located ~6.2km north-west of the Proposed Development at the closest point. Viewpoint 14 was taken from the residential suburb to the north-west of the town centre and is assessed in detail at Appendix 6B.</p> <p>With reference to the ZTVs at Figures 6.2 and 6.3 the majority of the settlement lies within the ZTV, with the greatest extent of the Proposed Development (up to 6 hubs and 8 blade tips) is predicted from the from the elevated part of the settlement to the northwest of the town centre. The majority of dwellings in this area are orientated south towards the Site and consequently views of the Proposed Development would be frequently available as illustrated in Viewpoint 14. Views from the town centre would be more restricted in nature because of the density of built development and relatively flat ground.</p>



Receptor	Assessment
Abercarn	<p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. The magnitude of change would be Medium and an overall Major/Moderate level of Effect would be experienced from parts of the settlement that would be Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p> <p>The settlement lies ~6.7km south of the Proposed Development and to the south of Newbridge. With reference to the ZTVs at Figures 6.2 and 6.3, the majority of the town lies outside the ZTV with theoretical visibility predicted from the northern tip of the settlement, elevated parts of the eastern edge and also parts of the suburb of Cwmcarn to the south. In reality mature woodland cover close to the settlement edge would restrict visibility of the Proposed Development from these locations.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Very Low magnitude of effect is predicted that would result in an overall Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Pontllanfraith	<p>The settlement lies ~6.7km southwest of the Proposed Development. With reference to the ZTVs at Figures 6.2 and 6.3, the majority of the settlement lies outside the ZTV including most of the northeastern and southwestern suburbs. From the remainder of the settlement within the ZTV, in reality views would be heavily restricted by mature woodland cover close to the settlement edge and within the settlement that would predominantly restrict visibility of the Proposed Development.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Very Low magnitude of effect is predicted that would result in an overall Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Bargoed	<p>The settlement is ~7.2km south-west of the Proposed Development at the closest point. With reference to the ZTVs at Figures 6.2 and 6.3, the majority of the town lies outside the ZTV and would have no views of the Proposed Development. The ZTV indicates that the hubs of all turbines may be visible from the more elevated western edge of the settlement, however in reality the high density of the residential development would restrict opportunities for views of the Proposed Development from many dwellings. Notwithstanding this observation, there would be frequent opportunities for views to the northeast where incidental open space would allow clear views over the roofline of intervening dwellings of the Proposed Development on the skyline.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. Clear views of the Proposed Development whilst intermittent would be frequently experienced from the western edge of Bargoed and consequently a localised Medium magnitude of effect is assessed that would result in an overall Major/Moderate level of Effect that would be Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Tir-y-berth	<p>The village lies ~7.3km southwest of the Proposed Development between Penpedairheol to the west and Pengam to the east. With reference to the ZTVs at Figures 6.2 and 6.3, the majority of the settlement lies within the ZTV. In reality views would be typically restricted by larger scale commercial/retail buildings and mature tree cover east of the A469.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium value, resulting in an overall High sensitivity. A Very Low magnitude of effect from very localised parts of the settlement may be possible in winter resulting in a Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>



Receptor	Assessment
Rassau	<p>The settlement is ~7.6km north-west of the Proposed Development at the closest point. With reference to the ZTVs at Figures 6.2 and 6.3, excluding the large industrial estate to the north of the settlement, theoretical visibility of the Proposed Development increases from east to west across the town as the land rises. In reality, belts of woodland along the southern edge of the settlement and the A4281 corridor would restrict visibility from both the settlement edge and within Rassau. Views of the Proposed Development from the principal residential area would be infrequent and typically comprise glimpses of up to 4 turbine hubs and 6 blade tips, noting the western end of the settlement is predominantly located south of the A4281 and outside the ZTV.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. Partial views of the Proposed Development would be experienced intermittently and from isolated locations within the settlement and consequently a Low magnitude of effect is assessed that would result in an overall Moderate level of Effect that would be Not Significant as the foreground and middle-ground of views would be dominated by built development. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Pontypool	<p>With reference to the ZTVs at Figures 6.2 and 6.3 the overwhelming majority of the town is located outside the ZTV, with several very localised areas within the built-up area over ~7.6km distant indicating theoretical blade visibility (up to 4 turbine blades and no hubs). Review of these locations indicates that visibility would typically be restricted by adjacent dwellings, urban street trees and woodland.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Very Low magnitude of change from very localised parts of the settlement may be possible, particularly in winter and this would result in a Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Penpedairheol	<p>The village lies ~7.9km southwest of the Proposed Development. With reference to the ZTVs at Figures 6.2 and 6.3, the majority of the settlement apart from the northern and western margins lies within the ZTV. In reality views would be typically fully restricted by built development within the settlement on relatively flat land, with theoretical views from the western edge restricted by woodland and mature tree cover.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium value, resulting in an overall High sensitivity. A Very Low magnitude of effect from very localised parts of the settlement may be possible in winter that would result in a Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Hengoed and Cefn Hengoed	<p>The settlements lie ~8.5km southwest of the Proposed Development. With reference to the ZTVs at Figures 6.2 and 6.3, the majority of both settlements lie within the ZTVs apart from the southwestern suburbs of Hengoed. From the remainder of the settlements within the ZTV, in reality views of the Proposed Development would be heavily restricted by surrounding dwellings from the majority of the built-up area although there would be frequent views from properties on and near the northern and western edge of Cefn Hengoed and elevated parts of Hengoed.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. Up to a Medium magnitude of effect is predicted that would result in up to a Major/Moderate level of Effect from localised parts of the settlement at the northern and western fringes of the settlement that would be Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>



Receptor	Assessment
Gelligaer and Penybryn	<p>The settlements are located ~9km south-west of the Proposed Development at the closest point. Viewpoint 16 was taken from Heol Adam, a rural lane outside the settlement and this location is not representative of views that would be obtained from nearby Gelligaer village. With reference to the ZTVs at Figures 6.2 and 6.3 the majority of both settlements lie within the ZTV indicating up to 8 hubs could be visible. The settlements comprise residential development of moderate to high density and when combined with the relatively flat landform these physical factors would substantially restrict views towards of the Proposed Development. At the northern and western edge of the settlements views towards the Proposed Development would be restricted by multiple layers of mature field boundary hedgerows and trees.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Very Low magnitude of change from very localised parts of the settlement may be possible in winter that would result in a Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Maesycwmmmer	<p>The village is located ~9km south-west of the Proposed Development at the closest point. With reference to the ZTVs at Figures 6.2 and 6.3 the more elevated southern part of the village lies within the ZTV where the greatest proportion of development would be theoretically visible. In reality the combination of built development density and intervening mature tree cover would substantially restrict views towards of the Proposed Development beyond the urban development within Blackwood and adjoining settlements. Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Very Low magnitude of change from very localised parts of the settlement may be possible in winter that would result in a Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
<u>Settlements between 10-15km</u>	
Ystrad Mynach	<p>With reference to the ZTVs at Figures 6.2 and 6.3 the overwhelming majority of the town is located outside the ZTV, with theoretical visibility indicated from the town centre in the vicinity of the hospital site and residential development south of Twyn Road, over ~10km distant from the Proposed Development. Review of these locations indicates that visibility would often be restricted by adjacent dwellings, urban street trees and woodland along the edge of Twyn Road and the A469.</p> <p>Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Very Low magnitude of change from very localised parts of the settlement may be possible, particularly in winter and this would result in a Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Crosskeys and Pontywaun	<p>The linear settlements are located ~10km south of the Proposed Development. With reference to the ZTVs at Figures 6.2 and 6.3 theoretical visibility would be greatest from the western edge of the settlement. However, in reality the high density of the predominant terraced housing combined with mature woodland and tree cover would restrict views in the direction of the Site. Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. Zero magnitude of change would result in No View and Not Significant. The nature of these effects would be long-term (reversible), indirect and neutral.</p>
Nelson	<p>The village is located ~11.2km south-west of the Proposed Development at the closest point. With reference to the ZTVs at Figures 6.2 and 6.3 a localised part of the settlement to the south of the centre indicates theoretical views of the Proposed Development (blades only). In reality the combination of built development density and intervening mature tree cover</p>



Receptor	Assessment
	<p>around Nelson Community centre and the adjacent school would substantially restrict views towards of the Proposed Development. Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Very Low magnitude of change from very localised parts of the settlement may be possible in winter that would result in a Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Treharris	<p>The town is located ~11.3km south-west of the Proposed Development at the closest point. With reference to the ZTVs at Figures 6.2 and 6.3 a very localised part of the settlement on the northern elevated edge of the settlement on Springfield Rise indicates theoretical views of the Proposed Development with the remainder of the settlement outside the ZTV. In reality the views would be oblique in nature and frequently restricted at ground level by intervening planting and/or nearby housing. Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Low magnitude of change from Springfield Rise only would result in a Moderate level of Effect that would be Not Significant given the oblique nature of views and the presence of intervening buildings and vegetation in the majority of ground level views. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Llanbradach	<p>The village is located ~12.5km south-west of the Proposed Development. With reference to the ZTVs at Figures 6.2 and 6.3 a very localised part of the western edge of the settlement indicates theoretical views of the Proposed Development with the remainder of the settlement outside the ZTV. In reality the high density of the predominant terraced housing combined with mature woodland and tree cover to the east and north of the housing would restrict views in the direction of the Site. Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Very Low magnitude of change from isolated locations would result in a Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
Caerphilly	<p>The town is located ~14.8km south of the Proposed Development. With reference to the ZTVs at Figures 6.2 and 6.3 only very localised parts of the settlement, predominantly parts of housing estates close to the A469 may have theoretical views of the Proposed Development with the remainder of the settlement outside the ZTV. In reality intervening-built development and tree cover would typically restrict views in the direction of the Site. Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Zero to Very Low magnitude of change from isolated locations would result in No View to a Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
<u>Principal Settlements between 15km-26km</u>	
Usk	<p>The town is located ~16.5km south-west of the Proposed Development. With reference to the ZTVs at Figures 6.2 and 6.3 only very localised parts of the settlement, including dwellings at the northern end of the settlement on the B4598 Abergavenny Road, indicates theoretical views of the Proposed Development (up to 2 blade tips only) with the remainder of the settlement outside the ZTV. In reality the mature tree cover would typically restrict views in the direction of the Site. Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Zero to Very Low magnitude of change from isolated locations would result in No View to a Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>



Receptor	Assessment
Merthyr Tydfil	The town is located west of the Proposed Development. With reference to the ZTVs at Figures 6.2 and 6.3 only very localised parts of the settlement, predominantly the westernmost fringes more than 17.5km from the Site lie within the ZTV (up to 4 blade tips). In reality intervening-built development would frequently restrict views in the direction of the Site. Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Zero to Very Low magnitude of change from isolated locations would result in No View to a Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.
Pontypridd	The town is located ~17km south-west of the Proposed Development. With reference to the ZTVs at Figures 6.2 and 6.3 only very localised parts of the settlement, including part of the northern end and southwestern region of the settlement may afford theoretical views of the Proposed Development with the remainder of the settlement outside the ZTV. In reality intervening-built development and tree cover would typically restrict views in the direction of the Site. Residents have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value, resulting in an overall High sensitivity. A Zero to Very Low magnitude of change from isolated locations would result in No View to a Moderate/Minor level of Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.

Residential Visual Amenity Assessment (RVAA)

- 6.12.12 A Residential Visual Amenity Assessment (RVAA) for the closest settlements and individual dwellings outside of settlement boundaries is contained in **Appendix 6.11. Figure 6.17** identifies these receptors for assessment where they lie within 2km of the proposed turbines and the blade tip ZTV. The receptors assessed comprise parts of the settlements of Abertillery, Aberbeeg, Brynithel and Cwm, and 30 No. individual and small groups of scattered dwellings beyond the settlement boundaries.
- 6.12.13 The RVAA reflects guidance contained in the recent Landscape Institute Technical Information Note⁴⁰ and in addition to identifying the significance of visual effect provides additional assessment of whether the Proposed Development would breach the Residential Visual Amenity Threshold (RVAT) by turning otherwise satisfactory dwellings into unsatisfactory places to live. The experience of a significant view of the Proposed Development is not the same as an unacceptable effect or indicative of a failure in terms of maintaining residential amenity.
- 6.12.14 The analysis on predicted visibility of the Proposed Development has been informed by review of the ZTV (number of hubs and blades theoretically visible, in combination with review of aerial photography and observations in the field. The assessment has been supported by review of nearby visualisations taken from publicly accessible locations (**Viewpoints 1, 3 and 4** in **Figures 6.26, 6.28 and 6.29**).
- 6.12.15 In terms of residential visual amenity, the RVAA concludes that the Proposed Development would not have an overbearing effect or otherwise affect the living standards of individual properties such that any of these would become an unattractive place to live (as opposed to less attractive) when judged objectively, and in the public interest. This is due largely to

⁴⁰ Landscape Institute (2019). Technical Guidance Note 2/19 - Residential Visual Amenity Assessment. (Online). Available at: <https://www.landscapeinstitute.org/technical-resource/rvaa/> (Accessed 07 July 2021)

the intervening distance, topographical screening and set back of the turbines from the edge of the ridge such that the living standards would not be affected and the property would not be adversely affected by 'visual dominance' that it would become an unattractive place to live when judged objectively and in the public interest.

Assessment of visual effects from promoted long-distance footpaths

6.12.16 The assessment of visual effects from promoted long-distance footpaths is set out in **Table 6.23**.

Table 6.23 Assessment of visual effects from promoted long-distance footpaths

Route	Assessment
Routes within 10km	
Ebbw Valley Walk	<p>The route is illustrated on Figure 6.18 and Viewpoint 5, located on the route is assessed in detail at Appendix 6B. The route follows the Ebbw Valley connecting the Sirhowy Valley Country Park ~11.8km south of the Site and terminates near Festival Park to the north. The route passes within ~0.8km of the closest proposed turbine on the lower slopes of Mynydd Pen-y-fan.</p> <p>With reference to the ZTV at Figure 6.18 and review in the field, travelling north from Sirhowy Country Park, the route is initially located within the ZTV in places, noting commercial forestry would largely screen views. Where the route passes north of Abercarn and east of Crumlin views of the Proposed Development would be largely restricted by mature hedgerows with frequent hedgerow trees. Less restricted views are available north of Trinant (Viewpoint 5) where the Proposed Development would be prominent in views. East of Mynydd Pen-y-fan, forestry would restrict visibility of the Proposed Development in places. The closest turbines less than 1km distant, would be visible above younger forestry planting or where the route is set back from the edge of forestry. Travelling south from the edge of Ebbw Vale, unrestricted views of the Proposed Development would be available from higher ground along the ridgeline of Cefn Manmoel.</p> <p>Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero due to intervening landform, and in places screening by intervening vegetation, to a High magnitude of change where less restricted views are available including the Cefn Manmoel ridgeline and parts of the route between the edge of Trinant (Viewpoint 5) and Mynydd Pen-y-fan. The resulting level of effect would range from No View to Major and Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
Sirhowy Valley Ridgeway Walk	<p>The route is illustrated on Figure 6.18 and Figure 6.19. Viewpoint 4, located on the route is assessed in detail at Appendix 6B. The route connects the edge of Newport in the south and Tredegar to the north. The route passes within ~2.1km of the closest proposed turbine on the edge of the village of Manmoel.</p> <p>With reference to the ZTV at Figures 6.18 and 6.19, travelling north from the edge of Newport the route lies outside the ZTV until high ground east of Risca where extensive forestry would restrict views towards the Proposed Development. The route then drops out of the ZTV and south of Blackwood passes through or close to extensive woodland cover that would limit views north towards the Proposed Development. North of Blackwood the route lies outside the ZTV until higher ground south and west of Manmoel where intermittent and oblique views of the Proposed Development would be available through multiple layers of field boundary trees (Viewpoint 4). Travelling south from Tredegar the route predominantly lies outside the ZTV apart from localised sections at Briery Hill and part of the Cefn Manmoel ridgeline where there would be unrestricted views of the Proposed Development.</p>



