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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; and
- **Chapter 16: Socio-economics** including tourism and recreation which assesses the effects of the Proposed Development on the use of public rights of way (PRoW) within the Proposed Development 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: Bannau Brycheiniog National Park (**Section 6.10**);
- the assessment of effects: local landscape designations (**Section 6.11**);
- the assessment of visual effects (**Section 6.12**);
- the 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 and glossary;
- **Appendix 6B** LANDMAP filtering process;
- **Appendix 6C** LANDMAP Aspect Areas: baseline descriptions and sensitivity assessments;

- **Appendix 6D** LANDMAP Geological Landscapes Aspect Areas: Assessment of effects;
- **Appendix 6E** LANDMAP Landscape Habitats Aspect Areas: Assessment of effects;
- **Appendix 6F** LANDMAP Visual and Sensory Aspect Areas: Assessment of effects;
- **Appendix 6G** LANDMAP Historic Landscape Aspect Areas: Assessment of effects;
- **Appendix 6H** LANDMAP Cultural Landscape Services Aspect Areas: Assessment of effects;
- **Appendix 6I** Assessment of landscape effects: BBNP LCAs; and
- **Appendix 6J** Viewpoint 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. A further appendix will form part of the final ES as follows:

- **Appendix 6K** Residential Visual Amenity Assessment.

6.1.5 The following figures also 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.
- **Figure 6.4** Detailed Zone of Theoretical Visibility (ZTV) to Blade Tip with Viewpoint Locations.
- **Figure 6.5** Zone of Theoretical Visibility (ZTV) to Blade Tip with Viewpoint Locations (1:60,000 scale).
- **Figure 6.6** Zone of Theoretical Visibility (ZTV) to Blade Tip with Viewpoint Locations (1:25,000 scale).
- **Figure 6.7** Wind energy developments included in the Cumulative Landscape and Visual Impact Assessment (CLVIA).
- **Figure 6.8** Landform Plan of the Study Area.
- **Figure 6.9** National Landscape Character Areas with Zone of Theoretical Visibility (ZTV) to Hub Height and Blade Tip.
- **Figure 6.10a** LANDMAP Geological Landscape Aspect Areas filtered into the LVIA with Zone of Theoretical Visibility (ZTV) to Hub and Blade Tip.
- **Figure 6.10b** LANDMAP: Landscape Habitats Aspect Areas filtered into the LVIA with Zone of Theoretical Visibility (ZTV) to Hub and Blade Tip.
- **Figure 6.10c** LANDMAP: Visual and Sensory Aspect Areas filtered into the LVIA with Zone of Theoretical Visibility (ZTV) to Hub and Blade Tip.

- **Figure 6.10d** LANDMAP: Historic Landscape Aspect Areas filtered into the LVIA with Zone of Theoretical Visibility (ZTV) to Hub and Blade Tip.
- **Figure 6.10e** LANDMAP: Cultural Landscape Services Aspect Areas filtered into the LVIA with Zone of Theoretical Visibility (ZTV) to Hub and Blade Tip.
- **Figure 6.11** National and local landscape designations with Zone of Theoretical Visibility (ZTV) to Hub Height and Blade Tip.
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- **Figure 6.17** Residential Properties within 2km with Zone of Theoretical Visibility (ZTV) to Blade Tip.
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- **Figure 6.34(a-g)** Viewpoint 16: Summit of Mynydd Carn-y-Cefn - viewpoint parameters, existing view/ wireline, cumulative wirelines, wireline and photomontages.
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- **Figure 6.36(a-g)** Viewpoint 18: Caerphilly Common - viewpoint parameters, existing view/ wireline, cumulative wirelines, wireline and photomontages.
- **Figure 6.37(a-h)** Viewpoint 19: Rhymney Valley Ridgeway Walk on Mynydd Mieo - viewpoint parameters, existing view/ wireline, cumulative wirelines, wireline and photomontages.
- **Figure 6.38(a-g)** Viewpoint 20: The Blorenge, Bannau Brycheiniog National Park - viewpoint parameters, existing view/ wireline, cumulative wirelines, wireline and photomontages.
- **Figure 6.39(a-d)** Viewpoint 21: Brynderwen, Bettws Newy - viewpoint parameters, existing view/ wireline, cumulative wirelines and wireline.
- **Figure 6.40(a-e)** Viewpoint 22: Wales Coast Path, Newport - viewpoint parameters, existing view/ wireline, cumulative wirelines and wireline.
- **Figure 6.41(a-d)** Viewpoint 23: Bertholey House, Newbridge on Usk - viewpoint parameters, existing view/ wireline, cumulative wirelines and wireline.
- **Figure 6.42(a-g)** Viewpoint 24: Trig point at Mynydd Llangynidr, Brecon Beacons National Park - viewpoint parameters, existing view/ wireline, cumulative wirelines, wireline and photomontages.

6.1.6 Each set of visualisation figures for Viewpoints 1 to 24 is presented across a number of pages including:

- Viewpoint parameters;
- Existing view comprising baseline photography and wireline – 90° horizontal field of view;
- Wireline – 53.5° horizontal field of view;
- Cumulative wireline(s) – 90° horizontal field of view;
- Photomontage – 53.5° horizontal field of view; and
- Photomontage – 90° horizontal field of view.

Limitations and assumptions

6.1.7 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.

6.1.8 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
Wellbeing of Future Generations (Wales) Act 2015[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
Environment (Wales) Act 2016[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.
National Parks and Access to the Countryside Act 1949[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**.

Table 6.2 Planning policy relevant to the LVIA

Policy	Policy context
National planning policy	
Planning Policy Wales, Edition 11[5]	With specific reference to large scale wind developments and the landscape, paragraph 5.9.17 recognises that Future Wales 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.

[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 September 2023).
[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 September 2023).
[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 September 2023).
[5] Welsh Government. (2021). Planning Policy Wales, Edition 11. (Online). Available at: https://gov.wales/planning-policy-wales (Accessed September 2023).

	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 the 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. 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. 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.
Future Wales - The National Plan 2040[6]	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 (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), subject to the criteria in Policy 18. The Proposed Development Site lies within Pre-Assessed Area 10 (further detail is set out in **Section 3.2** of **Chapter 3: Scheme Need, Alternatives and Iterative Design Process**). The policy continues by stating that all proposals should demonstrate that they will not have an unacceptable adverse impact on the environment.
Future Wales - The National Plan 2040[6]	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.
Local planning policy	
Caerphilly County Borough Council Local Development Plan up to 2021[7][8]	**Policy SP10 – Conservation of Natural Heritage** states the Council will protect, conserve, enhance and manage the natural heritage of the County Borough in the consideration of all development proposals within both the rural and built environment. **Policy CW2 – Amenity** outlines that development proposals should reference relevant material planning considerations to avoid unacceptable impact on the amenity of adjacent properties or land. Although the effects are considered to predominantly relate to residential proposals, the policy applies to all forms of development and includes consideration of the adverse effects of a development on adjoining uses.

[6] Welsh Government. (2021). Future Wales - The National Plan 2040. (Online). Available at: https://gov.wales/future-wales-national-plan-2040-0 (Accessed October 2023).
[7] 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 (Accessed October 2023).
[8] Caerphilly County Borough Council. (2010). 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 October 2023).

	Policy 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). **Policy CW6 – Trees, Woodland and Hedgerow Protection** determines that development proposals will only be permitted where all reasonable efforts have been made to retain, protect and integrates trees, woodland or hedgerows within the Proposed Development site. Should tress, woodlands or hedgerows be removed as part of a development proposal, suitable replacements should be provided. The LDP also provides Supplementary Planning Guidance LDP 4 – Trees and Development[9]. **Policy CW15 – General Locational Constraints** states development proposals outside settlement boundaries will not be permitted unless associated with the provision of public utilities/ infrastructure that cannot be reasonably located elsewhere. **Policy NH1 - Special Landscape Areas** identifies six non-statutory SLA designations. The Proposed Development is not located within an SLA designation, however, four SLAs (NH1.2 Gelligaer Common, NH1.3 Mynydd Eglwysilan, NH1.4 North Caerphilly and NH1.6 Myynddislwyn) lie within 10km of the Proposed Development and coincide with the ZTV as set out in the baseline presented in **Section 6.5**. The text accompanying the policy states that "*these areas will be protected from any development that would harm their distinctive features or characteristics*" and that the applicant will need to demonstrate that any development proposal will not have an unacceptable impact on the specific distinctive features or characteristics associated with the SLA. **Policy NH2 – Visually Important Local Landscape (VILLS)** classifies four non-statutory VILL designations. The Proposed Development is located within NH2.3 Abercarn while two remaining VILLs, NH2.2 Manmoel and NH2.4 Rudry, lie within 10km of the Proposed Development. Only NH2.2 Manmoel coincides with the ZTV as set out in the baseline presented in **Section 6.5.** The text accompanying the policy states that "*development will only be permitted where it conserves and, where appropriate, enhances the distinctive visual and sensory landscape features or characteristics of the VILL*" and that development proposals should show how these features of the visual and sensory LANDMAP aspect layer are conserved and, where relevant enhanced to the advantage of the visual landscape.
Blaenau Gwent Local Development Plan up to 2021[10]	**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. This includes protecting those attributes and features which make a significant contribution to the character, quality, and amenity of the landscape. **Policy DM1 - New Development** states that development proposals should meet a number of criteria, including that there would be no unacceptable adverse visual impact on townscape or landscape.

[9] Caerphilly County Borough Council. (2017). Trees and Development. Local Development Plan up to 2021 (Revision 2). (Online). Available at: https://www.caerphilly.gov.uk/caerphillydocs/planning/ldp4-trees-and-development.aspx (Accessed October 2023).
[10] Blaenau Gwent County Borough Council. (2012). Local Development Plan up to 2021. (Online). Available at: https://www.blaenau-gwent.gov.uk/media/afeljh2u/written_statement__without_appendices_.pdf (Accessed October 2023).

	Policy DM4 - Low and Zero Carbon Energy provides criteria against which development, such as onshore wind farms will be considered. It requires that development will not have an unacceptable adverse impact on local amenity, which includes (amongst other criteria), visual dominance. **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. Five SLAs lie within 10km of the Proposed Development and coincide with the ZTV as set out in the baseline presented in **Section 6.5.** The policy states that 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.
Torfaen County Borough Council Local Development Plan (to 2021)[11]	**Policy C2 - Special Landscape Areas (SLAs)** lists the eight SLAs that have been identified within the area administered by Torfaen County Borough Council. Five SLAs lie within 10km of the Proposed Development and coincide with the ZTV as set out in the baseline presented in **Section 6.5.** The policy states that in order to ensure the continued protection and enhancement of the designated SLAs, 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.
BBNP Authority Local Development Plan 2007-2022[12]	**SP9 - Renewable Energy.** Whilst this policy refers to renewable energy schemes within the National Park, the accompanying text at paragraphs 3.16.2.9 and 3.16.2.10 recognises the potential impact of large-scale renewable energy projects located on the peripheries of the National Park which will be judged in accordance with SP2 Major Development in the National Park. Policy SP9 states that proposals for renewable energy schemes will only be permitted where they do not have a significant adverse impact on the Natural Beauty, wildlife, cultural heritage and special qualities of the National Park. **SP2 - Major Development in the National Park – Strategic Policy.** Major development in the National Park, should only take place in exceptional circumstances, where proven to be in the public interest. Proposals will be judged against a number of criteria including any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which these could be moderated.

6.2.4 As well as the national and local development plans, reference has been made to the following:

- Landscape and Development Supplementary Planning Guidance[13] (BBNP Authority).

Technical guidance

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

[11] Torfaen County Borough Council. (2013). Local Development Plan (to 2021). (Online). Available at: https://www.torfaen.gov.uk/en/Related-Documents/Forward-Planning/Adopted-Torfaen-LDP-Writen-Statement.pdf (Accessed October 2023).
[12] Brecon Beacons National Park Authority. (2013). Brecon Beacons National Park Local Development Plan 2007-2022. (Online). Available at: https://www.beacons-npa.gov.uk/planning/draft-strategy-and-policy/brecon-beacons-national-park-local-development-plan/ (Accessed October 2023).
[13] Brecon Beacons National Park Authority. (2014). Landscape and Development Supplementary Planning Guidance. (Online). Available at: https://www.beacons-npa.gov.uk/wp-content/uploads/Landscape-and-Development-SPG-Adopted-October-2014.pdf (Accessed October 2023).

Table 6.3 Technical guidance relevant to the LVIA

Technical guidance document	Context
Guidelines for Landscape and Visual Impact Assessment (Third Edition)[14]	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)[15]	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 assessment of potentially sensitive landscape and visual receptors on the aspect areas most likely to be affected.
Visual Representation of Windfarms (Version 2.2)[16]	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[17]	This Technical Guidance Note applies to visual representation of all forms of development. Paragraph 1.5.3 notes that the Landscape Institute (LI) supports the Scottish Natural Heritage (now NatureScot) Guidance: *Visual Representation of Wind Farms v2.2*[16] and that the *Visual Representation of Development Proposals* is broadly consistent with the guidance, particularly in respect of Type 4 Visualisation.
Guidance: Assessing the Cumulative Impact of Onshore Wind Energy Developments[18]	This guidance sets out advice on assessing cumulative landscape and visual impacts and is referenced in Chapter 7 of GLVIA3[14].
Technical Information Note -2/2019. – Residential Visual Amenity Assessment[19]	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 GLVIA3[14]. 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.