Route	Assessment
Rhymney Valley Ridgeway Walk	<p>Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero due to intervening landform, and in places screening by vegetation, to a High magnitude of change where clear views are available including intermittent glimpses near Manmoel (Viewpoint 4) and unrestricted views from localised sections of the route at Briery Hill and Cefn Manmoel. The resulting level of effect would range from No View to Major and Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p> <p>The route is illustrated on Figure 6.18 and Figure 6.19. The circular route passes the southern edge of Caerphilly, 18.5km south of the Site and passes within ~9km of the closest proposed turbine within the town of Ystrad Mynach.</p> <p>With reference to the ZTV at Figures 6.18 and 6.19, travelling north from the edge of Caerphilly a section of route lies within the ZTV noting that forestry and local tree cover would restrict views towards the Site. Distant views of the Proposed Development would be possible from a localised section of the route at Mynydd Melo, ~17km distant and higher ground west of Ystrad Mynach up to ~11km distant.</p> <p>Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero due to intervening landform, and in places screening by vegetation, to a Medium to Low magnitude of change where clear views are infrequently available including higher ground west of Ystrad Mynach. The resulting level of effect would range from No View to Moderate and Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
Monmouthshire Way	<p>The Monmouthshire Way is a circular route that passes within the ZTV of the Proposed Development on higher ground to the south-east of Usk within ~20-26km of the closest proposed turbine and from the summit of Sugar Loaf, ~16km north-east of the Site where blade tip only visibility is predicted (Figure 6.19). At closer range (Figure 6.18) the route lies within the ZTV blade tip only for a short section near the centre of Pontypool and from Mynydd Garnlochdy to the north of the town. The principal section of route where visibility is predicted is from higher ground to the east of Abertillery where ~8km of the route lies within the ZTV (hub visibility) and at the closest point the proposed turbines would be ~1.9km distant. The landscape along this route section is open in character typically allowing unrestricted oblique views of the Proposed Development. Where the route passes close to and occasionally between blocks of forestry, views of the Proposed Development would be partially restricted.</p> <p>Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero due to intervening landform, and in places screening by vegetation, to a High magnitude of change east of Abertillery. The resulting level of effect would range from No View to Major and Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
Taith Torfaen Anytime Challenge	<p>The route starts on high ground west of Risca, ~13km south of the Site, with a second branch of the route originating on the edge of Abercarn, ~9km south of the Site (Figure 6.18). The route crosses higher ground north of Risca, including the Twmbarlwn Iron Age Fort (Viewpoint 19). The two routes cross higher ground to the southeast of Pontypool before converging near the town centre. West of Pontypool, the single route crosses higher ground to the east of Abertillery, coinciding with the Monmouthshire Way in places, passing within ~2.2km of the Proposed Development. The route terminates at the summit of the Bloreng (Viewpoint 18).</p> <p>Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. East of Risca where the route lies within the ZTV, following the lower slopes of Mynydd Machen, views</p>



Route	Assessment
	<p>would be partially restricted by woodland and consequently the magnitude of change would be Low with a Moderate effect that would be Not Significant. Closer to the Proposed Development, unrestricted views from the summit of Twmbarlwn Iron Age Fort (Viewpoint 19) would result in a Medium magnitude of change and a Major/Moderate and Significant effect. Southeast of Pontypool, where the routes fall within the ZTV, views towards the Proposed Development, ~6km distant would typically be unrestricted and comprise a Medium magnitude of change with a Major/Moderate and Significant effect. East of Abertillery the route passes within ~2.2km of the closest turbine and frequently lies within the ZTV (hub visibility). The landscape along this route section is open in character typically allowing unrestricted oblique views of the Proposed Development, resulting in a High magnitude of change and a Major effect that is Significant. Views from a short section of the route near the summit of the Blorenge (Viewpoint 18) indicates blade tip visibility and a Very Low magnitude of change and a Moderate/Minor effect that is Not Significant. The nature of all the recorded effects would be long-term (reversible), indirect and neutral to adverse.</p>
Raven Walk	<p>A circular walk above the Sirhowy and Ebbw valleys, south of Abercarn. The majority of the route is located outside the ZTV (Figure 6.18). A section of the route lies within the ZTV southwest of Abercarn ~9km from the Site where views would initially be restricted by forestry, however from open farmland to the west of the forestry, there would be oblique views where the route lies in close proximity to a shooting range and solar farm. The other route section within the ZTV comprises a ~0.5km long section east of Mynydd Machen ~13km south of the Site where the route follows the lower slopes and views would be partially restricted by forestry. Southwest of Abercarn walkers would experience a Medium magnitude of change from parts of a ~2km route section with a Major/Moderate and Significant effect. The nature of the effects would be long-term (reversible), indirect and neutral to adverse.</p>
Bristol to Brecon Walk	<p>Within the study area the route crosses higher ground east of Newbridge on Usk where it passes through Wentwood Forest (Figure 6.19) and crosses the valley of the River Usk before following higher ground east of Blaenavon, including the summit of the Blorenge (Figure 6.18 and Viewpoint 18). After passing through Abergavenny the route crosses land of varying elevation including the summit of Sugar Loaf, Pen-Y-Fan and elevated ground to the east of this mountain.</p> <p>Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero from the majority of the route due to intervening landform, and in places screening by forestry, to a Very Low magnitude of change at the summit of Blorenge (Viewpoint 18), land east of Newbridge on Usk within Wentwood Forest and Pen-Y-Fan. The resulting level of effect would range from No View applying to the overwhelming majority of the route, up to Moderate/Minor and Not Significant from the aforementioned localised sections. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
Cambrian Way	<p>Within the study area the route crosses higher ground in the Brecon Beacons (Figure 6.19), including the summits of Pen-Y-Fan, Craig-y-Fan Du (Viewpoint 23) and Pen Cerrig Calch (Viewpoint 22). Closer to the Site (Figure 6.18) views would be available from the route at Mynydd Llangynidr (Viewpoint 20), The Borenge (Viewpoint 18), Mynydd Garnclochdy/Garn Wen (Viewpoint 15) and Twmbarlwn (Viewpoint 19). Beyond these summits and nearby elevated land, the ZTV indicates no potential for views of the Proposed Development.</p> <p>Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would typically be Zero from the majority of the route with No Effect, due to intervening landform. A Very Low magnitude of change at the summit of Blorenge and Mynydd Garnclochdy/Garn Wen is predicted where blade tips only would be visible and the effect would be Moderate/Minor and Not Significant. A Low/Very Low magnitude is assessed at Craig-y-Fan Du and Pen Cerrig Calch and the effect would be Moderate and Not Significant.</p>



Route	Assessment
Torfaen Trail	<p>A Low magnitude of change is predicted at Mynydd Llangynidr with a Moderate effect that is Not Significant and finally from the route section at Twmbarlwn a Medium magnitude of effect with a Major/Moderate effect that is Significant is assessed. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p> <p>The trail is a figure of eight loop from Cwmbran in the south to Blaenavon in the north. The overwhelming majority of the route is located outside the ZTV (Figure 6.18). Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would typically be Zero from the majority of the route with No Effect, due to intervening landform A section of the route, ~0.7km long falls within the ZTV where it crosses Coety Mountain, ~5km northeast of the Proposed Development. From this very localised section of the route that follows a local valley, oblique views of the Proposed Development would be partially restricted by intervening landform (up to 2 turbine hubs visible) and walkers would experience a Medium magnitude of change with a Major/Moderate and Significant effect. The nature of these very localised effects would be long-term (reversible), indirect and neutral to adverse.</p>
Routes between 10km – 15km	
Usk Valley Walk	<p>The path crosses the eastern and northern part of the study area (Figure 6.18 and Figure 6.19). The overwhelming majority of the route lies outside the ZTV with some localised blade tip only visibility predicted south of Usk and up to 4 hubs also visible (Figure 6.2) on locally elevated ground at Coed-y-caerau where over ~20km from the Site oblique views of the Proposed Development would be available from very localised parts of the route between forestry plantation where areas have been felled. Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium to High value resulting in an overall High sensitivity. The Magnitude of change would range from Zero to Very Low, with No View to a Moderate/Minor effect that would be Not Significant. The nature of these very localised effects would be long-term (reversible), indirect and neutral to adverse.</p>
Iron Mountain Trail	<p>The trail is a figure of 8 route that starts and finishes in Blaenavon and includes the summit of The Blorenge (Figure 6.18 and Viewpoint 18). The route lies outside the ZTV of the Proposed Development apart from blade tip visibility at and near the summit of The Blorenge. Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero from the majority of the route due to intervening landform, to a Very Low magnitude of change at the summit of Blorenge (Viewpoint 18). The resulting level of effect would range from No View applying to the overwhelming majority of the route, up to Moderate/Minor and Not Significant at the summit of The Blorenge. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
Brecon Beacons Traverse	<p>The route is located within the northern part of the study area (Figure 6.18 and Figure 6.19) and passes over several summits within the Brecon Beacons National Park including the closest at Cefn yr Ystrad (Viewpoint 21) that lies ~14.3km from the Proposed Development. Other more distant summits crossed by the route include Pen Cerrig Calch (Viewpoint 22) and Waun Fach further to the north. The route also crosses the summit of Pen-y-Fan to the west that lies within the ZTV near the edge of the 26km radius study area. With reference to the ZTV at Figures 6.18 and 6.19, the majority of the route is located outside the ZTV with visibility from the summits and ridge top paths of the aforementioned high points. Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero experienced from the majority of the route i.e. No View, to a</p>



Route	Assessment
	<p>Low magnitude of change from the closest point to the Proposed Development at Cefn yr Ystrad (Viewpoint 21) where there would be a Moderate effect that is Not Significant. On more distant summits including Pen Cerrig Clach (Viewpoint 22) where walkers would be ~17.6km from the Proposed Development, the magnitude would be Low/Very Low and the overall effect Moderate and Not Significant. The magnitude of change from the more distant high points including Waun Fach and Pen-y-Fan would be Very Low with a Moderate/Minor effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
Cistercian Way	<p>The route is located within the southern part of the study area (Figure 6.18 and Figure 6.19) and connects land northwest of Wentwood Forest in the southeast part of the study area with the town of Treorchy to the west.</p> <p>With reference to the ZTV at Figures 6.18 and 6.19, the overwhelming majority of the route is located outside the ZTV with theoretical localised visibility from higher ground at Wentwood Forest, west of Risca, southwest of Caerphilly and west of Ynysybwl. In reality views from all the aforementioned locations in the direction of the Proposed Development would be prevented by forestry and/or extensive local tree cover.</p> <p>Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would be Zero and the resulting effect No View. The nature of these effects would be long-term (reversible), indirect and neutral.</p>
Beacons Way	<p>The route is located within the northern part of the study area (Figure 6.18 and Figure 6.19) and connects Abergavenny and the A470, crossing land in the Brecon Beacons National Park including several summits.</p> <p>With reference to the ZTV at Figure 6.19, the overwhelming majority of the route is located outside the ZTV with theoretical blade tip visibility from higher ground including Hatterall Hill, Garn Wen and Crug Mawr to the northeast where the magnitude of change would be Very Low and hub visibility from Craig-y-Fan Du (Viewpoint 23), and Pen-y-Fan to the northwest where the magnitude would be Low to Very Low. Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would typically be Zero with No View, increasing to a Moderate to Moderate/Minor effect that is Not Significant from the aforementioned hilltops. The nature of these effects would be long-term (reversible), indirect and neutral.</p>
Celtic Way	<p>The route is located within the southern part of the study area (Figure 6.18 and Figure 6.19) and connects land near Wentwood Forest in the south-east of the study area with Llantrisant to the south-west.</p> <p>With reference to the ZTV at Figures 6.18 and 6.19, the overwhelming majority of the route is located outside the ZTV with theoretical localised visibility from higher ground at Wentwood Forest, northwest of the Twmbarlwm summit (Viewpoint 19) and south of Caerphilly. In reality views from the aforementioned locations would be restricted by forestry and/or extensive local tree cover, apart from the Twmbarlwm summit where open view would be available from a very localised section of the route.</p> <p>Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would typically be Zero with No View from the overwhelming majority of the route and Medium from the Twmbarlwm summit with a Major/Moderate and Significant effect. The nature of these effects would be long-term (reversible), indirect and neutral.</p>
<u>Routes between 20-26km</u>	
Black Mountains Traverse Challenge	<p>The route is located within the northern part of the study area (Figure 6.19) and crosses the A479 in the Brecon Beacons National Park. The overwhelming majority of the route is located</p>



Route	Assessment
	outside the ZTV (Figure 6.19) with theoretical hub visibility from higher ground at Mynydd Troed and Waun Fach, ~23-25km north of the Proposed Development, where the magnitude of change would be Very Low. Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would typically be Zero with No View, increasing to a Very Low magnitude and a Moderate/Minor effect that is Not Significant from the aforementioned hilltops. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.
Cambrian Way Accommodation Option (Danywenallt)	The route is located within the northwestern part of the study area (Figure 6.19) north of Talybont reservoir. The majority of the route is located outside the ZTV (Figure 6.19) with theoretical hub visibility from higher ground at Twyn Ddu and Waun Rydd, ~20-22km north-west of the Proposed Development, where the magnitude of change would be Very Low. Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would typically be Zero with No View, increasing to a Moderate/Minor effect that is Not Significant from the aforementioned locations. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.

Assessment of visual effects from Sustrans National Cycle Routes

6.12.17 The assessment of visual effects from Sustrans National Cycle Routes is set out in **Table 6.24**.

Table 6.24 Assessment of visual effects from Sustrans National Cycle Routes

Route	Assessment
Routes within 10km	
NCR46	The route through the study area connects Hirwaun to rural lanes north-east of Abergavenny (Figure 6.18 and Figure 6.19). The route lies predominantly outside the ZTV and the magnitude of change would typically be Zero from the majority of the route with No Effect , due to intervening landform. Theoretical views are identified by the ZTV from localised sections of the route on the approach and exit from Merthyr Tydfil, within Tredegar, Ebbw Vale and from a ~1.5km route section that passes through the centre of Brynmawr. Whilst fleeting and oblique views of the Proposed Development would be available near settlement edges, views from the majority of the route sections that lie within the ZTV would be restricted by built development and local tree cover. Cyclists on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall High sensitivity. The Magnitude of change from these localised sections would be Low with a Moderate effect that would be Not Significant given the extremely localised and fleeting visibility where the Proposed Development would be glimpsed over ~6.9km distant and set within a foreground and middleground urban context. The nature of these very localised effects would be long-term (reversible), indirect and neutral to adverse.
NCR47	The route through the study area connects Newport in the southeast of the study area to land south of Hirwaun on the western edge of the study area. (Figure 6.18 and Figure 6.19). The route predominantly lies outside the ZTV due to intervening landform. Theoretical views from localised sections of the route are identified south of Pontllanfraith, where the route passes through woodland and there would be no views and also from a short section within the settlement of Risca where built development would restrict views. A section of the route within the ZTV passes through St. Gwynno Forest to the southwest of Mountain Ash. Cyclists on the



Route	Assessment
NCR465	<p>route have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall High sensitivity. The Magnitude of change would be Zero with No Effect that would be Not Significant.</p> <p>The route connects Llanhilleth in the south with Bryn Mawr to the north and follows the base of the valley near the Ebbw Fach River for much of its route, close to the A467 but predominantly along a traffic free route. The majority of the route is located within the ZTV (Figure 6.18) noting that intervening landform restricts theoretical views of typically up to 4 hubs and 4 blade tips (Figure 6.2 and Figure 6.3). Travelling north, cyclists pass through the settlements of Llanhilleth and Aberbeeg where from the on-road route, nearby built development and mature tree cover would predominantly prevent views of the Proposed Development. North-east of Aberbeeg, the route runs close to Victoria Road within woodland and continues along a wooded corridor within Abertillery where oblique views towards the Proposed Development, only ~0.5km distant, are predicted to be predominantly restricted by mature tree cover. Passing through the western edge of Abertillery potential views would be restricted by buildings along Carlyle Street and Glandwr Street. Further north mature woodland along the route would restrict views and the Proposed Development would be located behind the direction of travel.</p> <p>People cycling south from the Brynmawr would have intermittent theoretical visibility (Figure 6.2 and Figure 6.3), although in reality visibility would be restricted by built development and local tree cover along the route. Upon reaching Nantyglo the route follows a separate surfaced route, due south alongside the A467. The highway corridor is flanked by mature woodland along both sides that restricts potential views of the Proposed Development. Cyclists on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall High sensitivity. Less restricted views of up to 6 turbine tips and 4 turbine hubs would be available for a ~0.7km route section extending from the southern end of Blaina to the Roseheyworth Business Park, ~1.1km from the Proposed Development at the closest point. The magnitude of change from this localised route section ~0.7km long would be High, but from the remainder of the route there would be Very Low or no change. The resulting level of effect would range from No effect from the majority of the route to Major and Significant from a localised ~0.7km route section, south of Blaina. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
NCR466	<p>The route connects Aberbeeg in the south and Rassau in the north, passing through Ebbw Vale (Figure 6.18 and Figure 6.3). Travelling north from Aberbeeg the route passes through mature woodland where oblique views out towards the Proposed Development are typically restricted and upon reaching the southern end of Cwm cyclists would have passed the Proposed Development. Travelling south from Rassau, the route lies predominantly outside the ZTV with theoretical glimpses of up to 2 No. blade tips in the suburb of Glyncoed (Figure 6.2) predicted to be restricted by intervening buildings. The route lies outside the ZTV further to the south as cyclists pass through Ebbw Vale town centre. The ZTVs predict views from the route on the approach to the hospital and along Festival Drive, although in reality these would be largely restricted by trees and woodland close to the route. The route then passes through the housing estate at Victoria where buildings would limit the opportunities for views towards the Proposed Development. At the northern edge of Cwm there would be direct views of up to 2 turbine hubs and 4 blade tips above the settlement as cyclists progress along Canning Street (Figure 6.2 and Figure 6.3). At the southern end of Canning Street the cycle route follows residential streets along the western edge of Cwm, with the ZTV indicating more restricted visibility. Views in the direction of the Proposed Development would also become more restricted because of intervening buildings within the settlement. South of Cwm, the route passes through mature woodland where oblique views towards the Proposed Development are restricted. Cyclists on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall High sensitivity. The Magnitude of change experienced by cyclists would range from Zero to Low with No View to a Moderate effect that would be Significant from a localised section of</p>



Route	Assessment
	<p>the route along Canning Street, at the northern end of Cwm. The nature of these localised effects would be long-term (reversible), indirect and neutral to adverse.</p>
NCR467	<p>The route connects Blackwood and follows minor roads along the Sirhowy Valley to the north (Figure 6.18). Travelling north from Blackwood the off-road route close to the A4048 is flanked by mature tree belts and views in the direction of the Proposed Development are heavily restricted. Further north the route continues within woodland, passing Markham and lying outside of the ZTV. Cyclists on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall High sensitivity. The Magnitude of change would be Zero with No Effect that would be Not Significant. The nature of these effects would be long-term (reversible), indirect and neutral.</p>
<u>Routes between 10-15km</u>	
NCR423	<p>The route is located between Cwmbran and Monmouth and within the study area intermittently falls within the ZTV along rural lanes to the northeast of Cwmbran and the edge of Usk (Figure 6.18 and Figure 6.19). Views would be typically prevented by mature roadside hedgerows and trees with potential fleeting glimpses, particularly in winter. Cyclists on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value resulting in an overall High sensitivity. The magnitude of change would typically be Zero and the resulting effect No View and where the Proposed Development is intermittently visible the magnitude of change would be Very Low with a Moderate/Minor effect that is Not Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
<u>Routes between 15-26km</u>	
NCR4	<p>The route is located within the southern part of the study area and with reference to the ZTV at Figure 6.18 and Figure 6.19, the overwhelming majority of the route is located outside the ZTV. Theoretical localised visibility is indicated from the route where it crosses higher ground, southwest of Caerphilly and southwest of Pontypridd. In reality views southwest of Caerphilly would be prevented by forestry and views from the route southwest of Pontypridd would be typically prevented by mature roadside hedgerows and trees with potential fleeting glimpses particularly in winter. Cyclists on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of a Medium to High value resulting in an overall High sensitivity. The magnitude of change would typically be Zero and the resulting effect No View. Cyclists on the route section southwest of Pontypridd would experience a Very Low magnitude with a Moderate/Minor effect that is Not Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>

Assessment of visual effects from Historic Parks and Gardens, Golf Courses, Country Parks, PRow and Open Access Land

6.12.18 The assessment of visual effects from Historic Parks and Gardens, Golf Courses, Country Parks, PRow and Open Access Land is set out in **Table 6.25**.



Table 6.25 Assessment of visual effects from Historic Parks and Gardens, Golf Courses, Country Parks, PRow and Open Access Land

Receptor	Assessment
Receptors within 10km	
Pen-y-fan Pond County Park	<p>The receptor is illustrated on Figure 6.20 and Viewpoint 6, is located within the park and assessed in detail at Appendix 6B.</p> <p>With reference to the ZTV at Figure 6.20 the majority of the park lies within the ZTV and comprises a large pond with a perimeter path. Views north towards the site are partly restricted by tree cover in places (Viewpoint 6), noting that less restricted views of the Proposed Development predicted from the footpath along the southern margins of the pond. Users of the park have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall High sensitivity. The magnitude of change would range from Low (northern edge of pond) to Medium (southern edge of Pond). The resulting level of effect would range from Moderate and Not Significant (Viewpoint 6) to Major/Moderate and Significant along much of the southern edge of the Park. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
Blackwood Golf Club	<p>With reference to the ZTV at Figure 6.20 the majority of the course lies within the ZTV over ~5.2km to the southwest of the Site. Mature tree cover to the northeast periphery of the golf course and mature woodland in the centre of the course would restrict opportunities for views towards the Proposed Development.</p> <p>Users of the golf course have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude of change would range from Zero to Medium. The resulting level of effect would range from No View to Moderate and Not Significant given the intermittent and restricted nature of views. Less restricted views, no greater than a Medium magnitude. Would also be available from the sports pitches south of the golf course on higher ground, however given the lower sensitivity of users no significant effects are predicted. The nature of the effects experienced by users of the golf course would be long-term (reversible), indirect and neutral to adverse.</p>
Bargoead Golf Club	<p>Figure 6.20 indicates the majority of the course lies within the ZTV, however mature tree cover that is largely continuous along the fairways of each hole would restrict the potential for views of the Proposed Development, noting some views of the turbines to hub level are predicted in place especially at the northeastern end of the course where views to the wider landscape in the direction of the Site, over ~6.5km distant, would be less restricted.</p> <p>Users of the golf course have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude of change would range from Zero to Medium. The resulting level of effect would range from No View to Moderate and Not Significant given the intermittent and restricted nature of views from the majority of the golf course. The nature of the effects experienced by users of the golf course would be long-term (reversible), indirect and neutral to adverse.</p>
Pontypool Golf Club	<p>Figure 6.20 indicates that the north-eastern end of the course lies within the ZTV however mature tree cover that is largely continuous along the fairways of each hole would restrict the potential for views of the Proposed Development, over ~7km distant. Some views of the blade tips only are predicted over lower parts of the planting on the golf course because the part of the course within the ZTV is at a higher elevation.</p> <p>Users of the golf course have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude of change would range from Zero to Very Low. The resulting level of effect would range from No View to Minor and Not Significant. The nature of the effects experienced by users of the golf course would be long-term (reversible), indirect and neutral to adverse.</p>



Receptor	Assessment
Pontypool Historic Park	Figure 6.20 indicates that there is theoretical blade tip visibility from parts of the southern part of the park, however extensive mature tree cover within and surrounding the perimeter of the park would restrict views of the Proposed Development, over ~7.5km distant. Users of the park have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall High sensitivity. The magnitude of change would be Zero with No View.
Brynback County Park	Figure 6.20 indicates that the northern edge of the lake and southeastern end of the park lie within the ZTV (blade tips only) however mature tree cover would restrict the potential for views of the Proposed Development, over ~8km distant. Some views of the blade tips only are predicted over the woodland planting along higher ground at the park perimeter. Users of the park have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium to High value resulting in an overall High sensitivity. The magnitude of change would range from Zero to Low. The resulting level of effect would range from No View to Moderate and Not Significant given the limited and restricted nature of views from the park. The nature of the effects experienced by users of the park would be long-term (reversible), indirect and neutral to adverse.
Parc Cwm Darran County Park	Figure 6.20 indicates that a small proportion of the southern end of the park lies within the ZTV, however the majority of land here is private farmland and visibility of the Proposed Development, over ~6.8km distant would only be available from a short section of a PRoW on the boundary of the park near Pen Y Garreg Farm. The car parks, visitor centre, picnic areas, fishing lake, camp site, nature reserve and cycle way that comprise the core attractions of the park all lie outside the ZTV. Users of the country park have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium to High value resulting in an overall High sensitivity. The magnitude of change for those visiting the park's attractions would be Zero. The resulting level of effect would be No View.
Parc Penallta Country Park	Figure 6.20 indicates that parts of the northern edge of the park lie within the ZTV, however the visibility of the Proposed Development, over ~9.7km distant would in reality only likely be available from the Observatory at an elevated location, with views from lower slopes screened by woodland cover. Users of the country park have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium to High value resulting in an overall High sensitivity. The magnitude of change would range from Zero to Medium. The resulting level of effect would range from No View to Major/Moderate and Significant from the Observatory. The nature of the effects experienced by users of the park would be long-term (reversible), indirect and neutral to adverse.
Sirhowy Valley Country Park	Figure 6.20 indicates that parts of the park lie within the ZTV, however all these areas are overlapped by forestry and no views of the Proposed Development over ~9km to the north is predicted. Users of the country park have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium to High value resulting in an overall High sensitivity. The magnitude of change would be Zero. The resulting level of effect would be No View.
Open Access land and PRoW within 5km of proposed turbines	Figure 6.20 indicates that a large proportion of the upland landscape to the north and east of the Site, above the settlements in the valleys is designated as open access land and also contains a high density of PRoW. High points where the Proposed Development would be prominent include Cefn Yr Arail in close proximity to the northernmost turbine, Mynydd Carn y Cefn to the north (Viewpoint 9 – see Appendix 6B), Mynydd James, Coety Mountain and Twyn Pentre to the northeast. Unrestricted views would also be available from parts of the open access land and PRoW at Cefn Manmoel and Darne Ddu to the northwest and elevated land to the east and south east of Abertillery. Views would also be available of the access



Receptor	Assessment
	<p>tracks and the grid connection on wooden poles., from the PRoW that cross the Cefn Bach plateau and traverse its western slopes.</p> <p>Users of the open access land have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium to High value resulting in an overall High sensitivity. The magnitude of change would range from Zero to High. The resulting level of effect would range from No View to Major and Significant. The nature of the effects experienced by users of the open access land would be long-term (reversible), indirect and neutral to adverse.</p>
<p>Open Access land and PRoW between 5km-10km to the north, west, west, south-west and south-east of the Site</p>	<p>Figure 6.20 indicates that a proportion of the upland landscape to the north and west of the Site designated as open access land falls within the ZTV. A detailed assessment from individual viewpoints referenced below is at Appendix 6B. Users of the open access land have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium to High value, resulting in an overall High sensitivity. Locations where the Proposed Development would be clearly visible with hub visibility include, Mynydd Bedwellte (Viewpoint 12), Rhymney Hill, Cefn Y Brithdir (Viewpoint 13), Mynydd Langatwg (Viewpoint 17) and Gelligaer Common. Unrestricted views would also be available from elevated parts of the open access land to the southeast at Mynydd Llywyd, Mynydd Maen and Mynydd Twn-glas. At these locations the magnitude of change would range from Zero to Medium or High/Medium. The resulting level of effect would range from No View to Major or Major/Moderate and Significant. The nature of the effects experienced by users of the open access land would be long-term (reversible), indirect and neutral to adverse.</p>
<p>Open Access land between 5km-10km to the east and north-east of the Site</p>	<p>Figure 6.20 indicates that a limited proportion of the upland landscape to the east and northeast of the Site designated as open access land falls within the ZTV. A detailed assessment from individual viewpoints referenced below is at Appendix 6B. Users of the open access land have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium to High value, resulting in an overall High sensitivity. Blade tip visibility is predicted from open access land to the east at Mynydd Garnlochdy (Viewpoint 15) and the northeast at the Bloreng (Viewpoint 18). At these locations the magnitude of change would range from Zero to Very Low. The resulting level of effect would range from No View to Moderate/Minor and Not Significant. The nature of the effects experienced by users of the open access land would be long-term (reversible), indirect and neutral to adverse.</p>
<p><u>Receptors between 10-15km</u></p>	
<p>Aberfan Cemetery and Garden of Remembrance</p>	<p>Figure 6.20 indicates that the cemetery and garden of remembrance to the east of the A470 lie outside the ZTV, however visibility of the Proposed Development, over ~13.5km distant would be available from the restored colliery slopes to the east of the A470, however this land is not crossed by any PRoW or has open access rights.</p> <p>Taking a precautionary approach, should permissive access be available then it is predicted that any walkers would have a High susceptibility to change and the views in the direction of the Site over the A470 corridor are assessed to be of Medium value resulting in an overall High sensitivity. The magnitude of change would range from Zero to Low. The resulting level of effect would range from No View to Moderate and Not Significant given that views of the Proposed Development would not be available from the principal areas comprising the cemetery and gardens of remembrance. The nature of the effects experienced would be long-term (reversible), indirect and neutral to adverse.</p>
<p>Whitehall Golf Club</p>	<p>Figure 6.20 indicates the majority of the course lies within the ZTV, however tree cover within the golf course would restrict the potential for views of the Proposed Development. Views of the turbines to hub level are predicted near the southern end of the course where the Proposed Development would be over ~13km distant.</p>



Receptor	Assessment
	<p>Users of the golf course have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude of change would range from Zero to Low. The resulting level of effect would range from No View to Moderate/Minor and Not Significant. The nature of the effects experienced by users of the golf course would be long-term (reversible), indirect and neutral to adverse.</p>
<p>Woodlake Golf Club</p>	<p>Figure 6.20 indicates the majority of the course lies within the blade tip the ZTV, with the Proposed Development over ~13km distant to the west. Frequent tree cover within and to the periphery of the course would frequently restrict views of the Proposed Development. Users of the golf course have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude of change would range from Zero to Very Low. The resulting level of effect would range from No View to Minor and Not Significant. The nature of the effects experienced by users of the golf course would be long-term (reversible), indirect and neutral to adverse.</p>
<p><u>Receptors between 15-26km</u></p>	
<p>Morlais Castle Golf Club</p>	<p>Figure 6.20 indicates the majority of the course lies outside the ZTV, apart from elevated ground near the western boundary where the Proposed Development would be over ~15km distant. Users of the golf course have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude of change would range from Zero to Low. The resulting level of effect would range from No View to Moderate/Minor and Not Significant. The nature of the effects experienced by users of the golf course would be long-term (reversible), indirect and neutral to adverse.</p>
<p>Bertholey House Historic Garden</p>	<p>Figure 6.21 indicates that the historic gardens would be located within the ZTV, however visibility of the Proposed Development, over ~20km distant would partially restricted by mature tree cover close to the house. Visitors to the park would have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall High sensitivity. The magnitude of change would range from Zero to Very Low. The resulting level of effect would range from No View to Moderate/Minor and Not Significant. The nature of the effects experienced would be long-term (reversible), indirect and neutral to adverse.</p>
<p>Rhondda Golf Club</p>	<p>Figure 6.21 indicates the majority of the course lies outside the ZTV, with the exception of higher ground at the south-eastern corner of the course. The Proposed Development would be over ~21.5km distant to the west. Users of the golf course have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude of change would range from Zero to Very Low. The resulting level of effect would range from No View to Minor and Not Significant. The nature of the effects experienced by users of the golf course would be long-term (reversible), indirect and neutral to adverse.</p>
<p>Caerphilly Golf Club</p>	<p>Figure 6.21 indicates the majority of the course lies outside the ZTV, with the exception of higher ground at the south-western end of the course. The Proposed Development would be ~18km distant and in reality, views would be fully screened by forestry that surrounds the southwestern end of the course. Users of the golf course have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude of change would be Zero with No View.</p>
<p>Mountain Lakes Golf Club</p>	<p>Figure 6.21 indicates the majority of the course lies outside the ZTV, with the exception of higher ground at the northern end of the course. The Proposed Development would be ~19.5km distant and some very localised views of the Proposed Development, limited by tree cover, are predicted to be available. Users of the golf course have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting</p>



Receptor	Assessment
	in an overall Medium sensitivity. The magnitude of change would range from Zero to Very Low. The resulting level of effect would range from No View to Minor and Not Significant. The nature of the effects experienced by users of the golf course would be long-term (reversible), indirect and neutral to adverse.