[14] Landscape Institute and the Institute of Environmental Management and Assessment, (2013). Guidelines for Landscape and Visual Impact Assessment. 3rd edition. London. Routledge
[15] 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 September 2023).
[16] 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 September 2022).
[17] 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 September 2023).
[18] 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 September 2023).
[19] Landscape Institute (2019). Technical Guidance Note 2/19 - Residential Visual Amenity Assessment. (Online). Available at: https://www.landscapeinstitute.org/technical-resource/rvaa/ (Accessed September 2023).

Technical Information Note 04/2020 - Infrastructure[20]	This Technical Guidance Note provides information on the planning, design and management of infrastructure to support the delivery of major infrastructure projects in the UK. Part 1 of the document explains what infrastructure is, the role of the Landscape Professional and the planning and design process in a major infrastructure project. Part 2 provides technical guidance and resources, introducing documents of relevance to different infrastructure types.
Technical Guidance Note 02/21 - Assessing landscape value outside national designations[21]	This technical guidance note provides information and guidance to landscape professionals and others who need to make judgments about the value of a landscape (outside national landscape designations) in the context of the UK Town and Country Planning system.

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 02 December 2022 (reference CAS-02114-J9X4SG: Trecelyn Wind Farm). 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.**

Table 6.4 Summary of EIA Scoping Direction responses for the LVIA

Consultee	Consideration	How this is addressed in the Draft ES
PEDW LVIA responses		
PEDW **ID.6**	Assessment Methodology PEDW welcomes that the LVIA will be undertaken in accordance with Guidelines for Landscape and Visual Assessment (3rd Edition). Any deviations from this should be proportionately explained in the ES.	Noted. The assessment methodology of the LVIA is set out in **Section 6.8** and **Appendix 6A**.
PEDW	Residential Visual Amenity Assessment (RVAA)	The Residential Visual Amenity Assessment (RVAA) will be set out in

[20] Landscape Institute (2020). Technical Information Note 04/2020 – Infrastructure. (Online). Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2018/01/LI-Infrastructure-TGN-FINAL-200924.pdf (Accessed September 2022).
[21] Landscape Institute (2021). Technical Guidance Note 02/21 - Assessing landscape value outside national designations. (Online). Available at: https://www.landscapeinstitute.org/publication/tgn-02-21-assessing-landscape-value-outside-national-designations/ (Accessed October 2023).

Consultee	Consideration	How this is addressed in the Draft ES
ID.7	PEDW welcomes that a RVAA will be included as part of the submission. It is also noted within Appendix 1 that CCBC (Caerphilly County Borough Council) also supports this and that the 2km Study Area is considered acceptable.	**Appendix 6K** of the final ES. A summary of the expected conclusions of the RVAA is provided in **Section 6.12**. The assessment methodology used in the RVAA is set out in **Appendix 6A**.
PEDW **ID.8**	Blade to tip height The Applicants are reminded that the maximum worst-case scenario should be used in the ES, to ensure that any potential impacts are appropriately addressed.	The LVIA has been prepared with consideration of the maximum development parameters, as determined in **Chapter 4: Description of the Proposed Development**
PEDW **ID.9 and ID.11**	LVIA PEDW agrees with the broad approach highlighted in Section 5 and how the LVIA will be undertaken, however there are areas that need to be developed further. CCBC notes that additional work is required in terms of additional landscape viewpoints as those included are not sufficient, as well as clearer Study Area maps. PEDW encourages the Applicant to discuss these additional requirements directly with each of the three LPAs. Visual Receptors PEDW agrees that these visual receptors are used in the LVIA. CCBC has also included an additional 5 (noted at Appendix 1), although this list is not exhaustive and additional guidance should be sought from the LPA. The applicants should continue to liaise with the relevant LPA (i.e., CCBC) and neighbouring LPAs; the applicant may wish to consider consulting the Brecon Beacons National Park Authority (BBNPA).	A Technical Note in relation to additional LVIA information was circulated to provide a response, and where relevant actions taken, to address each consultee's feedback. Four additional viewpoints have been included in the LVIA: - Viewpoint 8: Cefn Forest/ Blackwood Showfields; - Viewpoint 15: Gelligaer Common and Rhymney Valley Ridgeway Walk; - Viewpoint 17: Rhymney Valley Ridgeway Walk on Cefn y Brithdir; and - Viewpoint 18: Caerphilly Common. The list of viewpoint locations included in the LVIA is set out in **Table 6.7** in **section 6.4**. CCBC's scoping response identified the need for *'more detailed and larger scale ZTV, landscape designation and viewpoint figures'*. Larger format figures have been included in **Figures 6.4 – 6.6, 6.13b, 6.14b** and **6.15b.**
PEDW **ID.10**	NRW Guidance Note (GN) 46: Using LANDMAP in Landscape and Visual Impact Assessment The Applicant's attention is drawn to comments made by NRW regarding the use of GN46 contained at Appendix 1. The ES should be produced in accordance with the methodology specified, and any deviation from this must be supported by a robust justification.	The application of the filtering process outlined in Using LANDMAP in Landscape and Visual Impact Assessments (GN46)[22] is set out in **Appendix 6B** and is illustrated in **Figures 6.10a-e**.

[22] 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 September 2023).

Consultee	Consideration	How this is addressed in the Draft ES
PEDW **ID.12**	Cumulative Assessment PEDW would like to remind the Applicant that not only should the adjoining Mynydd Maen scheme be considered, other developments and proposed developments should be considered (e.g., solar farms). The cumulative impact study should not be limited to Wind farms alone. PEDW advises the Applicants to consult directly with the three LPAs to ensure that all potential cumulative impacts are appropriately identified. The approach in NSIP Advice Note 17 should be followed in identifying what proposals should be included. Where relevant proposals / schemes are to be excluded from the ES, a full explanation should be given as to why that decision was made.	A Technical Note in relation to additional LVIA information was circulated to provide a response, and where relevant actions taken, to address each consultee's feedback. An updated list of cumulative wind energy developments for inclusion in the Cumulative Landscape and Visual Impact Assessment (CLVIA) was provided and is set out in **Table 6.6** in **section 6.4**. Existing development (of varying typologies) is considered by the LVIA as part of the visual baseline within **section 6.12** and **Appendix 6J**.
PEDW **ID.13**	Photographic Viewpoints The Applicant's attention is drawn to comments made by CCBC regarding the need for baseline photographs, wireframes and visualisations / photomontages across numerous different viewpoints, as well as different receptors (noted under paragraph 5.2.30 of the SR). PEDW agrees with this.	Four additional viewpoints have been included in the LVIA: - Viewpoint 8: Cefn Forest/ Blackwood Showfields; - Viewpoint 15: Gelligaer Common and Rhymney Valley Ridgeway Walk; - Viewpoint 17: Rhymney Valley Ridgeway Walk on Cefn y Brithdir; and - Viewpoint 18: Caerphilly Common. The list of viewpoint locations included in the LVIA is set out in **Table 6.7** in **section 6.4**. Each set of visualisation figures for viewpoints in the LVIA are presented across a number of pages including viewpoint parameters, baseline photography, wirelines, cumulative wirelines (where relevant) and photomontages (where relevant).
PEDW **ID.14**	ZTV The SR notes that the ZTV will be taken from 23km radius, however it is noted in CCBC's response contained at Appendix 1 that the Study Area should be clearly defined at 30 km, with cumulative ZTVs being carried out at a more detailed Study Area of a 15 km radius. PEDW agrees with this and notes that the LPA suggests that the Applicant produces a draft cumulative ZTV that can be then worked upon by all interested parties. PEDW supports this collaborative working.	NRW have confirmed agreement with the Cumulative Study Area proposed by the Scoping Report in their Scoping Response (page 3): "*A cumulative study area of 23km as referenced at 5.3.4 is considered appropriate*." A Cumulative Study Area of 23km is considered appropriate for the Proposed Development, with reference to cumulative assessment parameters previously agreed with PEDW: - Mynydd Carn y Cefn (eight turbine scheme with a proposed blade tip

Consultee	Consideration	How this is addressed in the Draft ES
		height of 180 metres) – Cumulative Study Area of 28km; and - Mynydd y Glyn (seven turbine scheme with a proposed blade tip height of 155 metres) – Cumulative Study Area of 26km.
PEDW **ID.15**	Evaluation of Landscape and Visual Effects The Applicant's attention is drawn to the last paragraph of CCBC's 'Landscape and Visual' comments contained at Appendix 1 relating to the addition of a 'Very High' category. PEDW supports this addition given the location of the site and the proximity to other DNS applications.	A very high magnitude of change is included in the assessment methodology, summarised in **Section 6.8 (Table 6.13)** and set out in detail in **Appendix 6A**.
PEDW **ID.16**	AONB Please see the comments contained at Appendix 1 from NRW, and that there is a need to consider the impact that the proposal will have on the BBNP, as well as Wye Valley AONB in the LVIA. NRW does note that the Wye Valley AONB can be scoped out of the assessment as it is unlikely that the impact would be significant (as the AONB is 23km away), and PEDW agrees with this assessment.	The assessment of effects on landscape character, as defined by the BBNP Landscape Character Assessment[23], is set out in **Appendix 6I** and is illustrated in **Figure 6.12**. The effects of the Project upon the special qualities of the BBNP is considered in **Section 6.10**. Four viewpoints from within BBNP have been included in the LVIA: - Viewpoint 11: Little Mountain; - Viewpoint 13: Mynydd Garnclochdy; - Viewpoint 20: The Blorenge; and - Viewpoint 24: Trig point at Mynydd Llangynidr. The list of viewpoint locations included in the LVIA is set out in **Table 6.7** in **section 6.4**. NRW have confirmed that the Wye Valley AONB can be scoped out of the LVIA in their Scoping Response (page 3): "*We agree that the Wye Valley AONB can be scoped out of the assessment. We consider landscape and visual effects at distances over 23km are unlikely to be significant*."
Local Authority and NRW responses		
Caerphilly County	In respect of the Study Area radii and figures showing the Zone of Theoretical Visibility (ZTV), landscape designations and viewpoints, it is	Larger format ZTV figures have been included in **Figures 6.4 – 6.6** with viewpoint locations illustrated in each

[23] Fiona Fyfe Associates, with Julie Martin Associates, Alison Farmer Associates and Countryscape. (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 October 2023).

Consultee	Consideration	How this is addressed in the Draft ES
Borough Council	considered that these lack clarity and detail at the scales provided. More detailed and larger scale ZTV, landscape designation and viewpoint figures will therefore be required for a 15km Study Area. An additional viewpoint figure combining both the ZTV and selected viewpoint locations will also be required to enable an appropriate assessment to be made on the suitability of the selected viewpoints and their locations.	figure. Larger format landscape designation figures are provided in **Figure 6.13b**. The LVIA Study Area will be 20km, in accordance with the Scoping Report and the separation distance ratio specified in the Guidance Note 46[24] section regarding the extent of search and Study Areas for tall structures.
Caerphilly County Borough Council	The selected viewpoint locations within Caerphilly County Borough are considered to be insufficient for a comprehensive assessment to be made. As such, recommended additional viewpoints from within the ZTV are identified (in the table below).	Four additional viewpoints have been included in the LVIA: - Viewpoint 8: Cefn Forest/ Blackwood Showfields; - Viewpoint 15: Gelligaer Common and Rhymney Valley Ridgeway Walk; - Viewpoint 17: Rhymney Valley Ridgeway Walk on Cefn y Brithdir; and - Viewpoint 18: Caerphilly Common. The list of viewpoint locations included in the LVIA is set out in **Table 6.7** in **section 6.4**.
Caerphilly County Borough Council	The assessment of the selected viewpoints will need to be supported with baseline photographs, wireframes and visualisations/photomontages.	Each set of visualisation figures for viewpoints in the LVIA are presented across a number of pages including viewpoint parameters, baseline photography, wirelines, cumulative wirelines (where relevant) and photomontages (where relevant).
Caerphilly County Borough Council	The assessment will also need to consider the effects on the sequential views of those experienced by users of the PRoW network, including key long distance walking and cycling routes within the ZTV. It should be noted that some PRoW are adjacent to or pass through the site and as such, wind turbines will be visible from close, mid and distant range views. The cumulative effect of constantly seeing views of the proposed wind turbines also needs to be addressed.	The assessment of visual effects from promoted long-distance footpaths is set out in **Table 6.22** in **Section 6.12**.
Caerphilly County Borough Council	In terms of cumulative impacts, it is considered that the cumulative impact assessment has the potential to be large and complex and it is important that cumulative effects are addressed	NRW have confirmed agreement with the Cumulative Study Area proposed by the Scoping Report in their Scoping Response (page 3): "*A cumulative*

[24] 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 September 2023).

Consultee	Consideration	How this is addressed in the Draft ES
	as clearly as possible. In particular, regard must be had to existing and consented wind turbines at closer distances and in proximity to one another, as well as instances where receptors (notably residential) view wind turbines from more than one aspect. The Study Area should be clearly defined at 30km and cumulative ZTVs should also be carried out at a more detailed Study Area of 15km radius at a suitably detailed scale. The cumulative assessment should include wind turbines that are operational, consented and in the planning system. In respect of the latter, it is noted that the recently submitted DNS Mynydd Maen Wind Farm (DNS/3276725) has not been included in Table 5.1 of the SR. This should be rectified with Mynydd Maen Wind Farm included within the cumulative impact assessment.	*study area of 23km as referenced at 5.3.4 is considered appropriate*." A Cumulative Study Area of 23km is considered appropriate for the Proposed Development, with reference to cumulative assessment parameters previously agreed with PEDW: - Mynydd Carn y Cefn (eight turbine scheme with a proposed blade tip height of 180 metres) – Cumulative Study Area of 28km; and - Mynydd y Glyn (seven turbine scheme with a proposed blade tip height of 155 metres) – Cumulative Study Area of 26km. The list of cumulative wind energy developments for inclusion in the CLVIA is set out in **Table 6.6** in **section 6.4** and includes Mynydd Maen Wind Farm.
Caerphilly County Borough Council	With regards to residential amenity, it is agreed that a separate Residential Visual Amenity Assessment will need to be undertaken in accordance with The Landscape Institute Technical Guidance Note 2/19 (2019). The 2km Study Area proposed is also considered to be acceptable as residents within this distance range are likely to experience potentially significant visual effects.	The Residential Visual Amenity Assessment (RVAA) will be set out in **Appendix 6K** of the final ES. A summary of the expected conclusions of the RVAA is provided in **Section 6.12**. The assessment methodology used in the RVAA is set out in **Appendix 6A**.
Caerphilly County Borough Council	In respect of the evaluation of landscape and visual effects (Table 5.4), it is considered that the use of four differences in the Magnitude of Change and evaluation of Landscape and Visual Sensitivity is insufficient to reflect the complexity of the range of magnitude of change and landscape/visual sensitivity. As such, it is recommended that five categories are used within the matrix, ranging from negligible, low, medium, high to very high.	A very high magnitude of change is included in the assessment methodology, summarised in **Section 6.8 (Table 6.13)** and set out in detail in **Appendix 6A**. The assessment methodology applies six assessment criteria for the Magnitude of Change resulting from the Proposed Development. These criteria are zero, very low, low, medium, high and very high and are deemed appropriate in assessing the range and complexity potential effects. The judgement of Landscape and Visual Sensitivity retains four assessment criteria.
Torfaen County Borough Council	As outlined in consultee responses we have recently been consulted on a number of DNS applications for wind turbines. Due to their proximity to this site and the potential cumulative impacts then it is advised that these	The list of cumulative wind energy developments for inclusion in the CLVIA is set out in **Table 6.6** in

Consultee	Consideration	How this is addressed in the Draft ES
	developments are assessed when considering the cumulative impacts of the proposal. The other proposals, particularly at Mynydd Maen which is potentially close enough to be perceived as one joint wind farm with the Trecelyn proposal…There are no additional sites requested for inclusion in Table 5.1	**section 6.4** and includes Mynydd Maen Wind Farm.
Torfaen County Borough Council	An additional viewpoint within Torfaen at Foxhunter's Car Park is requested on the basis that there is known visibility towards the proposal site at this location.	A viewpoint has been included in the LVIA from the summit of The Blorenge (Viewpoint 20), approximately 1.3km northeast of Foxhunter's Car Park. The LVIA has been prepared on the basis of a precautionary assumption that a 'reasonable worst-case' scenario will be assessed in respect of each receptor, which accords with the approach required under GLVIA3. Views towards the Proposed Development would be partially obscured by the existing mast structures and built form of the Blorenge Weather Station from Foxhunter's Car Park. The viewpoint at the summit of The Blorenge is considered representative of the potential worst-case visibility of the Proposed Development and consequently the potential maximum effects upon visual receptors in this area. The list of viewpoint locations included in the LVIA is set out in **Table 6.7** in **section 6.4**.
Torfaen County Borough Council	It is also considered that due to its international quality, the WHS (Blaenavon Industrial Landscape World Heritage) should be referenced within Table 5.3 and its sensitivity should generally be given further consideration/ acknowledgement within the LVIA work.	The Scoping Report confirms in paragraph 5.2.17 that the WHS will be considered as part of the assessment of effects upon the **Historic Environment** in **Chapter 7**.
NRW	Chapter 5 (of the Scoping Report) refers to NRW GN46 and refers at 5.2.3 to a search area and Study Area of 23km radius. GN46 recommends a search area of 23km and Study Area of 20km for turbines of this height. Figures in the submission e.g., 5.1 show different search and Study Areas, presumably based on this recommendation.	The LVIA Study Area will be 20km, in accordance with the separation distance ratio (1:133) specified in the Guidance Note 46 section regarding the extent of search and Study Areas for tall structures.
NRW	Chapter 5 at 5.2.4 considers that significant landscape effects upon LANDMAP aspect areas are unlikely in excess of 10km from the development and at 5.2.5 that significant visual effects are highly unlikely in excess of 10km. It is	The application of the filtering process outlined in Using LANDMAP in Landscape and Visual Impact

Consultee	Consideration	How this is addressed in the Draft ES
	acknowledged that this may vary and so visual receptors at viewpoints between 10-20km have been included and that viewpoint analysis will establish the maximum distance at which likely significant effects are sustained. This approach does not follow the guidance in GN46, including the filtering process referred to at 5.2.21. LANDMAP outstanding and high visual and sensory aspect areas, with highly sensitive visual receptors, such as those found in National Parks and AONBs have the potential for significant effects up to 20km. We advise that the filtering process in GN46 is followed, rather than a 10km detailed Study Area for landscape effects.	Assessments (GN46)[25] is set out in **Appendix 6B** and is illustrated in **Figures 6.10a-e**. The viewpoint assessment and analysis of likely significance threshold contained within **Appendix 6J** has been used to scope the LVIA. This indicates that no significant effects are anticipated beyond 9.4km, including for high sensitivity receptors, and provides the evidence for scoping out local and regional landscape and visual receptors beyond 10km. This provides a proportionate approach which concentrates the assessment upon the 52 LANDMAP Aspect Areas most likely to experience higher magnitudes of change within 10km of the Proposed development rather than the 148 LANDMAP Aspect Areas derived from the filtering process reported in **Appendix 6B**. The Wye Valley AONB has been scoped out from further consideration as agreed with PEDW.
NRW	The Landscape Character Areas within the National Park likely to be affected are the Blorenge Hills and Slopes (Landscape Character Area 15) and Mynyddoed Llangatwg and Llangynidr (Landscape Character Area 9).	The assessment of effects on landscape character, as defined by the BBNP Landscape Character Assessment[26], is set out in **Appendix 6I** and is illustrated in **Figure 6.12**.
NRW	We agree with the selection of 4 viewpoints within the National Park.	Four viewpoints from within BBNP have been included in the LVIA: - Viewpoint 11: Little Mountain; - Viewpoint 13: Mynydd Garnclochdy; - Viewpoint 20: The Blorenge; and - Viewpoint 24: Trig point at Mynydd Llangynidr. The list of viewpoint locations included in the LVIA is set out in **Table 6.7** in **section 6.4**.

[25] 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 September 2023).

[26] Fiona Fyfe Associates, with Julie Martin Associates, Alison Farmer Associates and Countryscape. (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 October 2023).

Consultee	Consideration	How this is addressed in the Draft ES
NRW	We agree that the Wye Valley AONB can be scoped out of the assessment. We consider landscape and visual effects at distances over 23km are unlikely to be significant.	Noted, the Wye Valley AONB is not included in the LVIA, as per the Scoping Report.
NRW	The updated ZTV analysis indicates impacts may be greater elsewhere within LCA 9 Mynyddoedd Llangatwg & Llangynidr than at Viewpoint 24. This is because the updated ZTV shows only 2 turbines may be visible at viewpoint 24, whereas 4 turbines are expected to be visible elsewhere. We advise including an additional viewpoint from an area within LCA 9 where visibility of 4 turbines is expected.	The assessment of effects on landscape character, as defined by the BBNP Landscape Character Assessment[27], is set out in **Appendix 6I** and considers potential visibility of the Proposed Development across LCAs as a whole, rather than from a single static position, with reference to the distribution of theoretical visibility illustrated by the ZTV. Viewpoint 24 (**Figures 6.42a-g**) is representative of elevated long-distance views available to users of the PRoW network and open access land within parts the BBNP on the northern edge of the LVIA Study Area and demonstrates visibility of three turbines associated with the Proposed Development.

6.4 Data gathering methodology

Study Area

LVIA Study Area

6.4.1 Using *LANDMAP in Landscape and Visual Impact Assessments (GN46)*[28] advises that the LVIA Study Area for structures of a height of 109m to 145m should extend to 20km to 24km distant from each of the proposed turbine locations. As agreed during the consultation process, a LVIA Study Area of 20km has been utilised for the Proposed Development which has a maximum turbine height of 145m to blade tip. This LVIA Study Area is 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.

[27] Fiona Fyfe Associates, with Julie Martin Associates, Alison Farmer Associates and Countryscape. (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 October 2023).

[28] 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 September 2023).

Cumulative LVIA Study Area

6.4.3 On the basis of the consultation responses, the cumulative Study Area extends to 23km as illustrated in **Figure 6.7** and the cumulative ZTVs presented in **Figures 6.16a-e**.

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 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	National Landscape Character Areas[29]	High-level baseline information on landscape character which sets the context for local LANDMAP data.
	LANDMAP Geological Landscape (GLAA), Landscape Habitats (LHAA), Visual and Sensory (VSAA), Historic Landscape (HLAA) and Cultural Landscape (CLAA) GIS dataset and evaluations.	Baseline information on landscape character in Wales, recorded and evaluated in a nationally consistent data set.
	Special Landscape Areas (SLAs) dataset	Baseline information on the spatial distribution of SLAs within South Wales
BBNP Authority	*Y Bannau The Future. A Management Plan for Bannau Brycheiniog National Park 2023-2028*[30]	Baseline information on the special qualities of the National Park.
	Brecon Beacons National Park Landscape Character Assessment[Error! Bookmark not defined.]	Baseline information on landscape character within the National Park.

[29] Natural Resources Wales. (2013). National Landscape Character Areas (NLCA) map and descriptions. (online). Available at: https://naturalresources.wales/evidence-and-data/maps/nlca/?lang=en (Accessed September 2022).
[30] Bannau Brycheiniog National Park Authority. (2023) Y Bannau The Future. A Management Plan for Bannau Brycheiniog National Park 2023-2028. (online). Available at: https://future.bannau.wales (Accessed October 2023).

Caerphilly County Borough Council (CCBC)	*Designation of Special Landscape Areas*[31]	Provides baseline information on the SLAs within the area administered by CCBC.
	Designation of Visually Important Local Landscapes[32]	Provides baseline information on the VILLs within the area administered by CCBC.
	Public Rights of Way – online mapping resource[33]	Provides the location and reference for PRoW within the area administered by CCBC.
Blaenau Gwent County Borough Council (BGCBC)	*Proposals for Designation of Special Landscape Areas in Blaenau Gwent*[34]	Provides baseline information on the SLAs within the area administered by BGCBC.
Blaenau Gwent County Borough Council (on behalf of five local authorities that cover the Heads of the Valleys Study Area)	*Heads of the Valleys Smaller Scale Wind Turbine Development – Landscape Sensitivity and Capacity Study*[35]	This study covers five local authorities including the host local authority: Caerphilly County Borough Council plus Blaenau Gwent County Borough Council; Torfaen County Borough Council, Rhondda Cynon Taff Borough Council; and Merthyr Tydfil County 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.
Torfaen County Borough Council (TCBC)	*Designation of Special Landscape Areas*[36]	Provides baseline information on the SLAs within the area administered by TCBC.
Newport City Council (NCC)	*Designation of Special Landscape Areas* [37]	Provides baseline information on the SLAs within the area administered by NCC.
Sustrans	National Cycle Routes[38]	Provides details of National Cycle routes within the LVIA Study Area.