Assessment of visual effects from locally promoted walking routes within 5km of the proposed turbines

6.12.19 The assessment of visual effects from locally promoted walking routes within 5km of the proposed turbines is set out in **Table 6.26**.

Table 6.26 Assessment of visual effects from locally promoted walking routes within 5km of the proposed turbines³⁵

Route	Assessment
Tyleri Trails: Walk 1 - Riverside	The route has been assessed in relation to the ZTV at Figures 6.2 and 6.3 and follows the Ebbw River and Old Blaina minor road in a loop at the northwest edge of Abertillery. Walkers would pass within ~0.5km of the closest proposed turbine. There would be theoretical views of up to 6 turbine blade tips and up to 4 hubs from the route, in reality heavily restricted by tree cover along the majority of the route. Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero due to intervening landform, and in places screening by intervening vegetation, up to a High magnitude of change where less restricted views are available. The resulting level of effect would range from No View to Major and Significant . The nature of these effects would be long-term (reversible), indirect and neutral to adverse.
Tyleri Trails: Walk 2 - Park Heights	The route has been assessed in relation to the ZTV at Figures 6.2 and 6.3 and follows public rights of way on the north-eastern facing slopes of Cefn Bach, largely enclosed by forestry and then follows the edge of forestry along the open plateau top, within ~0.2km of the proposed turbines where unrestricted views of the Proposed Development would be available including the access tracks and views of the easternmost part of the grid connection on wooden poles. Walkers on the route have a High susceptibility to change and the views are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero in places due to screening by intervening landform and forestry, to a High magnitude of change from the Cefn Bach Plateau. The resulting level of effect would range from No View to Major and Significant . The nature of these effects would be long-term (reversible), indirect and neutral to adverse.
Tyleri Trails: Walk 3 - Guardian Trail	The route has been assessed in relation to the ZTV at Figures 6.2 and 6.3 and follows the Ebbw River in a loop at the southern end of Abertillery including Parc Arael Griffin and the Guardian sculpture. The route would pass within ~1.2km of the closest proposed turbine. There would be theoretical views of up to 2 turbine blade tips but no hubs from parts of the route, however in reality views would be heavily restricted by tree cover along the majority of the route. Walkers on the route have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero due to intervening landform, and in places screening by intervening vegetation, to a Low magnitude of change where occasional glimpses of up to 2 blade tips may be available. The resulting level of effect would range from No View to Moderate and Not Significant given the very limited opportunity for oblique views of blade



Route	Assessment
<p>Tyleri Trails: Walk 4 – Guardian Heights</p>	<p>tips and where the main focus is the river corridor. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p> <p>The route has been assessed in relation to the ZTV at Figures 6.2 and 6.3 and follows the public byway (diverted to accommodate the proposed development) and other PRoW on the ridge passing Hafod-y-dafal, the solar farm and the edge of the Cefn Bach plateau top, within ~0.2km of the proposed turbines where unrestricted views of the Proposed Development would be available including the access tracks and views of the easternmost part of the grid connection on wooden poles.</p> <p>Walkers on the route have a High susceptibility to change and the views are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero in places including the A467 due to screening by intervening landform, to a High magnitude of change from the majority of the route on the elevated land that includes the Cefn Bach plateau. The resulting level of effect would range from No View to Major and Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
<p>Tyleri Trails: Walk 5 – Three Parishes</p>	<p>The route has been assessed in relation to the ZTV at Figures 6.2 and 6.3 and follows PRoW across open moorland and forestry with part of the route following residential streets on the southeastern edge of Abertillery. The route is located within ~1.3km of the proposed turbines where unrestricted views of the Proposed Development would be available.</p> <p>Walkers on the route have a High susceptibility to change and the views are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero in places including where the route passes through forestry, to a High magnitude of change from the majority of the route on elevated land southeast of Abertillery. The resulting level of effect would range from No View to Major and Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
<p>Tyleri Trails: Walk 6 – Coity Heights</p>	<p>The route has been assessed in relation to the ZTV at Figures 6.2 and 6.3 and follows PRoWs and tracks within open access land on elevated ground east of Abertillery. The route is located within ~1.9km of the proposed turbines where unrestricted views of the Proposed Development would be available.</p> <p>Walkers on the route have a High susceptibility to change and the views are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero in places including where the route passes over lower ground at Cwm Sychan, to a High magnitude of change from the majority of the route on elevated land. The resulting level of effect would range from No View to Major and Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
<p>Tyleri Trails: Walk 7 – Mynydd James</p>	<p>The route has been assessed in relation to the ZTV at Figures 6.2 and 6.3 and with reference to nearby Viewpoint 1. The route follows PRoW and tracks within open access land on elevated open ground east of Abertillery. The route is located within ~1.2km of the proposed turbines where unrestricted views of the Proposed Development would be available.</p> <p>Walkers on the route have a High susceptibility to change and the views are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero in the majority of places including where the route passes through woodland or is restricted by intervening landform close to the car park near the start of the walk. A High magnitude of change would be experienced from the majority of the route in locations including the edge of Abertillery, close to Viewpoint 1. The resulting level of effect would range from No View to Major and Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
<p>Tyleri Trails: Walk 8 – Hidden Treasures</p>	<p>The route has been assessed in relation to the ZTV at Figures 6.2 and 6.3 follows PRoW and minor roads in a loop around Cwmtillery Lakes and is located within ~2.3km of the Proposed Development.</p>



Route	Assessment
	<p>Walkers on the route have a High susceptibility to change and the views are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero where intervening landform, reinforced by local tree cover prevents views, up to a Medium magnitude of change around the southeastern and western parts of the route where partial glimpses of the proposed turbines would be available (typically up to 2 turbine hubs and 4 turbine blade tips). The resulting level of effect would range from No View to Major/Moderate and Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
Tyleri Trails: Walk 9 – Tyleri Valley Heights	<p>The route has been assessed in relation to the ZTV at Figures 6.2 and 6.3 and follows PRoW and some minor roads at the northern edge of Abertillery including elevated land on the slopes of Coety Mountain. The trail is located ~2.3km from the Proposed Development at the closest point.</p> <p>Walkers on the route have a High susceptibility to change and the views are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero where intervening landform, reinforced by local tree cover, prevents views, up to a High magnitude of change where unrestricted and extensive views of 8 turbine hubs would be available from higher ground along the eastern and north-eastern part of the route. The resulting level of effect would range from No View to Major and Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>
Ebbw Fach Trail	<p>The route connects the Beaufort Hill Woodlands and the Hafod Arch in the north to the Llanhilleth Colliery Memorial to the south, via the national cycle network and PRoWs. The route has been assessed in relation to the ZTV at Figures 6.2 and 6.3 and the trail is located ~0.7km from the Proposed Development at the closest point.</p> <p>Walkers on the route have a High susceptibility to change and the views are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would be Zero where intervening landform, reinforced by local tree cover, prevents views and includes Parc Arael Griffin and the Llanhilleth Colliery memorial. Up to a High magnitude of change would be available from parts of the route through Abertillery and near Cwmtillery Lakes. The resulting level of effect would range from No View to Major and Significant. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.</p>

Assessment of visual effects from Transport Routes (A and B roads)

6.12.20 The assessment of visual effects from Transport Routes (A and B roads) is set out in **Table 6.27**.

Table 6.27 Assessment of visual effects from Transport Routes (A and B roads)

Route	Assessment
<u>Receptors within 10km</u>	<p>All main routes within the study area are illustrated in Figure 6.1. The location of main routes within the ZTV and 15km of the proposed turbines and shown in Figures 6.2 and 6.3. Main routes within the ZTV over 15km from the proposed turbines are shown in Figure 6.19 in addition to recreational receptors.</p>
A465 (Heads of the Valley Road)	<p>The majority of the route is a dual carriageway within the Study Area between the settlements Hirwaun to the northwest and Abergavenny to the northeast. With reference to the ZTV at Figure 6.19 the majority of the route is located outside the ZTV. The most distant section of the route within the ZTV is west of Merthyr Tydfil where for people in eastbound vehicles descending towards the town there is the potential for clear, but fleeting views of the Proposed Development on the horizon over ~14km distant, seen in the context of passing</p>



Route	Assessment
	<p>traffic on the opposite carriageway, road signs, pylons crossing the road and lighting columns. Parts of the route between Merthyr Tydfil and Brynmawr fall within the ZTV as shown in Figure 6.2 and Figure 6.3, however in reality the overwhelming majority of the sections within the ZTV are either located in cut and/or are flanked by built development and/or tree cover along the highway embankments. A notable exception is a ~0.8km section of the route on the approach to Bute Town where less restricted views of the Proposed Development, ~11km distant, would be available across traffic passing on the opposite carriage way and in the context of nearby pylons.</p> <p>Road users on this dual carriageway have a Low susceptibility to change and the views in the direction of the Site on the distant horizon are assessed to be of Low to Medium value resulting in an overall Low sensitivity. The magnitude of change from visibility of the proposed turbines on the distant horizon ~11 to ~14km distant would be Low, but typically from the route there would be no change. The resulting level of effect would range from No effect from the majority of the route to Minor and Not Significant from the aforementioned localised sections. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
A467	<p>The route passes from the edge of Newport in the southeast to Brynmawr in the north of the Study Area, passing within 0.6km of the proposed turbines on the southwestern edge of Abertillery. For road users travelling north from Newport, theoretical views are predicted by the ZTV south of Crosskeys in Figure 6.2, however in reality views would be screened by mature woodland along this section of the route. Further north the route follows an alignment close to the valley base and is frequently flanked by mature woodland and occasionally by built development, including within or along the edge of the communities of Cwmcarn, Abercarn, Newbridge and Crumlin. Within 5km of the Proposed Development northbound road users pass along the edge of Llanhileth and Glandwr, however mature woodland flanks the route and views are predicted to be largely restricted, even in winter. The route descends to Aberbeeg and after the roundabout junction with the A4046, passes northeast along the lower valley slopes towards Abertillery with the route predominantly lying outside the ZTV in Figure 6.2. Within the settlement of Abertillery the A467 is consistently flanked by mature tree cover, noting that whilst the ZTVs at Figures 6.2 and 6.3 indicate the potential for views of up to 6 turbine tips and 4 turbine hubs, in reality these views would be oblique in nature and predominantly heavily filtered, even in winter. Passing through Abertillery the Proposed Development would be behind the receptors. Travelling southwards from Brynmawr, the A467 passes through Brynmawr, to the west of Nantyglo and near the western edge of Blaina. The ZTVs indicate visibility, however in reality mature woodland flanking the route would restrict views of the Proposed Development from the majority of this route section. Less restricted views of up to 6 turbine tips and 4 turbine hubs would be available for a ~0.7km route section extending from the southern end of Blaina to the Roseheyworth Business Park, ~1.1km from the Proposed Development at the closest point.</p> <p>Road users have a Medium susceptibility to change and the views in the direction of the Site on the distant horizon are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude of change from this localised route section ~0.7km long would be High, but from the remainder of the route there would be Very Low or no change. The resulting level of effect would range from No effect from the majority of the route to Major/Moderate and Significant from a localised ~0.7km route section, south of Blaina. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
A472	<p>The road connects the town of Usk, ~18km east of the Proposed Development to the town of Abercynon ~13km southwest of the Proposed Development. The route lies outside the ZTV apart from a ~4km stretch of dual carriageway along the southern edge of the settlements of Newbridge and Pontllanfraith. Apart from a fleeting glimpse of the Proposed Development, ~8.3km distant available to eastbound road users for less than 200m across an overbridge east of the junction with the B4251, are otherwise predicted to be fully screened, even in winter, by mature woodland and tree cover along the route, frequently located on embankments.</p>



Route	Assessment
	<p>Road users on this dual carriageway have a Low susceptibility to change and the views in the direction of the Site on the distant horizon are assessed to be of Low to Medium value resulting in an overall Low sensitivity. The magnitude of change from very fleeting visibility of the proposed turbines on the distant horizon ~8.3km distant would be Low, but typically from the route there would be no change. The resulting level of effect would range from No effect from the majority of the route to Moderate/Minor and Not Significant from the overbridge near the junction with the B4251. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
A4046	<p>The route links the centre of Aberbeeg, 1.1km south of the Proposed Development, with the northern edge of Ebbw Vale. Between Aberbeeg and Cwm the highway is flanked by mature woodland of mixed coniferous and deciduous species on steep slopes that would screen views of the proposed turbines, noting that the ZTVs in Figures 6.2 and 6.3 indicate, in any event, would be predominantly screened by intervening landform. The overhead grid connection on wooden poles would be fleetingly visible alongside a forest track at close range in the context of existing lattice pylons that, in close proximity to the grid connection, lie several metres from the A4046. As northbound road users enter the settlement of Cwm, the Proposed Development would be behind the traveller and would also falls outside the ZTVs at this point. Southbound road users travelling from the northern suburbs of Ebbw Vale to the centre of Cwm lies outside the ZTVs apart from the northern end near the roundabout junction with Waun-Y_Pound and College Road where theoretical glimpses of up to 4 blade tips and 2 turbine hubs would be available, over 6.8km distant, although predicted to be predominantly screened by tree planting around the Tesco Superstore. Views would also be available the southern suburb of Waun Lwyd, however within the settlement views would be screened by dwellings and mature woodland along the route. Restricted, but consistent direct views from the route would be available after passing through Ebbw Vale on the approach to Cwm. With reference to the ZTVs in Figures 6.2 and 6.3 and the Viewpoint 3 photomontage views are predicted to be restricted to 2 blade tips and hubs or less, but, in reality with intervening forestry this is more likely to comprise a single blade tip. Viewpoint 3 was taken from Mill Terrace on the overbridge above the A4046, and consequently views from the carriageway beneath would be more restricted by intervening tree cover, buildings and other structures close to the carriageway.</p> <p>Road users have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Low to Medium value resulting in an overall Medium sensitivity. The magnitude of change from localised sections of the route within Ebbw Vale and Cwm would be Low, but typically from the route there would be no change. The resulting level of effect would range from No effect from the majority of the route to Moderate/Minor and Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
A4047	<p>The route connects the A465 to the A4048 between Brynmawr and Tredegar, passing through these settlements and the community of Beaufort. The ZTVs in Figures 6.2 and 6.3 indicate approximately 40% of the route lies outside the ZTV and where theoretical visibility is indicated, primarily within Brynmawr and the route between the edge of Beaufort and Tredegar, potential oblique views of the Proposed Development would be typically fully screened by built development close to the road corridor and mature trees along the perimeter of public opens space. Viewpoint 14 is only ~90m north of the A4047, however located on significantly more elevated land, and consequently is not representative of views from the A4047 that would be screened by residential properties close to the road corridor. Views towards the Proposed Development between Beaufort and Tredegar would be restricted by a combination of mature tree cover flanking the route and/or a variety of built form comprising a range of residential, industrial, and retail units.</p> <p>Road users have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Low to Medium value resulting in an overall Medium sensitivity. The magnitude of change would be No Change with No Effect.</p>