[31] TACP. (2008). Designation of Special Landscape Areas. (Online). Available at: https://apps.caerphilly.gov.uk/LDP/Examination/PDF/SB47.pdf (Accessed October 2023).
[32] 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 October 2023).
[33] CCBC. (2023). Public Rights of Way – Online Mapping Resource. (Online). Available at: https://caerphillycbc.maps.arcgis.com/apps/View/index.html?appid=16e6161474204099a3cef48ab061b315 (Accessed October 2023).
[34] Bronwen Thomas Landscape Architect. (2009). Proposals for Designation of Special Landscape Areas in Blaenau Gwent. (Online). Available at: https://www.blaenau-gwent.gov.uk/media/e1cchnlw/sd110.pdf (Accessed October 2023).
[35] 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 August 2023).
[36] TACP. (2011). Designation of Special Landscape Areas. (Online). Available at: https://www.torfaen.gov.uk/en/Related-Documents/Forward-Planning/SD67-DesignationofSpecialLandscapeAreas(versionuploadedMay2011.pdf (Accessed September 2023)
[37] TACP. (2009). Designation of Special Landscape Areas. (Online). Available at: https://www.newport.gov.uk/documents/Planning-Documents/LDP-2011-2026/Special-Landscape-Area-June-2013.pdf (Accessed September 2023)
[38] Sustrans. (2021). Map of the National Cycle Network. (Online). Available at: https://www.sustrans.org.uk/national-cycle-network (Accessed September 2023)

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 143m and 84.5m Above Ground Level (AGL) respectively, on the basis of the candidate turbine specification.

6.4.6 As set out within this Draft ES the maximum tip height for the Proposed Development is 145m, however, this LVIA has assessed to 143m to blade tip in accordance with candidate turbine. Variations to the turbine dimensions, within the overall maximum blade tip heights, could affect the overall appearance and proportion of the turbines and each option would need to be considered on a case-by-case basis. However, an additional 2m increase of the blade tip height to 145m would not alter the findings of this assessment. For the production of the final ES the LVIA will include an updated assessment of up to 145m blade tip.

6.4.7 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.

6.4.8 Five ZTV maps have been provided as follows:

- **Figure 6.2**: illustrates the ZTV calculated to blade tip height (143m) at 1:180,000 scale (at A3 paper size) and includes the locations of the 24 viewpoints included in the LVIA;
- **Figure 6.3**: illustrates the ZTV calculated to hub height (84m) at 1:180,000 scale (at A3 paper size) and includes the locations of the 24 viewpoints included in the LVIA;
- **Figure 6.4**: illustrates a detailed ZTV calculated to blade tip height (143m) at 1:90,000 scale (at A3 paper size) and includes the locations of the 24 viewpoints included in the LVIA;
- **Figure 6.5**: illustrates the ZTV calculated to blade tip height (143m) at 1:60,000 scale (at A0 paper size) and includes the locations of the 24 viewpoints included in the LVIA; and
- **Figure 6.6**: illustrates a detailed ZTV calculated to blade tip height (143m) at 1:25,000 scale (at A0 paper size) and includes the locations of viewpoints 1-16, 18 and 21.

6.4.9 Other existing and consented wind farms, and wind farm applications within the cumulative LVIA Study Area are shown on **Figure 6.7** and included in **Table 6.6**.

Table 6.6 Wind Farms relevant to the cumulative assessment as of 7th July 2023

Ref.	Name of wind farm	Local Authority	Number of wind turbines	Approximate distance from Proposed Development (m)	Height to blade tip (m)	Status
E01	Pen-y-Fan Industrial Estate	Caerphilly County	1	4,683	124	Existing

Ref.	Name of wind farm	Local Authority	Number of wind turbines	Approximate distance from Proposed Development (m)	Height to blade tip (m)	Status
E02	Oakdale Business Park	Caerphilly County	2	4,931	130	Existing
E03	Pen Y Fan Ganol Farm	Caerphilly County	1	6,423	74	Existing
E04	Bryn Ysgawen Farm	Caerphilly County	1	6,634	77	Existing
E05	Tyle Crwth	Caerphilly County	1	6,971	76	Existing
E06	Gelli-wen Farm	Caerphilly County	1	9,708	79	Existing
E07	Cruglwyn	Caerphilly County	2	10,487	83	Existing
E08	Solutia	Newport City	2	15,048	130	Existing
E09	Pen Bryn Oer	Caerphilly County	3	16,018	77	Existing
E10	Tesco Distribution Centre	Newport City	2	19,712	100	Existing
E11	Ferndale	Rhondda Cynon Taf	8	23,649	73	Existing
C01	Llwyncelyn Farm	Rhondda Cynon Taf	2	19,588	125	Consented
A01	Mynydd Llanhilleth	Blaenau Gwent/ Torfaen	12	2,756	180	Application
A02	Mynydd Carn-y-Cefn	Blaenau Gwent	8	6,026	180	Application
A03	Twyn Hywel	Caerphilly County	14	10,222	200	Application
A04	Manmoel	Blaenau Gwent	5	10,598	180	Application
A05	Bryntail Farm	Rhondda Cynon Taf	2	14,463	71	Application
A06	Pen March	Caerphilly County	6	19,626	180	Application
A07	Mynydd Y Glyn	Rhondda Cynon Taf	7	19,828	180	Application
S01	Mynydd Maen	Caerphilly County	16	944	149.9	Scoping
S02	Abertillery	Blaenau Gwent/ Torfaen	7	6,704	180	Scoping

6.4.10 Five 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 five ZTVs and the schemes included in each are as follows:

- **Figure 6.16a**: Cumulative Zone of Theoretical Visibility (ZTV) in relation to Mynydd Maen wind farm;
- **Figure 6.16b**: Cumulative ZTV in relation to Abertillery and Mynydd Llanhilleth wind farms;
- **Figure 6.16c**: Cumulative ZTV in relation to Mynydd Carn-y-Cefn and Manmoel wind farms;
- **Figure 6.16d**: Cumulative ZTV in relation to Oakdale and Pen Y Fan Industrial Estate and Pen Y Fan Ganol Farm wind turbines; and
- **Figure 6.16e**: Cumulative Zone of Theoretical Visibility (ZTV) in relation to Pen March and Twyn Hywel wind farms.

Field Survey

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

- A field survey in April 2023 to obtain viewpoint photography and check the validity of the viewpoints listed in Table 5.2 of the Environmental Impact Assessment Scoping Report[39] issued in April 2022;
- A second field survey in May 2023 to visit and obtain viewpoint photography from the viewpoint locations requested by consultees in the Scoping Direction, which was issued on behalf of the Welsh Ministers, on 2nd December 2022[40].

6.4.12 All photography has been undertaken in accordance with the LI's Visual Representation of Development Proposals and has been undertaken outside of the summer months (where possible), when vegetative screening was reduced, 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 Above Ground Level (AGL);
- A 50mm fixed focal length (prime) lens; and
- A professional quality tripod fitted with a panoramic head.

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

Viewpoint analysis

6.4.14 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.

6.4.15 The viewpoints selected for the assessment have been agreed with consultees including the relevant local authorities and NRW. The final viewpoint schedule is set out in **Table**

[39] Wood Group UK Ltd (on behalf of Pennant Walters Ltd). (2020). Trecelyn Wind Farm, Environmental Impact Assessment Scoping Report.
[40] PEDW. (2022). DNS: EIA Scoping Direction. ACS-02114-J9X4S6: Trecelyn Wind Farm.

6.7 which includes the reason for their selection and whether the viewpoints are representative, illustrative, or specific as defined in GLVIA3[14].

6.4.16 Visualisations have been prepared for each viewpoint to accord with SNH guidance and include 90° baseline photographs and wirelines (including cumulative wirelines where relevant), 53.5° wirelines and 53.5° and 90° photomontages in **Figures 6.19 – 6.42**. The viewpoint assessment for each of the 24 selected viewpoints is reported in **Appendix 6J**.

6.4.17 Cumulative wind farm developments that would be visible within the CLVIA Study Area have been illustrated as wirelines and follow the baseline photographs and wirelines in **Figures 6.19 – 6.42**.

Table 6.7 LVIA Viewpoint locations

VP No.	Viewpoint No. Title & Grid Ref	Minimum Separation Distance (km)*	Viewpoint Typology (GLVIA3) / Principal Receptor(s)	Comment
1	Open Space on Coed Celynen Drive, High Meadow E321501, N195968	1.4 (T4)	Representative – residential receptors	Representative of the views available to residents on the western side of the Ebbw Valley at its closest point to the Proposed Development.
2	Open space on Old Pant Road, Pantside E321975, N197866	1.5 (T2)	Representative – residential receptors	Representative of the views available to residents in elevated locations on the eastern side of the Ebbw Valley to the immediate west of the Proposed Development.
3	Trig point at the summit of Mynydd Maen/ Mynydd Llwyd E325996, N197811	2 (T1)	Representative – recreational receptors	Representative of the views available to users of the Taith Torfaen Anytime Challenge path, the local PRoW network and the open access land to the immediate east of the Proposed Development.
4	Open space on Fflorens Road, Treowen E320863, N198034	2.6 (T2)	Representative – residential receptors	Representative of the views available to residents in elevated locations on the western side of the Ebbw Valley to the west of the Proposed Development.
5	Twmbarlwn Iron Age Fort Summit E324200, N192612	3.6 (T4)	Specific and representative – recreational receptors	Northern side of summit noted on OS maps as providing 360 degrees views. Popular with locals and visitors with carpark provided. Representative of the clearest views likely to be available to users of the Cambrian Way and Taith Torfaen Anytime Challenge path to the south of the Proposed Development.

VP No.	Viewpoint No. Title & Grid Ref	Minimum Separation Distance (km)*	Viewpoint Typology (GLVIA3) / Principal Receptor(s)	Comment
6	PRoW east of St. Illtyd E322079, N201870	4.2 (T1)	Representative - residential and recreational receptors	Representative of the middle-distance views available to residents of elevated properties and users of the dense PRoW network in the vicinity of St. Illtyd/ Llanhiledd to the north of the Proposed Development.
7	Pen-y-Fan Pond Country Park E319660, N200695	5.1 (T1)	Specific – recreational receptor	The view available to visitors to the park. The clearest view of the Proposed Development is likely to be from the PRoW/ open access land on track through northern part of the park.
8	Cefn Fforest/ Blackwood Show Fields E316737, N197951	6.4 (T4)	Representative - residential and recreational receptors	Residential area and users of a popular recreational area.
9	Rhymney Valley Ridgeway Walk E317091, N192654	6.6 (T4)	Representative - recreational receptors	SLA, users of the PRoW long distance path.
10	Waun Wen/ Gwastad E323618, N205030	6.9 (T1)	Representative – recreational receptors	Located on the southern flank of Waun Wen/Gwastad. Representative of the middle-distance views available to users of the Taith Torfaen Anytime Challenge path, the local PRoW network and the open access land to the north of the Proposed Development.
11	Little Mountain, BBNP E328990, N203043	7 (T1)	Representative – recreational receptors	Located to the west of Pontypool Golf Club on the edge of the closest part of the BBNP within the preliminary blade tip ZTV. Representative of the middle-distance views available to visitors to the BBNP and users of the Cambrian Way, Monmouthshire Way and Taith Torfaen Anytime Challenge path to the north-east of the Proposed Development.
12	Sirhowy Valley Walk, Manmoel E317778, N203392	8.2 (T1)	Representative - residential and recreational receptors	Representative of the middle-distance views available to residents of elevated properties and users of the Sirhowy Valley Walk in the vicinity of Manmoel,

VP No.	Viewpoint No. Title & Grid Ref	Minimum Separation Distance (km)*	Viewpoint Typology (GLVIA3) / Principal Receptor(s)	Comment
				to the north-west of the Proposed Development.
13	Mynydd Garnclochdy, BBNP E329166, N206055	9.4 (T1)	Specific – recreational receptor	The middle-distance view available to users of the Cambrian Way and open access land within the BBNP. One of the few, small areas of the BBNP to the north-east of the Proposed Development to fall within the preliminary ZTV.
14	Northern edge of Gelligaer E313326, N197073	9.6 (T4)	Representative - residential receptors	Representative of the middle-distance views available to residents of elevated properties on the northern edge of Gelligaer, to the west of the Proposed Development.
15	Gelligaer Common and Rhymney Valley Ridgeway Walk E312691, N199372	10.1 (T4)	Specific and representative - recreational receptors	Historic Landscape, SLA, and users of the Public Right of Way (PRoW) long distance path.
16	Summit of Mynydd Carn-y-Cefn E318714, N208498	11.6 (T1)	Representative – recreational receptors	Representative of the long-distance views available to users of the local PRoW network and open access land on Mynydd Carn-y-Cefn and other elevated areas to the north of the Proposed Development.
17	Rhymney Valley Ridgeway Walk on Cefn y Brithdir E313068, N203596	12.1 (T2)	Representative – recreational receptors	Representative of the long-distance views available to users of the Rhymney Valley Ridgeway Walk, local PRoW network and open access land on Cefn Y Brithdir, to the west of New Tredegar, to the north-west of the Proposed Development.
18	Caerphilly Common E315308, N185545	12.9 (T4)	Specific – recreational receptor	SLA, Caerphilly Common, users of the popular viewpoint.
19	Rhymney Valley Ridgeway Walk on Mynydd Mieo E311435, N188372	13.7 (T4)	Representative – recreational receptors	Representative of the long-distance views available to users of the Rhymney Valley Ridgeway Walk, local PRoW network and open access land on elevated areas within the highly fragmented ZTV to the

VP No.	Viewpoint No. Title & Grid Ref	Minimum Separation Distance (km)*	Viewpoint Typology (GLVIA3) / Principal Receptor(s)	Comment
				south-west of the Proposed Development.
20	The Blorenge E326986, N211842	14 (T1)	Specific – recreational receptor	Long-distance view from this popular viewpoint within the BBNP and Blaenavon Industrial Landscape World Heritage Site, to the north of the Proposed Development.
21	Brynderwen, Bettws Newy E335222, N206786	14.1 (T1)	Representative - residential and recreational receptors	Located on the Usk Valley Walk within Brynderwen Registered Historic Park and Garden. Representative of the long-distance views available to residents and those engaged in outdoor recreation in this part of the valley of the River Usk, to the north-east of the Proposed Development.
22	Wales Coast Path, Newport E331082, N182776	15.5 (T4)	Representative - recreational receptors	Located on the Wales Coast Path near West Usk Lighthouse at the confluence of the River Usk and Ebbw River, south of Newport. Representative of the long-distance views available to users of sections of the Wales Coast Path that fall within the preliminary blade tip ZTV to the south of the Proposed Development.
23	Bertholey House, Newbridge on Usk E339542, N194489	16 (T1)	Representative - residential and recreational receptors	Located on the Usk Valley Walk within Bertholey House Registered Historic Park and Garden, to the south-east of the Proposed Development. Representative of the long-distance views available to residents and those engaged in outdoor recreation in parts of the south-eastern quadrant of the LVIA Study Area within the blade tip ZTV.
24	Trig point at Mynydd Llangynidr, E314711, N215924	20.1 (T1)	Representative - recreational receptors	Representative of the most elevated long-distance views available to users of the PRoW network and open access land in parts of the BBNP within the preliminary ZTV, on the northern edge of the LVIA Study Area.

6.5 Overall baseline

Current baseline

The Proposed Development Site and immediate surrounding area

6.5.1 The Proposed Development Site is located on the upper slopes (between approximately 340m and 400m AOD) of ridges that extend to the west and southwest of the massif formed by Mynydd Llwyd, Mynydd Twyn-glas and Mynydd Maen. The southern and central parts of the Proposed Development Site are separated from Mynydd Maen, to the east, by the deeply incised and heavily forested valleys of Nant Gwyddon, which also extends to the immediate south of the Proposed Development Site before joining the Ebbw River at Abercarn. To the north, the Proposed Development Site is separated from the Cefn Crib/ Mynydd Llanhilleth massif by Cwm y Glyn, which runs eastward toward Pontypool, and by the valley of a minor tributary of the Ebbw River to the west. To the west of the Proposed Development Site several tributaries of the Ebbw River have created a complex of ridges and valleys that reduce in elevation westward toward the valley of the Ebbw River. The most southerly of these adjacent to the southern and central parts of the Proposed Development Site is the steep-sided Cwm Hafod-fach, the northern end of which is occupied by the Hafod sandstone quarry. The northern part of the Proposed Development Site extends westward as far as the much more open valley of Nant Gawni.

6.5.2 As noted above, the Proposed Development Site is located on spurs extending to the west and southwest of the massif formed by Mynydd Llwyd, Mynydd Twyn-glas and Mynydd Maen. This massif forms the south-easterly part of an extensive area of steeply incised uplands usually referred to as the South Wales Valleys. To the east of the massif lies a complex topography of undulating low hills either side of the Afon Llwyd, whilst to the west, the Ebbw River occupies the first of a series of steeply incised valleys on a north/ south alignment.

6.5.3 The southern and central parts of the Proposed Development Site are located near the top of the ridge between Nant Gwyddon, to the east, and Cwm Hafod Fach, to the west. The elevation of the larger, southern part ranges from approximately 290m AOD in the southwest to a little over 350m AOD in the east. Elevations within the smaller, central part of the Proposed Development Site are between approximately 345m AOD and 355m AOD. Elevations within the northern part of the Proposed Development Site range from approximately 410m AOD in the east to approximately 320m AOD in the west.

6.5.4 To the east, the Mynydd Maen/Mynydd Llwyd massif rises to 472m AOD. To the west of the Proposed Development Site, the elevation of the land between the Ebbw and Sirhowy Rivers varies considerably, reaching approximately 385m AOD on Mynydd y Lan in the south and dropping to less than 160m AOD between Newbridge and Pontllanfraith before rising to approximately 275m AOD to the south of Oakdale opposite the northern part of the Proposed Development Site. Further north, elevations increase to 409m AOD at Mynydd Pen-y-fan, 443m AOD at Mynydd Llanhilleth, 489m AOD at Byrgwm and 551m AOD at Gwastad.

6.5.5 The Proposed Development Site is connected by a single minor road that runs in an arc from Abercarn in the south to its junction with the minor road between Newbridge and Hafodyrynys in the north. The northern part of the Proposed Development Site is host to a section of a 132kV overhead electricity transmission line supported by steel lattice towers. This line traverses the Proposed Development Site on a broadly east/ west alignment, climbing from the valley of the Ebbw River in the west, and attaining a maximum altitude

of approximately 460m AOD in the vicinity of the communication masts on Mynydd Llwyd to the east.

6.5.6 Land-use across the Proposed Development Site predominantly comprises a mosaic of small and medium-sized fields that are generally given over to pasture, although aerial photography indicates that some fields may occasionally be used for arable cultivation. Field boundaries, particularly in the southern part of the Proposed Development Site, comprise hedgerows that have been allowed to grow out to form rows of mature hawthorn. Remnant stone walls reinforced by post and wire fencing are apparent along the edge of the minor road within the Proposed Development Site. The southern part of the Proposed Development Site is abutted by extensive coniferous forestry within Nant Gwyddon to the east and a mix of deciduous woodland and coniferous forestry within Cym Hafod Fach to the west. Time-series aerial photography indicates that the coniferous forestry has been subject to substantial felling in recent years. Coniferous forestry also abuts the northern part of the Proposed Development Site within Cwm y Glyn to the north and Nant Gawni to the west. The eastern-most section of the northern Proposed Development Site extends onto the unenclosed and semi-improved or unimproved grassland on the western flank of Mynydd Llwyd.

6.5.7 With regard to Public Rights of Way (PRoW), the western section of the northern Proposed Development Site is traversed by a restricted byway which also runs adjacent to the western boundary. The eastern section of the northern parcel of the Proposed Development Site is traversed by a public footpath which also runs adjacent to the northern boundary with another public footpath running adjacent to the southern boundary. The southern part of the Proposed Development Site is traversed by a public footpath with another running along its eastern boundary and a bridleway along its north-western boundary. Both the central and northern parts of the Proposed Development Site abut the extensive area of open access land that covers most of the Mynydd Maen/ Mynydd Llwyd massif.

6.5.8 There are several residential properties within or within close proximity to the Proposed Development Site. Glan Shon Farm is located within the southern part of the Proposed Development Site and Cil-lonydd is located approximately 300m to the west of the central part of the Proposed Development Site. In relation to the northern part of the Proposed Development Site, Pen-y-Caeau Farm is located to the immediate north, Blaengwrney Farm to the immediate south and Cefn-rhos-y-bedd-uchaf approximately 300m to the west.

6.5.9 The nearest settlements to the Proposed Development Site are Hafodyrynys approximately 400m to the north, Pantside and Swffryd Bronawelon approximately 700m to the northwest and west respectively and the northern and eastern parts of Abercarn (Llanfach, Persondy, Celynen and High Meadow) between approximately 450m and 900m to the southwest. Other parts of Abercarn and parts of Newbridge/ Trecelyn and Crumlin are all located in the Ebbw valley within 2km to the west of the Proposed Development Site.

National Landscape Character

6.5.10 At the national scale of NRW's 48 National Landscape Character Areas[41] (NLCAs), the Proposed Development 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:

[41] Natural Resources Wales. (2013). National Landscape Character Areas (NLCA) map and descriptions. (online). Available at: https://naturalresources.wales/evidence-and-data/maps/nlca/?lang=en (Accessed September 2022).

- "*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 Rhymney.*
- *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, versus 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.*"

6.5.11 The distribution of the host and other NLCAs within the LVIA Study Area is shown in **Figure 6.9**.

LANDMAP

Introduction

6.5.12 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[42]. The filtering process described within GN46 is set

[42] 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 September 2023).

out in **Appendix 6B**. A landscape sensitivity assessment which considers both value and susceptibility in accordance with GLVIA3 is reported for each Aspect Areas included in the LVIA in **Appendix 6C**.

Geological Landscapes Aspect Areas (GLAAs)

6.5.13 The host GLAAs are shown in **Figure 6.10a**. The filtering process outlined in GN46 and recorded in **Appendix 6B** identified no GLAAs to be considered further in the assessment.

Landscape Habitats Aspect Areas (LHAAs)

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

- CYNONLH150.

6.5.15 The location of LHAAs in relation to the proposed turbine locations and the hub and blade tip ZTVs is shown on **Figure 6.10b**. A baseline description is provided in **Appendix 6C**.

Visual and Sensory Aspect Areas (VSAAs)

6.5.16 The filtering process outlined in GN46 and recorded in **Appendix 6B** identified 52 VSAAs within the 20km Study Area. The Viewpoint Analysis presented in **Appendix 6J** identified no significant visual effects beyond a distance of 9.4km. As a consequence, the landscape assessment has been re-scoped to include only those VSAAs which lie within or partially within a 10km buffer of the proposed turbines. The landscape assessment therefore considers the following 16 VSAAs:

- BLNGWVS119 Mynydd Pen-y-fan;
- BLNGWVS226 St. Illtyd;
- BLNGWVS404 Ebbw/ Ebbw Fach valley;
- BLNGWVS542 Garden Festival;
- BLNGWVS688 Mynydd Bedwellte;
- BLNGWVS713 Sirhowy, Ebbw Fawr and Ebbw Fach valley;
- BLNGWVS808 Cwm Tyleri;
- CYNONVS129 Mynydd Y Grug.
- CYNONVS404 Gelligaer Common;
- CYNONVS854 Mynydd Y Lan;
- MNMTHVS010 Mynydd Garnclochdy;
- TRFNVS019 Unnamed;
- TRFNVS022 Unnamed;
- TRFNVS024 Unnamed;
- TRFNVS027 Unnamed;
- TRFNVS033 Unnamed; and

6.5.17 The location of these VSAAs in relation to the proposed turbine locations and the hub and blade tip ZTVs is shown on **Figure 6.10c**. A baseline description is provided in **Appendix 6C**.

Historic Landscape Aspect Areas (HLAAs)

6.5.18 The outcome of filtering process outlined in GN46 and recorded in **Appendix 6B** identified 87 HLAAs within the 20km Study Area, 27 of which lie within or partially within 10km of the proposed turbines and are therefore considered further in the landscape assessment as follows:

- BLNGWHL022 HAA 22 Mynydd Carn-y-cefn;
- BLNGWHL025 HAA 25 Mynydd Coety;
- BLNGWHL034 HAA 34 Cwmtillery;
- BLNGWHL037 HAA 37 Maes Mawr;
- BLNGWHL041 HAA 41 Hafod y dafal;
- BLNGWHL044 HAA 44 St Illtyd Fieldscape;
- BLNGWHL045 HAA 45 Llanhilleth;
- CYNONHL004 Pen-y-fan Industrial Estate;
- CYNONHL290 Llanfabon and Llanbradach;
- CYNONHL426 Maes Manor Hotel;
- CYNONHL465 Ebbwy Settlement Corridor;
- CYNONHL556 Mynydd Bach and Mynydd-y-Grug;
- CYNONHL558 Cwm Dows and Cwm Philkins;
- CYNONHL602 Nant Bargod Rhymni; and
- CYNONHL634 Gelligaer and Llancaiach;
- CYNONHL660 Blackwood and the Sirhowy Valley;
- CYNONHL878 Mynyddau Eglwysilian a Meio;
- MRTHRHL015 HL015 Gelligaer Common (west);
- NWPRTHL001 Michaelston le Fedw Rolling Hills;
- TRFNHL011 HL011 Pontypool Park;
- TRFNHL012 HL012 Pontypool;
- TRFNHL013 HL013 Cilgoegan and Lasgarn;
- TRFNHL014 HL014 Mynydd Garnclochdy;
- TRFNHL015 HL015Cwm Afon;
- TRFNHL017 HL017 Waun-wen and Mynydd Llanhilleth: V;
- TRFNHL018 HL018 Glyn Trosnant and Hafod-yr-Ynys;
- TRFNHL019 HL019 Waun-wen and Mynydd Llanhilleth.

6.5.19 **Figure 6.10d** illustrates the location of these HLAAs in relation to the proposed turbine locations and the hub and blade tip ZTVs. A baseline description is provided in **Appendix 6C**.

Cultural Landscape Services Aspect Areas (CLSAAs)

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

- CYNONCLS026 - Mynydd Llwyd and Mynydd Maen; and
- CYNONCLS050 – Mynydd Maen.