Route	Assessment
A4048	<p>This road, broadly routed north-south connects the A472 at the settlement of Pontllanfraith to the town of Tredegar, predominantly along the Sirhowy Valley. With reference to the ZTVs in Figures 6.2 and 6.3 the majority of the route i.e. north of the village of Markham, lies outside the ZTV. For northbound road users travelling from the edge of Pontllanfraith and the northern suburbs of Blackwood, the route lies outside the ZTVs. Between the northern edge of Blackwood and Markham the road follows a sinuous route along the valley side Whilst the ZTVs indicate intermittent visibility from this route section, in reality views would be largely restricted by mature tree cover and occasionally built development e.g. at Argoed, flanking the route. Notable exceptions are the oblique views that would be available from the Chartist bridge on the northeastern edge of Blackwood, with the Proposed Development fleetingly visible on the skyline ~5.7km distant (up to 8 tips and 4 hubs visible). Travelling further north views are typically screened by mature tree planting close to the road corridor and where theoretical blade only visibility is predicted including at Argoed, near the northern edge of Blackwood, the tips of turbines would be a minor component in oblique fleeting views, set above intervening landform with the horizon defined by hedgerow trees and woodland. North of Markham the A4048 is bordered by mature tree cover and whilst the ZTVs indicate that fleeting glimpses of the Proposed Development may be available for a ~1km section of the route, including up to 4 hubs and 8 blade tips, in reality views even in winter of the Proposed Development would be heavily filtered.</p> <p>Road users have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude of change from very localised sections of the route would be Low, but typically from the route there would be no change. The resulting level of effect would range from No effect from the majority of the route to Moderate/Minor and Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
A4281	<p>The route connects the A465 near Rassau with the southern end of the town of Ebbw Vale. With reference to the ZTVs in Figures 6.2 and 6.3 only road users along a ~2km section of the route within the built-up area of Rassau and Ebbw Vale have the potential for any views of the Proposed Development. Review in the field indicates that built development and tree planting along the route would fully screen views from the majority of this ~2km section with intermittent direct views most likely from College Road where up to 4 blade tips and 2 hubs may be visible, typically over ~7km distant and seen both fleetingly and intermittently in the context of foreground tree planting, road signage, lighting columns and other urban development.</p> <p>Road users have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium to Low value resulting in an overall Medium sensitivity. The magnitude of change from very localised sections of the route would be Very Low, but typically from the route there would be no change. The resulting level of effect would range from No effect from the majority of the route to Minor and Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
B4251	<p>The route connects the villages of Crumlin, ~4.5km south of the Proposed Development, with Crosskeys ~11.5km to the south, passing through Oakdale and the western suburbs of the towns of Blackwood and Pontllanfraith. With reference to the ZTVs in Figures 6.2 and 6.3 theoretical views of the Proposed Development would be restricted to a ~0.8km section of the route for northbound road users to the west of the Pen-Y -Fan industrial estate, northeast of Oakdale and for northbound road users from a ~4km long section of the route located within the built-up areas of Blackwood and Pontllanfraith. From both the aforementioned route sections views would be fully restricted by mature tree cover and built development along the route. South of Pontllanfraith the B4251 follows the Sirhowey Valley and the ZTVs indicate that views of the Proposed Development would be fully screened by intervening landform.</p> <p>Road users have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Low to Medium value resulting in an overall Medium sensitivity. The magnitude would be No Change with No Effect.</p>

Route	Assessment
B4254	<p>The route connects the southern edge of Blackwood and the village of Nelson to the west and the closest point is routed ~6.5km south of the Proposed Development. The ZTVs in Figures 6.2 and 6.3 indicate theoretical views of the Proposed Development would be available from a ~0.8km east-west section of the route within Blackwood where in reality views would be fully restricted by nearby residential development. Theoretical visibility of the Proposed Development is indicated for people in eastbound vehicles from a ~2.5km route section between Tophill Farm, ~10km southwest of the Proposed Development and the edge of Pengam. In reality views are predicted to be fully restricted by intervening built development and mature hedgerows and trees along the route. Viewpoint 16 is located ~100m from the B4254, however the viewpoint is located on a minor road and close to a public right of way. This viewpoint is not representative of the substantially more restricted and fore-shortened views of the surrounding landscape that would be experienced by road users along the B4254. Road users have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Low to Medium value resulting in an overall Medium sensitivity. The magnitude would be No Change with No Effect.</p>
B4471	<p>The road connects the settlements of Aberbeeg in the north, ~1km south of the Proposed Development with Swffryd to the south, ~4.5km to the southeast. The route follows the valley side and where not passing through built development is typically flanked by mature woodland. The ZTVs in Figures 6.2 and 6.3 indicate theoretical views of the Proposed Development would be available from localised stretches of the route including a ~1km section northwest of Brynithel, and a ~2km section between Llanhileth and Swffryd, however in reality views from these sections of the B4471 would be predominantly restricted by mature tree cover and built development. A notable exception within the aforementioned route sections is the less restricted views that would be available to northbound road users at the northern end of Swffryd for ~300m (of up to 8 turbine hubs and 8 turbine tips theoretically visible) before the highway north of the settlement drops in elevation and becomes flanked by mature woodland that would largely screen views of the Proposed Development, even in winter. Another exception to typically restricted views of the Proposed Development from the route is the increasingly open views as northbound road users descend into Aberbeeg, passing the junction with Victoria Road where the closest turbine would be ~1.2km distant and prominent on the skyline (up to 2 turbine hubs and 6 turbine tips theoretically visible). Similar views would not be available to residents of nearby dwellings on the B4471 that face west away from the Proposed Development.</p> <p>Road users have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Low to Medium value resulting in an overall Medium sensitivity. The magnitude of change from very localised sections of the route would be Medium to High, but typically from the route there would be no change. The resulting level of effect would range from No effect from the majority of the route to Major/Moderate and Significant from localised sections at the northern end of Swffryd and further north where the road descends to Aberbeeg. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
B4511	<p>The road connects the A4048 and A4049 to the northeast of Aberbargoed, passing through the community of Markham and within ~30m of Viewpoint 8 on Abernant Road. The ZTVs in Figures 6.2 and 6.3 indicate theoretical views of the Proposed Development would be available from the majority of the route, although theoretical visibility is reduced within the settlement of Aberbargoed. In reality views would fully restricted for northbound vehicles from the southern end of the route passing through Aberbargoed as a result of nearby residential properties and beyond the settlement edge by mature woodland and tree cover alongside the route. At the edge of Markham and travelling northwards through the village there would be direct views of the Proposed Development, ~3.7km distant on the skyline (up to 8 turbine tips and hubs), with the full horizontal extent of the wind farm partially screened by built development and street trees within the settlement. Less restricted views, similar to Viewpoint 8, would be available along the settlement edge to the east, before the B4511 turns south and the Proposed Development would be behind the road users. For northbound road users</p>



Route	Assessment
	<p>travelling from Argoed, the ZTVs in Figures 6.2 and 6.3 indicate the role of landform in screening all turbine hubs, with visibility of up to 8 turbine tips, however views would often be partially restricted by built development and tree planting close to the road. Less restricted, oblique views of the Proposed Development are available on the approach to Markham and from the eastern part of the settlement as previously described for road users travelling towards Argoed.</p> <p>Road users have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude of change from the majority of the route between and through Markham and Argoed would be Medium to High, but elsewhere from the route, including within the settlement of Aberbargoed, there would be no change. The resulting level of effect would range from No effect to Major/Moderate and Significant from the majority of the route. The nature of these effects would be long-term (reversible), indirect and adverse.</p>
B4591	<p>The route connects the settlement of Abercarn, ~7km south of the Proposed Development with Newport, ~17km to the southeast. The majority of the route lies outside the ZTV as illustrated in Figures 6.2 and 6.3 where theoretical views of the Proposed Development are indicated intermittently from the northern end of the route where the road passes through Crosskeys and Abercarn. In reality, views would be fully restricted by built development along the route, reinforced by local tree cover.</p> <p>Road users have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Low to Medium value resulting in an overall Medium sensitivity. The magnitude would be No Change with No Effect.</p>
Receptors between 10-15km	
A449	<p>The route within the Study Area connects Newport and Raglan and at the closest point lies ~18.5km east of the Proposed Development. With reference to the ZTV in Figure 6.19 intermittent theoretical visibility of the Proposed Development is indicated between the outskirts of Newport and Usk, however in reality mature woodland and tree cover along the route, even in winter is predicted to provide an effective screen to any oblique views of the Proposed Development. Road users on the dual carriageway have a Low susceptibility to change and the views in the direction of the Site are assessed to be of Low to Medium value resulting in an overall Low sensitivity. The magnitude would be No Change with No Effect.</p>
A4233	<p>The route within the Study Area is located southwest of Aberdare and at approximately 22.5km west of the Proposed Development a section of the route lies within the blade tip ZTV of the Proposed Development in Figure 6.19. In reality local landform close to the road and forestry along the route, would provide an effective screen to any oblique views towards the Proposed Development. Road users have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude would be No Change with No Effect.</p>
B4235	<p>The road lies east of Usk between ~18km and 26km east of the Proposed Development. The western end of the route for ~2km falls within the blade tip ZTV in Figure 6.19, however theoretical views of the Proposed Development for westbound traffic are predicted to be fully screened by roadside tree cover and planting associated with the nearby A449 corridor. An additional section of the route south of the hamlet of Gaer-fawr lies within the hub ZTV, however the route in this location is bordered by woodland and no views towards the Proposed Development are predicted. Road users have a Medium susceptibility to change and the views in the direction of the Site are assessed to be of Medium value resulting in an overall Medium sensitivity. The magnitude would be No Change with No Effect.</p>



Night-time Visual effects

Methodology

- 6.12.21 As set out in detail in **Appendix 6J** the likely visibility of the hub height aviation warning lights on all proposed turbines has been assessed from a representative selection of viewpoints.
- 6.12.22 The viewpoints selected for the night-time survey correspond with those identified in relation to the day-time photographic survey and are concentrated in locations where members of the public may be undertaking activities at night. They were selected either due to their proximity to the Proposed Development, or as a result of requests from consultees for their inclusion (i.e. from within the Brecon Beacons National Park) and are as follows:
- Viewpoint 1: North-eastern Abertillery (**Figure 6.26k**);
 - Viewpoint 3: Cwm (**Figure 6.28h**);
 - Viewpoint 5: Northern edge of Cwm-Nant-Gwynt (**Figure 6.30h**); and
 - Viewpoint 18: The Bloreng (b) (**Figure 6.43h**).
- 6.12.23 The location of these viewpoints is shown on **Figures 6.2** and **6.3**.
- 6.12.24 Professional judgement regarding the likely level of effect associated with night-time lighting visible from each viewpoint. It should be noted that night-time visualisations have not been included as they cannot accurately reproduce the likely appearance of night-time lighting in relation to the existing baseline view and would not therefore enhance the understanding of the impacts for the informed decision maker.
- 6.12.25 **Appendix 6J** sets out a detailed assessment of the visual impact of the Proposed Development on night-time views. In some instances visual receptors will have a lower sensitivity to changes to night-time views than to changes to their daytime views as explained at Section 1.2 of **Appendix 6J**.

Settlements

- 6.12.26 Night-time views from Abertillery, the closest settlement to the Proposed Development, were assessed with reference to Viewpoint 1 where the closest turbine would be ~1.2km distant (**Figure 6.26k**). A total of five of the proposed turbine hubs and associated aviation warning lights would be visible in oblique views for drivers and their passengers travelling along Attlee Avenue and users of the highway footpath but in direct views from nearby properties on Attlee Avenue. The aviation warning lights would appear as five points of red light above a dark horizon and would be regularly spaced across approximately 74° of the horizontal FoV. This lighting would be incremental to and visible above existing static light sources in the view. The activity of receptors in their home at night is likely to alter from the day-time (i.e. resting with their curtains drawn) and the extent to which residents' attention is likely to be focussed on their views at night is likely to be lower than in day-light hours. As a consequence, the sensitivity of receptors at or

close to this viewpoint at night is assessed as Medium. The magnitude of change would be Medium and the overall effect Moderate and Not Significant.

- 6.12.27 Night-time views from the northern edge of Cwm-Nant Gwynt and Trinant were assessed with reference to Viewpoint 5 where the closest turbine would be ~2.1km distant (**Figure 6.30h**). The hubs and associated aviation warning lights of all eight turbines would be visible across approximately 24° of the horizontal FoV with the closest turbine 2.1km distant. The aviation warning lights would appear a small, red points of light within views which already contain a moderate level of static light sources. As a consequence, the proposed lighting would be incremental to and visible above existing static light sources in the view. The sensitivity of receptors at or close to this viewpoint at night is assessed as Medium. The magnitude of change would be Low and the overall effect Moderate/Minor and Not Significant.
- 6.12.28 Night-time views from the settlement of Cwm were assessed with reference to Viewpoint 3 (**Figure 6.28h**). There would be no views of the hubs of turbines within the Proposed Development with landform screening all views of the turbines within the exception of a single turbine blade. As a consequence, there would be no views of aviation warning lights associated with the Proposed Development.
- 6.12.29 Views from other settlements where some level of hub visibility is predicted and significant day time effects have been assessed comprise parts of Brynithel, Llanhilleth, Blaina, Markham, Swffyrdd, Crumlin, Nantyglo, Oakdale, Newbridge, Brynmawr, Bargoed, Hengoed and Cefn Hengoed. In all settlements the sensitivity of receptors in their home at night is likely to alter from the day-time (i.e. resting with their curtains drawn) and the extent to which residents' attention is likely to be focussed on their views at night would be lower than in day-light hours. Consequently a Medium sensitivity is assessed. Partially restricted and/or distant views of the aviation lighting would likely comprise a Low to Very Low magnitude of change, resulting in a Minor to Moderate/Minor effect that is Not Significant from these settlements.

Brecon Beacons National Park

- 6.12.30 Night-time views from the Brecon Beacons National Park were assessed with reference to Viewpoint 18 where the closest turbine would be ~10km distant (**Figure 6.43h**). The centre of the view features a dark skyline and no static or mobile light sources, several clusters of distant static light sources are visible within the surrounding towns which occupy valley positions. It is recognised that the BBNP is an International Dark Sky Reserve, although the viewpoint at The Blorenge is not located within the Core Zone or the Critical Core Zone although it does lie within the Buffer Zone which covers the remainder of National Park area. The sensitivity of receptors would be High. No hubs and the associated aviation warning lights would be visible from this viewpoint with only the blade tips of turbines T1, T3, and T5 visible above intervening landform. The magnitude of change would be Zero and there would be no effect.
- 6.12.31 No other night-time views from the National Park were requested by consultees, however the closest daytime views from the designation (Viewpoints 17, 20 and 21) where hub visibility and potential night-time views of aviation lighting could be experienced in the context of closer static lighting within Brynmawr, Tredegar and nearby settlements have

been considered. From these locations near the southern boundary of the National Park, the aviation warning lights at over 9.7km distance would appear as very small, barely perceptible red points of light near the horizon in views. As a consequence, the proposed lighting would be incremental to and visible above existing static light sources within the settlements that would be present in the views and are unlikely to represent more than a Very Low magnitude of change, with a Moderate/Minor effect that is Not Significant.

Grid Connection

- 6.12.32 The introduction of the grid connection and wooden poles would have limited visibility beyond the immediate grid connection route experienced by High sensitivity recreational users of PRow close to the route, residents of an isolated cluster of dwellings along the A4046 (Receptor 30 detailed in **Appendix 9K**), and to a lesser extent fleeting views experienced by users of the NCR 466 along the A4046. The grid connection would be seen in the context of much taller lattice tower pylons that run broadly parallel with the A4046, together with occasional lighting columns and telegraph poles. The wayleave itself would be contained within the surrounding forestry whilst the regular spacing of wooden poles of the grid connection through the wayleave and in close proximity to the tree trunks of the coniferous forestry trees reducing its visual contrast. The magnitude of change would not exceed Low and the level of operational effect would therefore be Moderate, adverse and Not Significant.

6.13 Assessment of cumulative (inter-project) effects

- 6.13.1 A preliminary cumulative effects assessment (CEA) has been undertaken for the Project which considers the combined impacts with other developments on the same single receptor or resource (inter-project effects). The detailed method followed in identifying and assessing potential cumulative effects is set out in **Section 2.8 of Chapter 2**.
- 6.13.2 The landscape and visual cumulative assessment is concerned with the evaluation of the effects that could be generated were the Mynydd Carn y Cefn Wind Farm to become operational along with some or all of the other wind energy developments that are either already operational, have been consented or are proposed i.e. planning application or scoping opinion, within an extended 28 km radius cumulative study area. The wind energy developments that are included are shown on **Figure 6.4** and section 1.5 of **Appendix 6A** sets out full details of the methodology for the cumulative assessment.
- 6.13.3 The cumulative landscape and visual assessments have considered the total cumulative effect upon landscape and visual receptors arising from the introduction of the eight turbines at the proposed Mynydd Carn y Cefn Wind Farm into the baseline scenarios of operational, consented and planning application and scoping opinion wind energy developments. The key consideration is the impact of the additional or incremental effect that would be generated by the introduction of the proposed Mynydd Carn y Cefn Wind Farm. In particular, the cumulative assessment considers the potential for the introduction of the Mynydd Carn y Cefn wind turbines into the various cumulative baseline scenarios to increase the cumulative magnitude of change so that the combined level of cumulative effect sustained by a landscape or visual receptor also increases. This increase could potentially result in a cumulative landscape or visual effect that would be significant with

Mynydd Carn y Cefn's turbines present that would otherwise be not significant if the Mynydd Carn y Cefn's turbines were not present.