6.5.21 The location of the CLSAAs in relation to the proposed turbine locations and the hub and blade tip ZTVs is shown on **Figure 6.10e.** No description is provided for the CLSAAs in the LANDMAP survey as recorded in **Appendix 6C**.

Landscape designations

Nationally designated landscapes

6.5.22 The following nationally designated landscapes fall wholly or partly within the Study Area:

- BBNP; and

- Wye Valley AONB.

6.5.23 With respect to the Wye Valley AONB, this has been scoped out from further consideration as agreed with PEDW and documented in **Table 6.4** and **Table 6.12**.

BBNP: Special Qualities

6.5.24 *Y Bannau The Future, A Management Plan for Bannau Brycheiniog National Park 2023-2028* sets out the special qualities of the National Park as follows:

- "*Special Landscapes:*
  - *Sweeping grandeur and outstanding natural beauty: The National 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, grouped around landscape, community, experiences and wildlife.*
- *Special Communities:*
  - *An 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."*
  - *A 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 National 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 National 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:*

- *Mosaic of Diversity: The geology and climate vary greatly across the Park creating an elaborate patchwork landscape rich in biodiversity. The Park hosts heathlands, grasslands and woodlands, with uplands and lowlands, natural lakes and riparian habitats. The Park contains limestone pavement and blanket bogs of international and national importance. Several endangered species survive in the Park, including some for which the Park is their furthest extent of their natural range.*
- *Living Landscape: An abundance of wildlife thrives in semi-natural habitats that have been lived in and shaped by human settlement for millennia. The landscape is interlaced with ancient hedgerows bustling with life, enclosing wildlife-rich hay meadows, and primeval woodlands that cloak some steep-sided valleys. Veteran trees adorn the landscape, carrying the scars of centuries of changing dependency on their resources. Heather-dominated uplands maintained through grazing by horses, sheep and cattle are a testament to the intimate relationship between biodiversity and farming.*"[30]**Error! Bookmark not defined.**

BBNP: Landscape Character

6.5.25 The *BBNP Landscape Character Assessment*[23] defines 15 Landscape Character Areas (LCAs) within the National Park, two of which coincide with the ZTV and LVIA Study Area as shown in **Figure 6.13** as follows:

- LCA 9: Mynyddoedd Llangatwg and Llangynidr; and
- LCA 15: Blorenge Hills and Slopes.

6.5.26 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 *BBNP Landscape Character Assessment*[23] is included in the landscape assessment tables for the LCAs included in **Appendix 6I**.

6.5.27 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*"[43].

6.5.28 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*" 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)*"[43]. 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*" [43] with sensitivities relating to "*Inappropriate development, (including outside the National Park) which affects skylines and/or views.*" [43] 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*

[43] Fiona Fyfe Associates, with Julie Martin Associates, Alison Farmer Associates and Countryscape. (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 October 2023).

exist despite its proximity to centres of population" [43] and "*Protect the long views from the area, including those southwards to land outside the National Park*" [43].

6.5.29 LCA 15: Blorenge Hills and Slopes[44] - The pertinent distinctive characteristic of this landscape relates to the *"Highest land of Blorenge in the north-west of the LCA, extending southwards in a craggy ridge along the western boundary of the LCA… The high plateau of the Blorenge is easily accessible by car (B4246) and the public can enjoy panoramic views from the high car park."*[44]

6.5.30 Its special qualities include (under the scenic quality and sense of place criteria) "*High scenic quality resulting from the harmonious juxtaposition of moorland, woodland and pasture. Distinctive concave landforms, the Blorenge ridge and long views across the Usk valley create a strong sense of place, enhanced by the bluebell carpets, deep lanes and woodland.*" [44] Within the perceptual qualities criteria, the special qualities include *"Valley sides are exceptionally peaceful, with a sense of enclosure, timelessness and very few detracting influences. Moorland feels more open and exposed, with longer views over surrounding landscapes."* [44] These special qualities result in related sensitivities the most relevant being the *"introduction of visually intrusive features into views"* [44].

6.5.31 The LCA-Specific Management Guidelines continue on these themes and include guidelines to *"Protect the long views from the area, including those to land outside the National Park"* [44] *and "Plan to reduce the visual impact of development beyond the National Park boundary."* [44]

Locally designated landscapes

6.5.32 The following locally designated landscapes are entirely or partly located within 10km of the proposed turbines and coincide with the hub height and blade tip ZTVs and have therefore been scoped into the assessment as set out in **Table 6.11**:

- Caerphilly Visually Important Local Landscapes (VILLs):
  - NH2.3 Abercarn; and
  - NH2.2 Manmoel.
- Caerphilly Special Landscape Areas (SLAs):
  - NH1.2 Gelligaer Common;
  - NH1.3 Mynydd Eglwysilan;
  - NH1.4 North Caerphilly; and
  - NH1.6 Myynddislwyn.
- Torfaen SLAs:
  - C2/4 South West Uplands;
  - C2/5 Blaenavon Heritage Landscape.
  - C2/6 Eastern Uplands;
  - C2/7 Afon Lwyd Valley; and
  - C2/8 Western Uplands.

[44] Fiona Fyfe Associates, with Julie Martin Associates, Alison Farmer Associates and Countryscape. (2012). *Brecon Beacons National Park Landscape Character Assessment. LCA 15 Profile* (Online). Available at: https://www.beacons-npa.gov.uk/wp-content/uploads/LCA-15-PROFILE_final_120930.pdf (Accessed October 2023).

- Blaenau Gwent SLAs:
  - ENV2.1 St. Illtyd Plateau and Ebbw Eastern Sides;
  - ENV2.2 Eastern Ridge and Mynydd James;
  - ENV2.3 Cwm Tyleri and Cwm Celyn;
  - ENV2.4 Mynydd Carn-y-Cefn and Cefn yr Arail; and
  - ENV2.6 Cefn Manmoel.

6.5.33 The locations of these areas are shown on **Figure 6.13a-b** in relation to the hub height and blade tip ZTVs for the Proposed Development. A description of the SLAs and their landscape qualities is set out in **Table 6.8**.

Table 6.8 Description and landscape qualities of SLAs

SLA reference and relevant viewpoint	Description and landscape qualities
Caerphilly VILLs	
NH2.3 Abercarn Viewpoints 3 and 5	The Landscape Qualities and Features of the 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."* [8, 31] Key Policy and Management Issues for this VILL, of relevance to the Proposed Development, include: • *"Forestry – maximise opportunities for planting broadleaf species to soften edges;* • *Field pattern conservation;* • *Value is below potential largely due to intrusion of pylons/ vertical elements."*[31]
NH2.2 Manmoel Viewpoint 12	The Landscape Qualities and Features of the 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*

SLA reference and relevant viewpoint	Description and landscape qualities
	quality. Unsympathetic division into paddocks is threatening the existing field patterns." [8, 32] The key management policies relate to the conservation of field patterns and sense of openness as well as controlling vegetation and boundary management practices.
Caerphilly SLAs	
NH1.2 Gelligaer Common Viewpoints 14 and 15	The recorded Landscape Qualities and Features of this SLA are as follows: • *"An extensive, increasingly rare upland landscape in south east Wales, exhibiting examples of continuity of land use from prehistoric times.* • *An open exposed landscape, it has distinct visual and sensory characteristics with extensive views over the coalfield plateau and up to the Brecon Beacons, together with the sense of wind noise and disturbance.* • *Designated as common land, the majority of the area exhibits typical upland heath vegetation.* • *There are a number of statutory and non-statutory environmental designations.* • *Its western edge is formed by the boundary with Merthyr Tydfil Borough along the Cefn Gelligaer and further south the Nant Caiach. The remainder of its boundary is established by the road network and settlement pattern around Penpedairheol and Bargoed, and along the Bargoed Rhymney Valley around Deri and Parc Cwm Darran.* • *The eastern flank of the SLA is typified by more rolling landscape pattern interspersed with woodland blocks, spinneys and hedgerows.* • *Many of the fields are improved grassland. There are a number of vegetation lined minor streams.* • *Today this is used by the cross valley B4254 road."*[31] The key management policies relate to the protection of upland habitats, historic/ cultural landscape features and boundary features. They also seek to conserve public access, lowland landscape buffers and resist settlement edge development pressures.
NH1.3 Mynydd Eglwysilan Viewpoint 19	This SLA incorporates the whole of the Mynydd Eglwysilan area to the north of Abertridwr and Senghenydd, together with the more lowland, agricultural landscapes around Nelson, and the Llancaiach Fawr estate. The recorded Landscape Qualities and Features of this SLA are as follows: • *"…this includes a breadth of landscape elements from open uplands in the south to more lowland landscape mosaics to the north. The latter having a wider range of habitats and elements.* • *It includes Llancaiach Fawr house and estate which forms an important historic and cultural landscape feature.* • *The recently developed Parc Penallta Country Park, an area of reclaimed colliery and waste, is also included.* • *The southern boundary has been extended to include Mynydd Meio, an upland ridge heath that affords panoramic views.* • *The area has a network of rights of way, including the Rhymney Valley Ridgeway Footpath, and a range of historic and cultural landscape relics, including old earthworks (e.g., Senghenydd Dyke), burial sites and other features indicating a long history of land use and occupation."*[31]

SLA reference and relevant viewpoint	Description and landscape qualities
	The key management policies relate to management to conserve lowland and upland habitats contributing to character as well protection of historic and cultural landscape elements. Protection from development pressures on settlement boundaries, the impact of overhead power lines and long-term management of forestry plantation, including at Llanbradach with resultant effects upon visual qualities of the landscape, are also listed.
NH1.4 North Caerphilly Viewpoint 9	The recorded Landscape Qualities and Features of this SLA are as follows: • *"The area runs along the eastern flank of the Rhymney Valley from Ystrad Mynach, down to Caerphilly/ Bedwas and across to Machen.* • *The northern boundary is provided by the Rhymney Valley Ridgeway Walk.* • *It is a relatively gentle, rolling valley side, rising up to 340 metres at Mynyddy Grug. The lower valley sides are characterised by a mosaic of landscape habitats of rough pasture, semi improved grassland interspersed with hedgerows, hedgerow trees and small spinneys.* • *To the area north of Machen a number of plantations dominate the landscape.* • *The area is traversed by a number of rights of way, with the major long distance path forming its northern boundary, being important for public access and recreational use.* • *There are areas of derelict and reclaimed land associated with former mining and quarrying industries."*[31] The key management policies relate to the protection of habitats associated with public access, field boundary features. Long-term management priorities include the effect of woodland and plantation on the visual character, the loss of character as a result of settlement edge development pressure and the potential to enhance the PRoW network.
NH1.6 Myynddislwyn	This SLA comprises a relatively small, but distinct landscape unit formed by the open, upland ridge of Mynydd y Lan to the north of Cwm Felin Fach and west of Abercarn. The recorded Landscape Qualities and Features of this SLA are as follows: • *"The open ridge is surrounded on two sides by plantations which form a distinctive backdrop to the settlements on the valley floors, covering the steep valley sides. It also includes the more enclosed agricultural area of Mynydd Islwyn. This reflects the value applied to the Landscape Habitats, Cultural Landscapes and Visual and Sensory aspect topics.* • *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. As a consequence, there is a variety of habitats from plantations to upland acid grasslands to more improved grasslands at Mynydd Islwyn. The latter also contains a mosaic of irregular boundary features."*[31] The key management policies relate to the retention of the open character of Mynydd y Lan as well as the protection of the farmed landscape, historic/ cultural landscape features and resistance to settlement edge development pressures. Long-term management of plantation and the associated effects on the visual qualities of the SLA are also a priority.
Torfaen SLAs	