- 6.13.4 The landscape effects resulting from the operation of Mynydd Carn y Cefn Wind Farm alone are described in **Appendices 6C to 6H** and **Sections 6.9 to 6.11**. The visual effects resulting from the operation of Mynydd Carn y Cefn Wind Farm alone are described in **Appendix 6I** and **Section 6.12**. Significant landscape and visual effects are summarised in **Table 6.28** and are restricted to a range of receptors within ~11 km of the Proposed Development. As the level of effect experienced in any cumulative scenario cannot be less than that predicted in relation to Mynydd Carn y Cefn alone, it is established that the visual receptors listed in **Table 6.28** would necessarily experience significant visual effects as a result of the incremental effect of the introduction of Mynydd Carn y Cefn Wind Farm into any cumulative scenario as well. The focus of this assessment is therefore to identify which, if any, of the landscape or visual receptors that would not experience significant effects as a result of the introduction of Mynydd Carn y Cefn Wind Farm alone, may experience significant effects as a result of the incremental contribution of Mynydd Carn y Cefn Wind Farm. Where a landscape or visual receptor was predicted to experience a Minor level of effect in relation to the baseline scenario (as summarised in **Tables 6.13 to 6.14** for landscape receptors and in **Table 6.21** for visual receptors), it is not considered that there are any circumstances in which that level of incremental effect could result in significant effects in a cumulative scenario and these receptors are excluded from this assessment. As a result, this assessment is restricted to considering those landscape and visual receptors predicted to experience Moderate (not significant) or Moderate/Minor levels of effect in relation to Mynydd Carn y Cefn Wind Farm alone.
- 6.13.5 The cumulative assessment is based around two development scenarios, as set out in current best practice guidance produced by NatureScot (*Assessing the cumulative landscape and visual impact of onshore wind energy developments 2021*). Scenario One includes other operational (and under construction) and consented wind energy developments; Scenario Two includes proposed wind energy developments (subject of a formal planning application or Scoping Opinion/Direction). It should be recognised that in reality, not all of these wind energy developments may be granted planning consent, and as such, the second scenario is a worst-case scenario that may never come to pass.
- 6.13.6 As described in **Section 6.4** of this chapter and set out in **Table 6.6**, the assessment considers 66 wind energy developments within the 28km radius cumulative study area. These wind energy developments and their status reflects the situation prevailing at the time of the cut-off point for inclusion which was April 2022. The CLVIA only assesses the effects during the operational period. This is because the construction period is comparatively brief and it is not possible to know which of the identified wind energy developments in the cumulative study area would be operational or being constructed during Mynydd Carn y Cefn Wind Farm's construction period.
- 6.13.7 In accordance with the LVIA's underlying approach of assessing the worst-case scenario, the CLVIA assumes that all the wind energy developments proposed at the time of the assessment have become operational. However, it is acknowledged that a CLVIA can never be an exact prediction of the situation that will exist during the 30 year long operational period because it is unlikely that all the proposed wind energy developments will be

operational. In addition, whilst new wind energy developments will become operational others will be decommissioned, re-powered or extended.

- 6.13.8 As specified in the methodology set out in Section 1.5 of **Appendix 6A**, the cumulative visual assessment considers simultaneous visibility i.e. where turbines at more than one wind energy development could be visible from a fixed viewpoint in both simultaneous or fixed views (one 90° field of the visual receptor's view) or successive views (when the visual receptor turns through a full 360°) as well as sequential visibility when receptors would have the potential to have views of more than one wind energy development as they travel along a route e.g. a main road, long distance trail or a national cycle route.
- 6.13.9 With regard to potential cumulative effects upon landscape designations and landscape character (in the form of the local landscape designations and the Brecon Beacons National Park), consideration has been given to the potential for wind turbines to generate the following types of cumulative effect:
- The wind energy developments could be perceived as separate isolated man-made features within or from a landscape designation in a manner that would be too infrequent or of insufficient scale or prominence for their turbines' presence to be considered to undermine the valued attributes of a landscape designation;
 - The wind energy developments could be perceived as becoming a characteristic of a landscape designation but would not attain sufficient prominence to be considered to alter the valued attributes of a landscape designation – this is referred to as a 'landscape with wind farms'; and
 - The wind energy developments could be perceived as becoming a dominant characteristic of part of a landscape designation, potentially redefining it as a 'wind farm landscape' and/or as conflicting with the valued attributes of a landscape designation.
- 6.13.10 **Figures 6.22 – 6.25** illustrate the ZTVs for the wind energy developments within the cumulative study area that are most likely to contribute to significant effects with Mynydd Carn y Cefn, considering proximity and turbine size. These figures show the blade tip height ZTVs for each wind farm group in relation to the blade tip ZTV for Mynydd Carn y Cefn Wind Farm. When reviewing the ZTV figures it should be noted that although the cumulative study area has a 28km radius, the radii for the ZTVs for the individual wind energy developments has been kept to a maximum of 26km radius.
- 6.13.11 The CLVIA has been aided by the production of 360° cumulative wireframes from the same 23 viewpoints that have been used in the visual assessment. The figures show wireframes for each quadrant of the compass to allow an appreciation of the other wind energy developments that could be visible to visual receptors at or close to the viewpoint's location. In these views Mynydd Carn y Cefn's turbines might be visible in the same 90° field of views as other turbines i.e. simultaneous views, or in other directions around the full potential 360° field of view i.e. successional views. Where visibility of wind turbines would be restricted by intervening buildings or planting this is recorded in the Viewpoint Assessment at **Appendix 6I**. The viewpoint locations Nos. 1-21 are shown in **Figures 6.2 & 6.3**, viewpoint locations Nos. 22 & 23 are shown in **Figure 6.19**, and the cumulative wireframes are shown in **Figures 6.26 – 6.48**.

Scenario One: Cumulative Landscape Effects

- 6.13.12 In Scenario One, the proposed development at Mynydd Carn y Cefn Wind Farm would be physically separate and distinct from all other cumulative wind energy developments. As such, it is considered that there would be no significant cumulative effect upon landscape elements and patterns.
- 6.13.13 **Section 6.11** and **Table 6.20** sets out the landscape effects upon local landscape designations predicted to result from the operation of Mynydd Carn y Cefn Wind Farm together with the operational wind farms that form part of the baseline scenario for the main LVIA. That assessment identified that significant landscape effects would be experienced by the host Mynydd Carn y Cefn and Cefn yr Arail Special Landscape Area and parts of five nearby local landscape designations (i.e. 1. Eastern Ridge and Mynydd James Special Landscape Area, 2. Cwm Tyleri and Cwm Celyn Special Landscape Area, 5. Cefn Manmoel Special Landscape Area, 8. St. Illtyd Plateau and Ebbw Eastern Sides Special Landscape Area, and 21. Manmoel Very Important Local Landscape).
- 6.13.14 Ten operational wind energy schemes are located within the five local landscape designations and up to ~5km from Mynydd Carn y Cefn (i.e. Pen Y Fan Ganol Farm, Blaentillery Farm, Coed y Gillfach Farm, Cruglwyn, Gelli-wen Farm, Penrhiwgwaith Farm, Pen-yr-heol Farm, Bedlwyn Farm, Groesfaen Farm and Cefn Bach Farm). Whilst these operational turbines have a minor incremental role in each of the effects upon the landscape designations, the significance or otherwise of the effects is not dependent upon the interaction between these operational wind turbines and Mynydd Carn y Cefn, and significant effects would arise in relation to Mynydd Carn y Cefn alone. The closest consented schemes comprising the 31m high vertical axis wind turbines at Penyfan Leisure Park and the 36m tall turbine at Tir Y Ferch Gryno Farm would not have any appreciable interaction with the Mynydd Carn y Cefn turbines due to their modest scale.
- 6.13.15 Mynydd Carn y Cefn is located within the Priority Area 14 for wind energy and the fact the local landscape designations cover the majority of elevated land above the settled valleys within the study area, means this degree of landscape change would be in accordance with the implicit objective of the policy to accept landscape change within and immediately adjacent to Priority Areas in order to contribute towards Wales renewable energy targets.
- 6.13.16 In Scenario One a reduced magnitude of landscape change has been assessed to occur as a result of the operation of Mynydd Carn y Cefn upon 10 additional local landscape designations where Moderate or Moderate/Minor effect have been recorded, as described in **Section 6.11** and **Table 6.20** (i.e. Mynydd Bedwellty & Rhymney Hill and Sirhowy Valley SLA, Trefil and Garnlydan Surrounds SLA, Beaufort Common SLA, Western Uplands SLA, Upper Rhymney Valley SLA, Gelligaer SLA, Mynydd Eglwysilan SLA, Mynydd Islwyn SLA, Northern Rhymney Valley VILL, and Abercarn VILL). With reference to **Figure 6.16** these local landscape designations typically lie within ~5km to ~10km of the Mynydd Carn y Cefn Wind Farm with the exception of the Trefil and Garnlydan Surrounds SLA and the Mynydd Eglwysilan SLA that have a separation distance of between ~10km and 15km.
- 6.13.17 With reference to **Figure 6.4**, 14 operational wind energy schemes lie within ~5km to ~15km of the Proposed Development and given their typical modest scale, separation and locations outside the local landscape designations, these wind energy schemes would

have a minor incremental role in combination with the indirect effects upon landscape character resulting from the Mynydd Carn y Cefn Wind Farm, as acknowledged in the baseline LVIA. Over the same distance range, the 14 operational wind energy schemes would be supplemented by a further three consented wind energy schemes, also located outside the local landscape designations with a corresponding very minor incremental role to the effects upon landscape character resulting from the Mynydd Carn y Cefn Wind Farm that would be not significant.

- 6.13.18 In conclusion, the absence of significant cumulative landscape effects does not differ to those predicted in relation to the baseline scenario used for the main body of the LVIA, where it is assessed that the indirect effects from the Mynydd Carn Y Cefn Wind Farm on local landscape designations beyond ~5km would not be significant.
- 6.13.19 With regard to potential cumulative effects upon the Brecon Beacons National Park, Viewpoints 20 and 21 illustrate the weakness of the visual effects pathway between these areas and Mynydd Carn y Cefn Wind Farm and also the minor incremental effect that the geographically limited presence of the Mynydd Carn y Cefn Wind Farm would have upon this nationally designated landscape. Consequently under Scenario One the introduction of Mynydd Carn y Cefn Wind Farm would not result in any significant cumulative landscape effects upon the Brecon Beacons National Park.

Scenario One: Cumulative Visual Effects

- 6.13.20 A review of **Table 6.21** indicates that visual receptors that are predicted to experience Moderate (not significant) or Moderate/Minor levels of visual effect in relation to the baseline scenario include parts of 19 settlements (i.e. Ebbw Vale, Tredegar, Blackwood, Abercarn, Pontllanfraith, Tir-y-berth, Rassau, Pontypool, Penpedairheol, Gelligaer/Penybryn, Maescwmmer, Ystrad Mynach, Nelson, Treharris, Llanbradach, Caerphilly, Usk, Merthyr Tydfil and Pontypridd). In the majority of cases, the potential for visibility of multiple wind energy schemes from settlements is limited by surrounding built development. The magnitude of change to views from these settlements as a result of operational and consented wind energy schemes is typically very low to low and the addition of the Mynydd Carn y Cefn Wind Farm would not raise the overall magnitude to a significant level. Parts of Rassau may already experience locally significant visual effects from the combination of the operational and consented turbines at the Rassau Industrial Estate and to a lesser extent the operational turbines at Eurocaps premises, Crown Business Park. The addition of the Mynydd Carn y Cefn Wind Farm in southeast facing views from Rassau would only contribute a low magnitude to an already significant effect. Parts of Tredegar may experience significant effects as a result of the Pen Bryn Oer turbines to the west of the settlement, although these potential views are predominantly restricted by intervening forestry near the settlement edge. Views from Tredegar towards Mynydd Carn y Cefn to the southeast, representing a low magnitude of change, would not be available in the same field of view as the Pen Bryn Oer wind turbines, and opportunities for successive views would be infrequent due to intervening built development.
- 6.13.21 With reference to **Table 6.21** the recreational visual receptors that are predicted to experience Moderate (not significant) or Moderate/Minor levels of visual effect would be confined to 22 receptors including parts of promoted footpaths, national cycle routes and recreational open space i.e. Taith Torfaen Anytime Challenge, Bristol to Brecon Walk, Usk

Valley Walk, Iron Mountain Trail, Brecon Beacons Traverse, Beacons Way, Black Mountains Traverse Challenge, Cambrian Way Accommodation Option (Danywenallt), NCR46, NCR466, NCR423, NCR4, Pen-y-fan Pond Country Park, Blackwood Golf Club, Bargoead Golf Club, Brynback Country Park, Open Access land to the east and north-east, Aberfan Cemetery and Garden of Remembrance, Whitehall Golf Club, Morlais Castle Golf Club, Bertholey House Historic Garden, and Tyleri Trails: Walk 3 – Guardian Trail. The magnitude of change to the views available to these receptors as a result of operational and consented wind energy schemes is typically very low to low and the addition of the Mynydd Carn y Cefn Wind Farm would not raise the overall magnitude to a significant level. Several exceptions to this occur where the operational and consented turbines result in significant visual effects in their own right. Such an effect would be experienced from a localised section of the NCR46 within and near Rassau due to visibility of the operational Eurocaps Premises, Crown Business Park. The addition of the Mynydd Carn y Cefn turbines in views from the NCR46, whilst not significant in their own right, would result in successive visibility of wind turbines from receptors where an already significant visual effect would be experienced under Scenario One.

- 6.13.22 In terms of potential combined, successive, and sequential cumulative impact upon highways, with reference to **Table 6.21** the highway receptors that are predicted to experience Moderate (not significant) or Moderate/Minor levels of visual effect would be confined to parts of the A4048 and A4046 to the east of the Site. Non-significant effects would be experienced by road users travelling in both directions along the A4048 resulting from the sequential visibility of the well separated operational wind turbines at Cruglwyn and Pen Y Fan Ganol Farm, although locally significant effects would be experienced at Argoed from the views of operational turbines at Oakdale Business Park/Pen-Y-Fan Industrial Estate. The introduction of Mynydd Carn y Cefn, in more distant oblique views from the A4048 at Argoed would slightly reinforce the already significant effects of the much closer operational turbines at Oakdale Business Park/Pen-Y-Fan Industrial Estate, however Mynydd Carn y Cefn would not increase the frequency or duration of views including wind turbines that would be available to road users along the A4048. With reference to **Viewpoint 3**, illustrating typical views from the A4046 in Cwm, views of operational and consented wind turbines from the A4046 are very limited from the route with the Pen-Y-Ganol Farm turbine being visible but not representing a significant visual effect. The introduction of the Mynydd Carn y Cefn Wind Farm to this scenario would not be sufficient to raise the overall magnitude of change to produce any significant cumulative effects.
- 6.13.23 Overall, it is assessed that there is no potential for the introduction of the Mynydd Carn y Cefn Wind Farm into this scenario to result in significant visual effects where these would not arise in relation to either Mynydd Carn y Cefn or one of the other included baseline wind farms alone.

Scenario Two: Cumulative Landscape Effects

- 6.13.24 This section considers the incremental landscape effects that may arise from the introduction of Mynydd Carn y Cefn Wind Farm into a scenario in which all the operational and consented wind energy schemes in the cumulative study area are considered, together with the proposed wind energy schemes i.e. planning application and Scoping

Opinion/Direction. It is particularly concerned with the potential for the operation of Mynydd Carn y Cefn Wind Farm to result in the expansion of any significant effect upon landscape designations as a result of an interaction/s with proposed wind energy schemes.