SLA reference and relevant viewpoint	Description and landscape qualities
C2/4 South West Uplands Viewpoint 3	The SLA comprises an area of rising ground to the west of Cwmbran running up to the County Borough boundary along Mynydd Henllys and Mynydd Maen, including part of Upper Cwmbran. The Landscape Qualities and Features are described as follows: • *"An area of upland hillside and scarp slopes, typified by rough pasture, rising up to 460 metres AOD.* • *The southern section has extensive woodland cover, primarily coniferous but includes areas of ancient semi-natural broadleaved habitat, elsewhere it is characterised by dry terrestrial heath and unimproved acid grasslands.* • *The area also exhibits medieval and post medieval agricultural landscapes, such as on Mynydd Maen, with later industrial relics making it an archaeologically sensitive area.* • *The settlement of Upper Cwmbran predates the Newtown development and reflects the earlier development and land use of the area".*[36] The key management policies relate to the management of open upland landscapes, development of plantations, agricultural landscape features (field boundaries and woodlands) and the impacts resulting from recreational use.
C2/5 Blaenavon Heritage Landscape	The SLA includes the upland hinterland to Blaenavon which underpins the designated World Heritage Site. The Landscape Qualities and Features are described as follows: • *"A prominent area of open upland hillside and scarp with strongly defined slopes rising to the head of the valley, ranging between 390 and 470 metres AOD.* • *A large scale landscape, characterised by a sense of exposure, panoramic views and a strong sense of place with a simple set of defining features.* • *There are a range of upland habitats - bog, bare peat, flushes, springs, blanket bog and heathland. It forms the edge of the County Borough, abutting neighbouring authorities on the prominent skyline formed by the distinctive upland outcrops such as Coity Mountain and Cefn Coch.* • *It is closely associated with the Blaenavon World Heritage Site which forms a remarkable contribution of historic sites and features associated with the early iron and coal industries, the development of which is exemplified in the Big Pit Mining Museum to the north of Forgeside.".*[36] The key management policies relate to the management of the WHS and limiting the encroachment of development upon the SLA.
C2/6 Eastern Uplands Viewpoint 13	The SLA comprises an area formed by the upland ridge that forms the eastern boundary of Torfaen, formed by Mynydd-y-garn-fawr and Mynydd Garnclochdy. It abuts the BBNP in the areas of Upper Llanover and Blorenge. The Landscape Qualities and Features are described as follows: • *"Dominant ridgeline on the eastern flanks of the narrow Afon Lwyd Valley, rising up to 500 metres AOD at Mynydd-y-gam Fawr.* • *An open, exposed landscape of medium scale and uniform character it includes areas of upland karst landscapes.* • *Historically an important relict landscape of upland common, with Bronze Age funerary deposits.* • *Forms part of the Registered Historic Landscape and World Heritage Site.*

SLA reference and relevant viewpoint	Description and landscape qualities
	• *The vegetation is dominated by dry, dwarf heathland and it lies within the Blorenge SSSI.*[36] The key management policies relate to the management of the WHS as well as the protection of upland common habitat designated as a SSSI. The protection of historic landscape features including boundary walls is also a priority.
C2/7 Afon Llwyd Valley	The SLA comprises an area of lowland valley mosaic landscape set between the adjacent upland flanks in a narrow valley. The area is characterised by the A4043 transport corridor and disused railways' track beds. The Landscape Qualities and Features are described as follows: • *"A lowland valley landscape running up to the edge of the upland commons, up to 300 metres AOD.* • *It has two distinct yet interrelated landscape types. From Blaenavon southwards to Cwmavon, the landscape is one of a network of enclosed fields, bounded by hedgerows, with hedgerow trees and interspersed with small broad leaved woods.* • *The settlement pattern is scattered with individual farms and small groups of houses.* • *It results in a balanced landscape form and character with a muted sense of colour, albeit autumn colour is an important feature of the SLA.* • *It retains many elements of the post medieval/ urban industrial landscape with a number of relict features including disused railways.* • *Its historical value is recognised by its inclusion within the Blaenavon World Heritage Site area.* • *Southwards from Cwmavon, the landscape is more enclosed albeit still reflecting the relict agricultural landscape pattern.* • *The last third of the SLA is formed by the extensive mixed woodland of Lasgarn Wood/ Companys Wood and Freehold Wood. These contain important remnants of ancient semi-natural woodland".*[36] The key management policies relate to the management of the WHS as well as the protection of historic landscape features, limiting boundary edge development and conservation of woodland habitats and features.
C2/8 Western Uplands Viewpoint 10	The SLA is centred on an area of uplands and upland agricultural landscapes to the west of Abersychan, Garndiffaith and Varteg. The Landscape Qualities 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."* [36] The Statement of Value for this SLA does not define key management policies.
Blaenau Gwent SLAs	

SLA reference and relevant viewpoint	Description and landscape qualities
ENV2.1 St. Illtyd Plateau and Ebbw Eastern Sides Viewpoint 6	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. There are nine landscape qualities and features identified for this SLA, as defined in the Statement of Value[34]. On the basis that this is not the host SLA and therefore could sustain no direct (physical) landscape effects, the only landscape quality and feature which is pertinent to the LVIA relates to *"Panoramic views especially west and south, to other plateau landscapes."*[34]
ENV2.2 Eastern Ridge and Mynydd James Viewpoint 10	The extensive Eastern Ridge and Mynydd James SLA lies north 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."* [34] There are five landscape qualities and features (as defined in the Statement of Value[34]) identified for the Open upland part 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 Proposed Development Site and, as a consequence, could sustain no direct landscape effects, only one of these 11 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."*
ENV2.3 Cwm Tyleri and Cwm Celyn	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. Cwm Tyleri also includes areas of reclaimed land and lakes. Of the five landscape qualities and features cited in the Statement of Value[34], 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."*[34]
ENV2.4 Mynydd Carn-y-Cefn and Cefn yr Arail Viewpoint 16	This SLA comprises the main north-south ridge in the centre of the county, between the Ebbw Fawr and Ebbw Fach valleys. The full length of the ridge is within Blaenau Gwent (unlike the other ridges) and it shows landscapes typical of all the ridges. There are four main landscape types within this area: • *"There is the central open upland ridge.*

SLA reference and relevant viewpoint	Description and landscape qualities
	• *On either side are steep Ebbw Fawr and Ebbw Fach valley sides, with their mix of open land, reclaimed land and tips, quarries and rough ground.* • *In the north the more rounded slopes overlooking the Heads of the Valleys are a mix of fields, un-reclaimed tips and recreational uses.* • *On the southernmost lower parts of the ridge there are fields with dense forestry on the adjacent steep valley sides."*[34] There are 17 landscape qualities and features identified for this SLA, as defined in the Statement of Value[34]. On the basis that this is not the host SLA and therefore could sustain no direct (physical) landscape effects, the only landscape quality and feature which is pertinent to the LVIA relates to *"Panoramic views across to other ridges."*[34] The key policies and management priorities include conserving the remoteness and tranquillity[34].
ENV2.6 Cefn Manmoel	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.* This SLA lies outside of the Proposed Development Site and, as a consequence, could sustain no direct landscape effects. Whilst there are no landscape qualities and features cited in the Statement of Value[34] which are of relevance the LVIA, key policies and management priorities include conserving the remoteness and tranquillity of the Manmoel Plateau.

Visual baseline

6.5.34 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[45]. The baseline establishes the receptors that are scoped into the assessment, and taken forward to the assessment stage, where the potential effects on views and visual amenity likely to be experienced by receptors (people) within the Study Area are assessed in the following groups:

- Views from settlements. It should be noted that views from scattered residential properties outside settlements and within 2km of the Proposed Development Site are considered as part of the Residential Visual Amenity Assessment (RVAA), which will be set out in **Appendix 6K** of the final ES. The assessment methodology used in the RVAA is set out in **Appendix 6A**;

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

- Views experienced whilst travelling through the landscape by road users, walkers, horse riders and cyclists for example; and
- Views from tourist and recreational destinations.

Visual receptors: Settlements

6.5.35 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.

6.5.36 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. Often, 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.

6.5.37 Settlements within 10km of the proposed turbines that are overlapped in full or part by the ZTV are as follows:

- Abercarn (Llanfach, Persondy, Celynen, High Meadow);
- Swffryd/ Hafodyrynys;
- Newbridge/ Trecelyn (Crumlin, Pantside, Treowen);
- Pantygasseg;
- Llanhilleth/ Brynithel/ Glandwr;
- Croespenmaen/ Oakdale (Kendon, Menmaen);
- Crosskeys/ Pontywaun;
- Trinant/ Pent-wyn;
- Blackwood/ Pontllanfraith (The Bryn, Gelligroes)
- Pontypool (Trevethin, Pontnewynydd, Penygarn, Wainfelin, Tranch, Cwm Ffrwd-oer, Pentre-Piod, Snatchwood/ Pen-twyn and Old Furnace);
- St. Illtyd;
- Abersychan;
- Argoed;
- Abertillery;
- Markham;
- Hengoed/ Cefn Hengoed;
- Ystrad Mynach (Maesycwmmer);
- Gelligaer/ Penybryn/ Penpedairheol;
- Bargoed/ Aberbargoed; and
- Little Mill.

6.5.38 A RVAA will be undertaken to assess the effects on residential visual amenity likely to arise as a result of the Proposed Development. The RVAA will be set out in **Appendix 6K**

and the assessment methodology used is set out in **Appendix 6A**. Individual or small groups of residential properties within 2km of the Proposed Development that are overlapped by the blade tip ZTV have been included in the RVAA, which is illustrated by **Figures 6.17** and **6.18a-ac**. A summary of the expected conclusions of the RVAA is provided in **Section 6.12**.

Visual receptors: recreational routes and destinations

6.5.39 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;
- Sustrans National Cycle Routes;
- Outdoor Recreational Facilities, Historic Parks and Gardens and Country Parks; and
- Public Rights of Way (PRoWs) and Open Access Land.

Sustrans National and Regional Cycle Routes

6.5.40 National Cycle Network (NCN) routes within 10km of the Proposed Development that are overlapped by the ZTV are shown in **Figures 6.14b** and listed as follows:

- NCN Route 466;
- NCN Route 465;
- NCN Route 492;
- NCN Route 47;
- NCN Route 467; and
- NCN Route 423.

Designated long distance footpaths (regional trails)

6.5.41 Regional long-distance footpaths within 10km of the Proposed Development that are overlapped by the ZTV are shown in **Figure 6.14b** and listed as follows:

- Taith Torfaen Anything Challenge;
- Ebbw Valley Walk;
- Cambrian Way;
- Cistercian Way;
- Torfaen Trail;
- Raven Walk;
- Celtic Way;
- Sirhowy Valley Ridgeway Walk;
- Monmouthshire Way; and
- Rhymney Valley Ridgeway Walk.

Historic Parks and Garden, Golf Courses and Country Parks

6.5.42 Outdoor Recreational facilities including historic parks and gardens, country parks and golf courses within 10km of the Proposed Development and that are overlapped by the ZTV are shown in **Figure 6.15a-b** and listed as follows:

- Historic Parks and Gardens:
  - Pontypool Park; and
  - Maes Manor Hotel.
- Golf Courses:
  - Blackwood Golf Club;
  - Bryn Meadows Golf Hotel;
  - Pontypool Golf Club; and
  - Bargoed Golf Club.
- Country Parks:
  - Pen-y-Fan Pond Country Park;
  - Sirhowy Valley Country Park;
  - Parc Coetir Bargod Country Park; and
  - Parc Penalta Country Park.

Open Access Land and PRoWs

6.5.43 Open Access Land within 10km of the Proposed Development that is overlapped by the ZTV is shown in **Figure 6.15a-b** whilst the dense network of local PRoW is shown on **Figure 6.15b** and listed as follows:

- Open Access land and PRoW within 5km of proposed turbines; and
- Open Access land between 5km-10km of the proposed turbines.

Visual receptors: transport routes

6.5.44 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.

6.5.45 Transport routes within 10km of the proposed turbines and that are overlapped by the ZTV are listed as follows:

- A472;
- B4471;
- A467;
- B4591;
- B4251;
- A4048;
- B4254;

- A4046;
- A4049;
- A4043; and
- B4246.

Future baseline

6.5.46 It is unlikely that the future baseline will alter markedly in the short term, although the recent planning applications and scoping requests for similar scale wind farms to the Proposed Development at Mynydd Llanhilleth, Mynydd Carn y Cefn, Twyn Hywel, Manmoel, Mynydd Maen, Mynydd y Glyn and Abertillery are likely to result in 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 planning application and scoping schemes, are listed in Error! Reference source not found. and their location shown in **Figure 6.7**.

5.1.1 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 elevated areas.

5.1.2 Many of the large blocks of forestry that are a conspicuous landscape feature across parts of the defined Study Area are coniferous. They are therefore likely to be felled as crops at some point with localised landscape consequences including changes to the nature of views available to some visual receptors within the detailed and defined Study Areas.

5.1.3 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 including higher temperatures and changes to rainfall patterns and intensity. Many of these changes will be subtle, at least initially, 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 as was demonstrated in many parts of the south Wales valleys in 2020 and 2021;
- 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 6.9** outlines how these embedded measures will influence the LVIA.

Table 6.9 Summary of the embedded environmental measures of relevance to LVIA

Receptor	Potential changes and effects	Embedded measures	Compliance mechanism
Construction			
Grassland	Some instances of habitat loss (unimproved and semi-improved grassland) would be temporary and reinstated during the construction stage in/ adjoining working areas, wind turbines, substation, tracks and temporary construction compounds. Cable routes would be buried below ground and reseeded/ managed as appropriate grassland habitat. Where permanent loss occurs, loss would be offset by mitigation planting elsewhere on site as compensation and enhancement would be provided. Existing access points, roads and tracks have been used where possible to minimise vegetation loss, and to provide betterment to existing roads. Mitigation planting would be included around access points along with additional tree planting in lower parts of the Proposed Development Site.	Revegetation and reinstatement.	CEMP secured via DNS condition.
Public Rights of Way (PRoW)	Access along some PRoW will be required to be temporarily managed during construction. Safety signs will also be required during construction and operation. In most circumstances PRoW users should be able to use footpaths and bridleways during construction. However, it is accepted that some may	Safety signage and temporary closures. Set out in full in **Table 4.3** of **Chapter 4: Description of the Proposed Development.**	CEMP with PRoW Management Plan secured via DNS condition.