- 6.13.25 The nearest additional wind energy scheme that would be introduced into this scenario is the single turbine at Silent Valley, approximately 2.5km to the northwest of Mynydd Carn y Cefn Wind Farm. Whilst the introduction of this single wind turbine would have significant landscape effects within the Mynydd Carn-y-Cefn and Cefn yr Arail SLA, the visual effects pathway between the two wind farms by virtue of the valley of Cwm Merddog is relatively weak, as illustrated in the ZTV in **Figure 6.25**. Consequently the introduction of the wind turbines at Mynydd Carn y Cefn would reinforce the significant effects upon the Mynydd Carn-y-Cefn and Cefn yr Arail SLA around the Silent Valley turbine, although there would be no potential to notably increase the extent of the designation significantly affected by wind turbines i.e. there would be no significant cumulative landscape effect.
- 6.13.26 The sites of the Scoping Opinion wind farm schemes at Mynydd Llanhilleth, Abertillery and Manmoel are located approximately 2.7km to the south-east, 2.9km to the north-east and 2.5km to the northwest of the Mynydd Can Y Cefn Wind Farm respectively. With reference to the ZTVs at **Figures 6.22 and 6.23**, should all three scoping Wind Farms become operational, they would give rise to significant landscape character effects within the Mynydd Carn y Cefn and Cefn yr Arail Special Landscape Area i.e. the host SLA that the Mynydd Carn y Cefn Wind Farm is located within in addition to significant effects within each of the Scoping schemes host local landscape designations and adjoining local landscape designations including the Eastern Ridge and Mynydd James Special Landscape Area, Cwm Tyleri and Cwm Celyn Special Landscape Area, Cefn Manmoel Special Landscape Area, St. Illtyd Plateau and Ebbw Eastern Sides Special Landscape Area, 21. Manmoel Very Important Local Landscape. Consequently the addition of the Mynydd Carn y Cefn Wind Farm to this scenario would only reinforce, but not extend the significant landscape character effects within the local landscape designations established as a result of the other Scoping schemes, with reference to the cumulative wirelines at **Viewpoints 4, 5, 9 and 12** taken from within the local landscape designations.
- 6.13.27 The Scoping Opinion scheme of Twyn Hywel is located ~12km to the south-west of Mynydd Carn y Cefn Wind Farm within the Mynydd Eglwysilan SLA. With reference to the ZTV at **Figure 6.24**, and the cumulative wirelines at **Viewpoints 16 and 19** taken from within the local landscape designations, the addition of the Mynydd Carn y Cefn Wind Farm to this scenario would only have a modest contribution to the overall magnitude of landscape change within the Mynyddislywn SLA that would be significant as a result of the Twyn Hywel Wind Farm.
- 6.13.28 The Scoping Opinion scheme of Pen March is located ~12.5km to the northwest of Mynydd Carn y Cefn Wind Farm close to the boundary of the Brecon Beacons National Park. With reference to the ZTV at **Figure 6.24**, and the cumulative wirelines at **Viewpoints 20 and 21** taken from within the National Park, the addition of the Mynydd Carn y Cefn Wind Farm to this scenario would only have a modest contribution to the overall magnitude of landscape change experienced within the Brecon Beacons National Park that would be significant as a result of the Pen March Wind Farm, and potentially also the Manmoel Scoping Opinion scheme.

- 6.13.29 At separation distances between 16km and 21km, the relationship between the other additional wind farms included in this scenario at Bryntail Farm (In Planning) and Mynydd Y Glyn (Scoping Opinion) and the would be too weak to give rise to any significant cumulative landscape effects with the Mynydd Carn y Cefn Wind Farm.

Scenario Two: Cumulative Visual Effects

- 6.13.30 As described in relation to Scenario One, field observations have confirmed the general lack of a strong visual relationship between baseline wind energy schemes and locations at which the Mynydd Carn y Cefn Wind Farm may give rise to a Moderate (not significant) or Slight/Moderate level of visual effect. The additional wind energy schemes included Scenario Two that are likely to have the greatest contribution to significant effects are located within 15km of the Mynydd Carn y Cefn Wind Farm. These schemes are the Silent Valley wind turbine in Planning, the Scoping Opinion wind farms at Mynydd Llanhilleth, Abertillery and Manmoel (all within 5km of Mynydd Carn y Cefn) and the Scoping Opinion wind farms at Pen March and Twyn Hywel (both over 12km separation distance). The more distant schemes at Bryntail Farm (In planning) and Mynydd Y Glyn (Scoping Opinion) have a limited contribution. As in Scenario One, the locations with the greatest potential for significant cumulative effects would be situated between Mynydd Carn y Cefn and one of the additional wind farms.
- 6.13.31 As in Scenario One, review of **Table 6.21** indicates that visual receptors that are predicted to experience Moderate (not significant) or Moderate/Minor levels of visual effect in relation to Mynydd Carn y Cefn alone include parts of 19 settlements (i.e. Ebbw Vale, Tredegar, Blackwood, Abercarn, Pontllanfraith, Tir-y-berth, Rassau, Pontypool, Penpedairheol, Gelligaer/Penybryn, Maesycwmmmer, Ystrad Mynach, Nelson, Treharris, Llanbradach, Caerphilly, Usk, Merthyr Tydfil and Pontypridd). In the majority of cases, the potential for visibility of multiple wind energy schemes from settlements is typically limited by surrounding built development, unless they are located in the same field of view as Mynydd Carn y Cefn. The contribution of other proposed wind energy schemes to the overall magnitude of turbines visible from these settlements is predicted to be frequently significant and the addition of the Mynydd Carn y Cefn Wind Farm would, in all cases, slightly reinforce an already significant visual effect. Parts of settlements that may experience significant visual effects from other proposed developments comprise parts of Blackwood, Pontllanfraith and Pontypool, to the south of Mynydd Carn y Cefn, with potential views of the Scoping Opinion windfarms at Abertillery, Manmoel and/or Mynydd Llanhilleth. Parts of Ebbw Vale, Tredegar, Rassau and Merthyr Tydfil may be significantly affected by views of the Scoping Opinion windfarms at Manmoel and/or Pen March. A number of settlements in the south of the study area, from parts of Penpedairheol, Gelligaer/Penybryn, Maesycwmmmer, Ystrad Mynach, Nelson, Treharris, Llanbradach, Caerphilly and Pontypridd, would have potentially significant views of the Twyn Hywel Scoping Opinion Wind Farm. No significant effects from the addition of any other proposed wind energy schemes under Scenario Two are predicted from the remaining settlements of Usk, Tir-Y-Berth and Abercarn.
- 6.13.32 With reference to **Table 6.21** the recreational visual receptors that are predicted to experience Moderate (not significant) or Moderate/Minor levels of visual effect in relation to Mynydd Carn y Cefn alone would be confined to 21 receptors including parts of

promoted footpaths, national cycle routes and recreational open space i.e. Taith Torfaen Anytime Challenge, Bristol to Brecon Walk, Usk Valley Walk, Iron Mountain Trail, Brecon Beacons Traverse, Beacons Way, Black Mountains Traverse Challenge, Cambrian Way Accommodation Option (Danywenallt), NCR46, NCR466, NCR423, NCR4, Blackwood Golf Club, Bargoed Golf Club, Brynback Country Park, Open Access land to the east and north-east, Aberfan Cemetery and Garden of Remembrance, Whitehall Golf Club, Morlais Castle Golf Club, Bertholey House Historic Garden, and Tyleri Trails: Walk 3 – Guardian Trail. The magnitude of change to the views available to these receptors as a result of the other proposed wind energy schemes is frequently significant and the addition of the Mynydd Carn y Cefn Wind Farm would typically slightly reinforce an already significant visual effect. With reference to **Viewpoint 18**, representing views from the Taith Torfaen Anytime Challenge, Bristol to Brecon Walk, and Iron Mountain Trail, views of the Scoping schemes at Mynydd Llanhilleth and Abertillery would be significant. Views from part of the Brecon Beacons Traverse, represented by **Viewpoints 21 and 22**, would be significant as a result of views of the Scoping schemes at Pen March and Manmoel and views from a localised part of the Beacons Way, with reference to **Viewpoint 23**, would be significant as a result of views of Pen March. The recreational receptors that would potentially experience significant effects from Mynydd Llanhilleth, Abertillery and/or Manmoel Scoping Opinion Wind Farms comprise parts of Blackwood and Bargoed Golf Clubs, and open access land between 5-10km to the east and northeast of Mynydd Carn y Cefn with reference to **Viewpoints 15 and 18**. Views from NCR46, NCR4, NCR466 (**Viewpoint 3**), Brynback Country Park, Aberfan cemetery and Garden of Remembrance, Whitehall Golf Club, Morlais Castle Golf Club have the potential to be significantly affected by one or more of the Scoping Opinion schemes at Pen March, Twyn Hywel and/or Manmoel. No significant effects from the addition of any other proposed wind energy schemes under Scenario Two are predicted from the remaining recreational receptors comprising Usk Valley Walk, Black Mountains Traverse Challenge, Cambrian Way Accommodation Option (Danywenallt), NCR 423, Bertholey House Historic Garden and Walk 3 of Tyleri Trails.

- 6.13.33 Views from the A4046 have the potential to be significantly affected by the Manmoel Wind Farm (Scoping Opinion) (**Viewpoint 3**) and views from the A4048 by the presence of the Mynydd Llanhilleth and Abertillery Scoping Opinion schemes (**Viewpoint 8**). The low magnitude from the addition of the Mynydd Carn y Cefn Wind Farm would slightly reinforce these already significant visual effects.
- 6.13.34 The assessment above has illustrated the nature of the interaction between Mynydd Carn y Cefn Wind Farm and other proposed wind energy schemes from receptors where the greatest potential for significant cumulative visual effects to be experienced. It is therefore concluded that the introduction of Mynydd Carn y Cefn Wind Farm into this scenario would not result in significant visual effects where these would not arise in relation to either Mynydd Carn y Cefn or one of the other included baseline wind farms alone.

6.14 Significance conclusions

- 6.14.1 A summary of the significant effects as a result of the landscape and visual impact assessment is provided in **Table 6.28**. The magnitude of change and level of effect recorded in **Table 6.28** represents the maximum level recorded for the receptor and as such may only apply to a localised part of a route, settlement or open space. The effects

would also only apply to the latter stages of the construction and the full operational phase of the Wind Farm.

Table 6.28 Summary of significant landscape and visual effects

Receptor	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
LANDMAP – Visual and Sensory Aspect Areas				
BLNGWVS119 - Mynydd Pen-y-fan	High	Medium	Major/Moderate Significant	The hubs and blades of all the proposed turbines would likely be perceived from a large proportion of the VSAA at a minimum separation distance of ~0.8km. There are no existing wind turbines within this VSAA and the presence of the proposed turbines and associated movement would be a new man-made vertical influence within the VSAA which has high levels of remoteness and tranquillity and would strongly contrast with the small-scale field pattern which characterises this VSAA
BLNGWVS226 - St. Illtyd	High	Medium	Major/Moderate Significant	The hubs and blades of the proposed turbines would be visible from within a large proportion of the VSAA at a minimum distance of 1.1km. There are no existing wind turbines within this VSAA. The presence of the proposed turbines and associated movement would be a new large-scale vertical influence within the VSAA which has high-moderate levels of remoteness and tranquillity and would strongly contrast with the small-scale field pattern which characterises this VSAA
BLNGWVS404 - Ebbw/Ebbw Fach Valley	High	High-Medium	Major - Major/Moderate Significant	Localised significant effects upon small parts of the VSAA which lie outside of the coniferous forestry. The hubs and blades of the proposed turbines would be visible from a proportion of the VSAA at a minimum distance of ~50m. There are no existing wind turbines within this VSAA. The presence of the proposed turbines and associated movement would be a new, large-scale vertical influence within the VSAA which has moderate to low levels of remoteness and tranquillity
BLNGWVS688 - Mynydd Bedwellte	Medium	Medium	Moderate Significant	The hubs and blades of the proposed turbines would be visible from within a large proportion of the VSAA at a minimum distance of 1.5km. Wind turbines are already present within the southern part of the VSAA. The presence of the proposed turbines and associated movement would be a new large-scale vertical influence from within parts of the VSAA which has high levels of remoteness and tranquillity partially diluting the “uncluttered, wild, unpeopled character” and “very important remote quality”
BLNGWVS713 - Sirhowy, Ebbw Fawr and Ebbw Fach Valley	High	Medium	Major/Moderate Significant	The hubs and blades of the proposed turbines would be visible from within a large proportion of the two parts of VSAA to the north of the Proposed Development at a minimum distance of 900m to the nearest turbine. One wind turbine scheme (Cruglwyn) is present in the landscape between

Receptor	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
				the western part of the VSAA and the Proposed Development. The presence of the proposed turbines and associated movement would increase the man-made vertical influences and would represent a large-scale vertical feature from within the VSAA which has moderate levels of remoteness and tranquillity.
BLNGWVS808 - Cwm Tyleri	High	Medium	Major/Moderate Significant	The hubs and blades of the proposed turbines would be visible from within a large proportion of the VSAA at a minimum distance of 1.4km. Blaentillery Farm wind turbines are already present within the northern part of the VSAA. The presence of the proposed turbines and associated movement would be a large-scale vertical influence within the VSAA which has Moderate levels of remoteness and tranquillity.
BLNGWVS985 - Lower Ebbw Valley	High	Medium	Major/Moderate Significant	The hubs and blades of the proposed turbines would be visible from within all parts of the VSAA at a minimum distance of 1.1km. There are no existing wind turbines within this VSAA. The presence of the proposed turbines and associated movement would be a new large scale vertical influence within the VSAA which has moderate levels of remoteness and tranquillity.
CYNONVS605 - Cefn Y Brithdir	Medium	Medium	Moderate Significant	The hubs and blades of the proposed turbines would be visible from within a large proportion of the VSAA at a minimum distance of 3km for the smaller of the two parts of VSAA and 5.5km for Cefn Y Brithdir. There are no existing wind turbines within this VSAA, however, several other wind turbine schemes are present in the landscape between the VSAA and the Proposed Development. The presence of the proposed turbines and associated movement would be a new large scale vertical influence within the VSAA which has moderate levels of remoteness and tranquillity.
TRFNVS019 - Unnamed	Medium	Medium	Moderate Significant	The hubs and blades of the proposed turbines would be visible from within a large proportion of the VSAA at a minimum distance of 3.5km. There are no existing wind turbines within this VSAA. The presence of the proposed turbines and associated movement would be a new man-made vertical influence within the VSAA which has moderate levels of remoteness and tranquillity and <i>"attractive panoramic views over valleys and uplands"</i>
TRFNVS022 - Unnamed	Medium	Medium	Moderate Significant	The hubs and blades of the proposed turbines would be visible from within a small proportion of the VSAA at a minimum distance of 4.2km. The presence of the proposed turbines and associated movement would be an incremental man-made vertical influence within the VSAA which has moderate levels of remoteness and tranquillity.

Receptor	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
TRFNVS024 - Unnamed	Medium	Medium	Moderate Significant	The hubs and blades of the proposed turbines would be visible from within a large proportion of the eastern and south-eastern parts of the VSAA at a minimum distance of ~2.5km and a small proportion of the north-eastern part of the VSAA at a minimum distance of 3.8km. Several existing wind turbines are present in the landscape between the north-eastern and eastern part of the VSAA and the Proposed Development. The presence of the proposed turbines and associated movement would be an incremental man-made vertical influence within the VSAA which has high levels of remoteness and tranquillity and features “ <i>attractive upland views</i> ” which contribute to its sense of place.
<u>LANDMAP – Historic Landscape Aspect Areas</u>				
BLNGWHL022 - HAA 22 Mynydd Carn y Cefn	Medium	Medium	Moderate Significant	The hubs and blades of the proposed turbines would be visible from within a large proportion of the HLAA. There are no existing wind turbines within this HLAA. The presence of the proposed turbines and associated movement would be a new direct man-made vertical influence within the HLAA although it is anticipated that the final siting of the northern most turbine and tracks could avoid directly impacting upon the valued attributes of this HLAA.
BLNGWHL04 - HAA 41 Hafod y dafal	Medium	High	Major/Moderate Significant	The hubs and blades of the proposed turbines would be visible from within all of the HLAA. There are no existing wind turbines within this HLAA. The presence of the proposed turbines and associated movement would be a new direct man-made vertical influence within the HLAA with some small-scale direct effects on surviving field patterns to accommodate access tracks and infrastructure. The scale of the proposed turbines would also contrast with the small scale of the existing field pattern
BLNGWHL044 - HAA 44 St Illtyd Fieldscape	High	Medium	Major/Moderate Significant	The hubs and blades of the proposed turbines would be visible from within a large proportion of the HLAA. There are no existing wind turbines within this HLAA. The presence of the proposed turbines and associated movement would be a new indirect man-made vertical influence. Whilst there would be no direct effects upon any of the attributes for which this landscape is valued, the scale and proximity of the wind turbines would contrast with and may overwhelm the well-preserved and complex agricultural fieldscape.
<u>Local Landscape Designations</u>				

Receptor	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
Mynydd Carn y Cefn and Cefn yr Arail Special Landscape Area	High	Medium to High	Major Significant	As this SLA would host all eight proposed turbines plus of the access tracks and the ancillary elements it would experience some direct effects and the operational turbines would be dominant landscape elements across much of the SLA. The field pattern across the southern end of the Site would be largely maintained with the access tracks utilising a proportion of existing tracks to minimise disruption to the well preserved and smaller scale field patterns although the distinctive landform may become dominated by the turbines due to their scale and proximity. The open skyline with its absence of industrialisation is also a characteristic which would be altered by the Proposed Development.
Eastern Ridge and Mynydd James Special Landscape Area	Medium	Medium	Moderate Significant	A large proportion of this SLA coincides with the ZTV at distances of 1 km to approximately 5.5 km. The Proposed Development would appear as a new, prominent feature on the skyline affecting a small part of the overall visual experience gained from this upland landscape. The remaining primary landscape qualities and features for which this landscape has been designated would not be affected.
Cwm Tyleri and Cwm Celyn Special Landscape Area	High	Medium	Major/Moderate Significant	The prominence of the turbines at a minimum separation distance of 1.5 km would contrast with the small-scale valley landform which characterises this SLA and could reduce the strong rural character and hidden 'tucked away' which are primary landscape qualities of this landscape.
St. Illtyd Plateau and Ebbw Eastern Sides Special Landscape Area	High	Medium	Major/Moderate Significant	Whilst the proposed turbines would not interrupt the panoramic views south, to other plateau landscapes, they would be dominant features in westerly views from the northern part of the SLA. The prominence of the turbines at a minimum separation distance of 1.2 km would strongly contrast with the small-scale field pattern which characterises this SLA and would reduce the high levels of remoteness which is a primary landscape quality of this landscape.
Manmoel Very Important Local Landscape	Medium	Medium	Moderate Significant	Whilst the majority of the primary landscape qualities and features for which this area has been designated would not be altered by the Proposed Development, the turbines would introduce a degree of intrusion in some outward views which are noted as increasing in quality as the elevation within this VILL increases. Their scale may also dominate the small-scale field pattern which is prevalent across this VILL.
<u>Visual Receptors</u>				

Receptor	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
Residents in the settlement of Abertillery	High	High	Major Significant	From the majority of the settlement there would be theoretical views from some dwellings, depending on orientation, typically comprising 5 turbine hubs and blades (T1-T5) (Viewpoint 1) with the blades of T1-T3 also potentially visible from the most elevated dwellings along the eastern edge of the settlement.
Residents in the settlement of Brynithel	High	Medium	Major/Moderate Significant	From the elevated northern edge of the settlement, and properties in St. Illtyd there would be opportunities for views, partially restricted by intervening vegetation of the Proposed Development from a small number of properties orientated north-west.
Residents in the settlement of Llanhilleth	High	Low	Moderate Significant	From more elevated parts of the settlement, north and northeast of the B4471, heavily filtered oblique views of up to 4 turbine hubs in winter would be potentially Significant from very localised parts of the settlement, given the Proposed Development would be only ~2.5km distant.
Residents in the settlement of Trinant/Pentywn	High	High	Major Significant	The magnitude of change would be High at properties on the northern edge of the settlement where unrestricted views are available with reference to Viewpoint 5, however no views of the Proposed Development would be available from the majority of dwellings within the settlement.
Residents in the settlement of Blaina	High	Medium to High	Major Significant	Whilst the majority of dwellings are not orientated towards the Proposed Development, residents would experience partly restricted views of the Proposed Development from gardens and roads within the settlement. Viewpoint 11 is taken from the nearby settlement of Nantyglo.
Residents in the settlement of Markham	High	Medium to High	Major Significant	The magnitude of change would be High to Medium at properties on the northern edge of the settlement; however no views of the Proposed Development would be available from the majority of dwellings within the settlement.
Residents in the settlement of Swffryd	High	Medium	Major/Moderate Significant	The majority of properties are orientated south and south-east, thereby limiting views of the Proposed Development from the dwellings, however views of the Proposed Development (of up to 8 turbine hubs) would be frequently available from gardens and streets within the settlement.
Residents in the settlement of Crumlin	High	Medium	Major/Moderate Significant	There is the potential for highly localised views of the Proposed Development from parts of the settlement, particularly the elevated western fringes. Due to the relatively high density of housing and varied orientation, it is predicted that views would be restricted from the majority of dwellings within the settlement and any glimpses of the Proposed Development (of up to 8

Receptor	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
				turbine hubs) would typically only be occasionally available from gardens and streets within the settlement.
Residents in the settlement of Nantyglo	High	Medium to High	Major Significant	The majority of terrace dwellings within the settlement are orientated east-west and views from within dwellings are predicted to be typically restricted in nature. Views of the Proposed Development would be frequently available from the north-south facing streets as illustrated in Viewpoint 11.
Residents in the settlement of Oakdale	High	Medium	Major/Moderate Significant	Viewpoint 10 was selected as being representative of views from the rear of dwellings on Pen-Y-Fan Way and Prior's Gate at the northern edge of the settlement, noting that ground level views would be restricted to some degree by garden fencing, outbuildings and planting. No views of the Proposed Development would be available from the majority of dwellings within the settlement.
Residents in the settlement of Newbridge	High	Medium	Major/Moderate Significant	The majority of the town lies outside the ZTV with the notable exception being the northern and western edge of the suburb of Panside and whilst tree cover restricts views in many cases there are several locations where direct views from a limited number of dwellings to all turbines would be available.
Residents in the settlement of Brynmawr	High	Medium	Major/Moderate Significant	The greatest extent of the Proposed Development (up to 6 hubs and 8 blade tips) is predicted from the from the elevated part of the settlement to the northwest of the town centre. The majority of dwellings in this area are orientated south towards the Site and consequently views of the Proposed Development would be frequently available as illustrated in Viewpoint 14.
Residents in the settlement of Bargoed	High	Medium	Major/Moderate Significant	Unrestricted views of the Proposed Development whilst intermittent would be frequently experienced from the western edge of Bargoed and with a separation distance of ~7km and a localised Medium magnitude of effect is assessed.
Residents in the settlements of Hengoed and Cefn Hengoed	High	Medium	Major/Moderate Significant	Views of the Proposed Development would be heavily restricted by surrounding dwellings from the majority of the built-up area although there would be frequent views from properties on and near the northern and western edge of Cefn Hengoed and elevated parts of Hengoed.
Recreational users of the Ebbw Valley Walk	High	High	Major Significant	Unrestricted views are available north of Trinant (Viewpoint 5) where the Proposed Development would be prominent in views. Travelling south from the edge of Ebbw Vale, unrestricted views of

Receptor	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
				the Proposed Development would be available from higher ground along the ridgeline of Cefn Manmoel.
Recreational users of the Sirhowy Valley Ridgeway Walk	High	High	Major Significant	A high magnitude of change is assessed where clear views are available including intermittent glimpses near Manmoel (Viewpoint 4) and unrestricted views from localised sections of the route at Briery Hill and Cefn Manmoel.
Recreational users of the Rhymney Valley Ridgeway Walk	High	Medium to Low	Moderate Significant	Distant views of the Proposed Development would be possible from a localised section of the route on higher ground west of Ystrad Mynach up to ~11km distant, representing a localised Low to Medium magnitude of change., noting elsewhere from the route views would be more distant or completely screened by intervening landform.
Recreational users of the Monmouthshire Way	High	High	Major Significant	The magnitude of change would range from Zero due to intervening landform, and in places screening by vegetation, to a High magnitude of change east of Abertillery.
Recreational users of the Taith Torfaen Anytime Challenge	High	High	Major Significant	East of Abertillery the route passes within ~2.5km of the closest turbine and frequently lies within the ZTV (hub visibility). The landscape along this route section is open in character typically allowing unrestricted oblique views of the Proposed Development.
Recreational users of the Raven Walk	High	Medium	Major/Moderate Significant	The majority of the route is located outside the ZTV. Southwest of Abercarn walkers would experience a Medium magnitude of change from a very localised section of the overall route.
Recreational users of the Cambrian Way	High	Medium	Major/Moderate Significant	The route crosses higher ground in the Brecon Beacons National Park including the summits of Pen-Y-Fan, Craig-y-Fan Du (Viewpoint 23) and Pen Cerrig Calch (Viewpoint 22). Closer to the Site views would be available from the route at Mynydd Llangynidr (Viewpoint 20), The Blorenge (Viewpoint 18), Mynydd Garnlochdy/Garn Wen (Viewpoint 15) and Twmbarlwn (Viewpoint 19). Only at Twmbarlwn would the magnitude of change be sufficiently high to result in a significant effect upon visual amenity.
Recreational users of the Torfaen Trail	High	Medium	Major/Moderate Significant	At Coety Mountain, ~5km northeast of the Proposed Development a short section of the route follows a local valley and oblique partial views (up to 2 turbine hubs visible) would be available.

Receptor	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
Recreational users of the Celtic Way	High	Medium	Major/Moderate Significant	Views from route would typically be restricted by landform and/o forestry, apart from the Twmbarlwm summit where open view would be available from a very localised section of the route.
Recreational users of National Cycle Route 465	High	High	Major Significant	The highway corridor is typically flanked by mature woodland along both sides that restricts potential views of the Proposed Development. Less restricted views of up to 6 turbine tips and 4 turbine hubs would be available for a ~0.7km route section extending from the southern end of Blaina to the Roseheyworth Business Park, ~1.1km from the Proposed Development at the closest point.
Recreational users of National Cycle Route 466	High	Low	Moderate Significant	At the northern edge of Cwm there would be direct views of up to 2 turbine hubs and 4 blade tips above the settlement as cyclists progress along Canning Street. Elsewhere views of the Proposed Development would be more restricted because of intervening buildings within the settlement and/or from local tree cover.
Recreational users of Pen-y-fan Pond Country Park	High	Medium	Major/Moderate Significant	Viewpoint 6 illustrates views from the northern edge of the park where visibility is partially restricted by local tree cover. In reality, less restricted views from the southern end of the park, across the pond, would represent a Medium magnitude of change.
Recreational users of Parc Penallta Country Park	High	Medium	Major/Moderate Significant	Visibility of the Proposed Development, over ~9.7km distant would in reality only likely be available from the Observatory at an elevated location, with views from lower slopes screened by woodland cover.
Recreational users of open access land and PRoW within 5km of the proposed turbines including summits and upper slopes of Mynydd Carn y Cefn, Mynydd James, Coety Mountain, Twyn Pentre and Cefn Manmoel.	High	High	Major Significant	A large proportion of the upland landscape to the north and east of the Site, above the settlements in the valleys is designated as open access land. High points where the Proposed Development would be clearly visible include Cefn Yr Arail in close proximity to the northernmost turbine. Unrestricted views would also be available from Mynydd Carn y Cefn (Viewpoint 9) to the north and Mynydd James, Coety Mountain and Twyn Pentre to the northeast. Unrestricted views would also be available from parts of the open access land at Cefn Manmoel to the northwest.

Receptor	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
Recreational users of open access land and PRow between 5km-10km to the north, west and south-east of the proposed turbines including summits and upper slopes of Mynydd Bedwellte, Rhymney Hill, Cefn Y Brithdir, Mynydd Llangatwg, Gelligaer Common, Mynydd Llywyd, Mynydd Maen and Mynydd Twn-glas.	High	High to Medium	Major to Major/Moderate Significant	Locations where the Proposed Development would be clearly visible with hub visibility include, Mynydd Bedwellte (Viewpoint 12), Rhymney Hill, Cefn Y Brithdir (Viewpoint 13), Mynydd Llangatwg (Viewpoint 17) and Gelligaer Common. Unrestricted views would also be available from elevated parts of the open access land to the southeast at Mynydd Llywyd, Mynydd Maen and Mynydd Twn-glas.
Recreational users of Tyleri Trails: Walk 1 - Riverside	High	High to Medium	Major to Major/Moderate Significant	Walkers would pass within ~0.5km of the closest proposed turbine. There would be theoretical views of up to 6 turbine blade tips and up to 4 hubs from the route, in reality frequently heavily restricted by tree cover.
Recreational users of Tyleri Trails: Walk 2 – Park Heights	High	High	Major Significant	The route public rights of way on the north-eastern facing slopes of Cefn Bach, largely enclosed by forestry and then follows the edge of forestry along the open plateau top, within ~0.2km of the proposed turbines where unrestricted views of the Proposed Development would be available.
Recreational users of Tyleri Trails: Walk 4 – Guardian Heights	High	High	Major Significant	The route follows the public byway (diverted to accommodate the proposed development) and other PRow on the ridge passing Hafod-y-dafal, the solar farm and the edge of the Cefn Bach plateau top, within ~0.2km of the proposed turbines where unrestricted views of the Proposed Development would be available.
Recreational users of Tyleri Trails: Walk 5 – Three Parishes	High	High	Major Significant	The route follows PRow across open moorland and forestry with part of the route following residential streets on the southeastern edge of Abertillery. The route is located within ~1.3km of the proposed turbines where unrestricted views of the Proposed Development would be available.
Recreational users of Tyleri Trails: Walk 6 – Coity Heights	High	High	Major Significant	The route follows PRows and tracks within open access land on elevated ground east of Abertillery and is located within ~1.9km of the proposed turbines where unrestricted views of the Proposed Development would be available.

Receptor	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
Recreational users of Tyleri Trails: Walk 7 – Mynydd James	High	High	Major Significant	The route follows PRow and tracks within open access land on elevated open ground east of Abertillery. and is located within ~1.2km of the proposed turbines where unrestricted views of the Proposed Development would be available.
Recreational users of Tyleri Trails: Walk 8 – Hidden Treasures	High	Medium	Major/Moderate Significant	The route follows PRow and minor roads in a loop around Cwmtillery lakes and is located within ~2.3km of the Proposed Development. The magnitude of change would range from Zero where intervening landform, reinforced by local tree cover prevents views, up to a Medium magnitude of change where partial glimpses of turbines would be available (typically up to 2 turbine hubs and 4 turbine blade tips).
Recreational users of Tyleri Trails: Walk 9 – Tyleri Valley Heights	High	High	Major Significant	The magnitude of change would range from Zero where intervening landform, reinforced by local tree cover, prevents views, up to a High magnitude of change where unrestricted views of 8 turbines hubs would be available from higher ground along the eastern and north-eastern part of the route.
Recreational users of the Ebbw Fach Trail	High	High	Major Significant	The trail is located ~0.7km from the Proposed Development at the closest point. A High to Medium magnitude of change would be available from localised parts of the route through Abertillery and parts of the route near Cwmtillery Lakes.
Road users of the A467	Medium	High	Major/Moderate Significant	The route passes within 0.6km of the proposed turbines on the southwestern edge of Abertillery with views screened by intervening landform and woodland. Less restricted views of up to 6 turbine tips and 4 turbine hubs would be available for a ~0.7km route section extending from the southern end of Blaina to the Roseheyworth Business Park, ~1.1km from the Proposed Development at the closest point.
Road users of the B4471	Medium	High to Medium	Major/Moderate Significant	Localised views at the northern end of Swffryd and road users descend into Aberbeeg, passing the junction with Victoria Road. Typically from the route there would be no change due to intervening landform and woodland.
Road users of the B4511	Medium	High to Medium	Major/Moderate Significant	At the edge of Markham and travelling northwards through the village there would be direct views of the Proposed Development, ~3.7km distant on the skyline (up to 8 turbine tips and hubs), with the full horizontal extent of the wind farm partially screened by built development and street trees within the settlement

1. The sensitivity of a receptor is defined using the criteria set out in **Section 6.8** and is defined as low, medium and high.
2. The magnitude of change on a receptor resulting from activities relating to the development is defined using the criteria set out in **Section 6.8** and is defined as very low, low, medium and high.
3. The significance of the environmental effects is based on the combination of the sensitivity/importance/value of a receptor and the magnitude of change and is expressed as major, major/moderate (significant), moderate (potentially significant) or moderate/minor, minor or negligible (not significant), subject to the evaluation methodology outlined in **Section 6.8**.