Receptor	Potential changes and effects	Embedded measures	Compliance mechanism
	choose not to do so. The Applicant will therefore provide a temporary, permissive route away from the areas, subject to construction, for use by walkers and horse riders prior to the commencement of construction.		
Operation			
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, as agreed during scoping. The decommissioning activities would be short-lived in the context of the proposed 30 years operational period. No additional permanent elements would be introduced that could be visible beyond the Proposed Development Site boundary and no additional landscape elements would be lost (other than those associated with the operation of the Proposed Development). In a landscape and visual context, 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 20km radius LVIA Study Area, as defined in accordance with GN46[15] and the Zones of Theoretical Visibility (ZTVs). The cumulative assessment covers a 23km 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 four proposed turbines. Details of the method used to produce ZTVs is provided in **Appendix 6A**.

6.7.4 **Figures 6.2-6.6** show the ZTVs that have been calculated to show the area of theoretical visibility of the proposed turbines based on the four-turbine layout and a candidate wind turbine with a blade tip height of 143m and hub height of 84.5m.

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 24-months; and
- A 30-year operational phase.

6.7.6 It should be noted that at a maximum height of 143m, aviation warning lights do not form part of the Proposed Development. As a consequence, there is no requirement for an assessment of effects on night-time views as part of the LVIA.

Potential receptors

6.7.7 The principal landscape and visual receptors that have been identified as being potentially subject to effects are summarised in **Table 6.10.**

Table 6.10 Landscape and visual receptors subject to potential effects

Receptor	Reason for consideration
Landscape receptors	
LANDMAP VSAAs, HLAAs, GLAAs, LHAAs and CLSAAs filtered into the assessment.	The LANDMAP Aspect Areas 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: BBNP	The BBNP, occurring within the ZTV for the Proposed Development, is a landscape of national importance and high sensitivity.
Locally designated landscapes entirely or partly located within 10km of the boundary of the Proposed Development Site and within the ZTVs.	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 ZTVs.	Typically, high sensitivity receptors where there is the potential for significant effects upon visual amenity.
Residential visual receptors in private residences within 2km of the Proposed Development	Typically, high sensitivity receptors where there is the potential for substantial adverse effects upon residential visual amenity.

and within the blade tip ZTV.	
Recreational receptors using sections of Sustrans NCRs routed through the LVIA Study Area and within the ZTVs.	Typically, high sensitivity receptors where there is the potential for significant effects upon visual amenity.
Recreational receptors using promoted and long-distance routes within the LVIA Study Area and ZTVs.	Typically, high sensitivity receptors where there is the potential for significant effects upon visual amenity.
Recreational receptors using Open Access Areas within the ZTVs (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 within the ZTVs	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 which coincide with the ZTVs	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 6.11.**

6.7.9 The final scope of the assessment has been guided by the analysis of the Viewpoint Assessment provided in **Appendix 6J**. This analysis sets a distance threshold for likely significant effects and indicates that significant effects are unlikely to occur at distances beyond 9.4km, even for high sensitivity receptors. As a consequence, a conservative buffer of 10km from the turbine locations has been applied and receptors of local or regional importance have been considered within this 10km buffer.

Table 6.11 Landscape and visual receptors scoped in for further assessment

Receptors	Likely significant effects
Landscape receptors	
LANDMAP VSAAs, HLAAs, GLAAs, LHAAs and CLAAs **As derived from the filtering process set out in Appendix 6B and which lie**	**Construction phase**: • Direct localised effects on parts of the host Aspect Areas' landscape character and landscape elements as a consequence of the Proposed Development Site preparation and construction of associated infrastructure (tracks, control buildings / sub-stations, contractors' facilities, site access and electrical cabling) may be significant.

within 10km of the proposed turbines.	**Construction and operational phases**: • Direct effects on the host landscape character and potentially landscape elements as a consequence of turbine erection and operation are likely to be significant. • Indirect effects related to the visibility of the turbines and their effect on landscape character and perceptual characteristics have the potential to be significant.
BBNP	The closest proposed turbine would be theoretically visible from the BBNP at a separation distance of ~6.0km. Given that this is a landscape of high value, indirect effects upon its special qualities and landscape character have the potential to be significant.
Caerphilly VILLs and SLAs entirely or partially within 10km of the proposed turbines: **VILLs:** • NH2.3 Abercarn; and • NH2.2 Manmoel. **SLAs:** • NH1.2 Gelligaer Common; • NH1.3 Mynydd Eglwysilan; • NH1.4 North Caerphilly; and • NH1.6 Myynddislwyn.	**Construction phase:** • Direct effects upon the host VILL (NH2.3 Abercarn) as a consequence of the Proposed Development Site preparation and construction of associated infrastructure (tracks, control buildings/ sub-stations, contractors' facilities, site access and electrical cabling) may be significant. **Construction and operational phases**: • Direct effects on the host VILL (NH2.3 Abercarn) and the landscape qualities and features for which it has been designated as a consequence of turbine erection and operation are likely to be significant. • Indirect effects upon the remaining CCBC SLAs (and the landscape qualities and features for which they have been designated), as a consequence of turbine erection and operation may be significant.
Torfaen SLAs entirely or partially within 10km of the proposed turbines: • C2/4 South West Uplands; • C2/5 Blaenavon Heritage Landscape; • C2/6 Eastern Uplands; • C2/7 Afon Lwyd Valley; and • C2/8 Western Uplands.	**Construction and operational phases**: • Indirect effects upon five Torfaen CBC SLAs (and the landscape qualities and features for which they have been designated), as a consequence of turbine erection and operation may be significant.
Blaenau Gwent SLAs entirely or partially within 10km of the proposed turbines • ENV2.1 St Illtyd Plateau & Ebbw Eastern Sides; • ENV2.2 Eastern Ridge & Mynydd James;	**Construction and operational phases**: • Indirect effects upon five Blaenau Gwent CBC SLA (and the landscape qualities and features for which it has been designated), as a consequence of turbine erection and operation may be significant.

• ENV2.3 Cwm Tyleri and Cwm Celyn; • ENV2.4 Mynydd Carn-y-Cefn and Cefn yr Arail; and • ENV2.6 Cefn Manmoel.	
Visual receptors	
Residential receptors in the closest communities and recreational receptors (within ~2km of proposed turbines and the hub height ZTV).	**Construction phase of the Wind Farm development:** • 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, , 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. **Operational phase of Wind Farm development and Grid Connection:** • Effects on views and visual amenity resulting from visibility and movement of the proposed wind turbines.
Residential receptors in communities substantially within the blade tip ZTV and within 10km of the Proposed Development	**Construction and operational phases of the Wind Farm development**: • 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.
Recreational receptors using regionally promoted footpath routes within the blade tip ZTV and within 10km of the Proposed Development.	**Construction and operational phases**: • 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.
Recreational receptors using National Sustrans Cycle Routes within the blade tip ZTV and within 10km of the Proposed Development	**Construction and operational phases**: • 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.
Recreational receptors at visitor attractions in LVIA Study Area such as Country Parks and Golf Clubs within the blade tip ZTV and within 10km of the Proposed Development	**Construction and operational phases**: • 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.
Recreational receptors in extensive upland Access Areas and at popular summits within LVIA Study Area (where not included in other categories):	**Construction and operational phases**: • 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.

• Open Access land within 5km of proposed turbines; and • Open Access land between 5km-10km of the Proposed Development Site	
Vehicular receptors travelling along 'A' and 'B' roads and any promoted tourist routes within the blade tip ZTV and within 10km of the Proposed Development.	**Construction and operational phases**: • 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.

6.7.10 The receptors/ effects detailed in **Table 6.12** have been scoped out from further assessment because the potential effects are considered unlikely to be significant.

Table 6.12 Landscape and visual receptors scoped out of the LVIA

Receptors/potential effects	Justification
Receptors:	
All LANDMAP Aspect Areas that do not fulfil the criteria set out in GN46[15] and are beyond 10km from the proposed turbines	The filtering process set out within GN46[15] intends to focus the detailed assessment of potentially sensitive landscape and visual receptors on the aspect areas most likely to be affected. The viewpoint analysis in **Appendix 6J** indicates that significant effects are not anticipated beyond 9.4km.
Local landscape designations that are located beyond 10km	The viewpoint analysis in **Appendix 6J** indicates that significant effects are not anticipated beyond 9.4km.
Local landscape designations within 10km that are substantially or completely outside the ZTVs as shown on Figure 6.13b and as set out in the Scoping Report:	These include: • Caerphilly VILL NH2.4 Rudry. • Caerphilly SLA NH1.5 South Caerphilly. • Torfaen SLAs: ▸ C2/4 Llandegfedd Reservoir; ▸ C2/5 South Eastern Lowlands; and ▸ C2/6 Southern Lowlands. • Newport SLAs: ▸ SP8(i) North of Bettws; and ▸ SP8(ii) West of Rhiwderin.
Users of the Wales Coast Path	Review of **Figure 6.2** and **6.6** shows that ZTV extents as far as some sections of the coast and hence the Wales Coast Path between Cardiff and east of Newport. The sections of the Coast Path within the ZTV will have a minimum separation distance in excess of at least 13km from the Proposed Development with the closest section of the Wales Coast Path being located within Newport. Beyond the settlement boundary the

	attention of receptors is more likely to be focused on views along the coast and out to sea when not routed through extensive urban areas in Cardiff and Newport. Viewpoint 22 (**Figure 6.40**) is located on the Wales Coast Path south of Newport. The effects of the Proposed Development in this location are report in **Appendix 6J (Table 6.J23)** and conclude that no significant effects will result on recreational users. In these circumstances it is highly unlikely that recreational receptors using any sections of the Wales Coast Path within the LVIA Study Area would be able to discern turbines at the Proposed Development. If views were to be available and weather conditions favourable, visibility of the Proposed Development would be limited to the uppermost part of the rotator sweep which would form an almost imperceptible feature of the visible horizon. As a consequence, an assessment of the visual effects on users of the Wales Coast Path has been scoped out of the LVIA.
Visual Receptors outwith the ZTV	All receptors within the LVIA Study Area that are outwith the blade tip ZTV would have no view of the Proposed Development and are scoped out, as agreed with consultees and recorded in **Table 6.4**.
Temporal based:	
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

6.7.11 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).

6.7.12 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 Trecelyn 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 Trecelyn Wind Farm into the baseline scenario, may sustain significant effects as a result of the additional contribution of Trecelyn Wind Farm to a cumulative scenario.

6.7.13 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.

6.7.14 The Scoping Report[46] confirms the parameters for the cumulative developments for inclusion in the CLVIA in paragraph 5.3.5. It states that micro-generation turbines will be included in the cumulative assessment within 5km of the Proposed Development where they comprise three turbines or more, single turbines will be included within 10km of the Proposed Development Site as well as scoping request schemes where they are considered to have a high potential to alter the landscape and visual baseline into which the proposed turbines would be introduced.

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**. 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[14] 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, in **Table 6.13**, that sets out the level of effects and whether this is significant or not significant.

[46] Wood Group UK Ltd (on behalf of Pennant Walters Ltd). (2020). Trecelyn Wind Farm, Environmental Impact Assessment Scoping Report.

Table 6.13 Evaluation of Landscape and Visual Effects

		Landscape and Visual Sensitivity			
		High	**Medium**	**Low**	**Very Low**
Magnitude of Change	**Very High**	**Major (Significant)**	**Major (Significant)**	**Major/Moderate (Significant)**	Moderate (Potentially Significant)
	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			

6.9 Assessment of effects: LANDMAP Aspect Areas

Geological Landscapes Aspects 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 6D: LANDMAP Geological Landscapes Aspect Areas: Assessment of effects**. A summary of the assessment of effects which may arise as a consequence of the Proposed Development is presented in Error! Reference source not found.. There would be no significant landscape effects.

Table 6.14 Summary of effects: GLAAs (operation)

Aspect Area Reference and name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
CYNONGL001 Upper Ebbw valley	High	Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None
CYNONGL002 Nant Gwyddon	Medium	Medium	Medium	Very Low to Zero	Minor and Not Significant to None

Landscape Habitats Aspects Areas

6.9.2 The assessment of effects upon the two LHAA receptors within the Study Area which have been scoped into the assessment, is set out in the detailed assessment tables in **Appendix 6E: LANDMAP Landscape Habitats Aspect Areas: Assessment of effects**. A summary of the assessment of effects which may arise as a consequence of the Proposed Development, is presented in **Table 6.15**. There would be no significant landscape effects.

Table 6.15 Summary of effects: LHAAs (operation)

Aspect Area Reference and name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
CYNON149 Unnamed	Low	Low	Low	Medium	Moderate/ Minor and Not Significant to None
CYNONLH150 Unnamed	High	Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None

Visual and Sensory Aspect Areas

6.9.3 The assessment of effects upon the 18 VSAA receptors within the Study Area which have been scoped into the assessment is set out in the detailed assessment tables in **Appendix 6F: LANDMAP Visual and Sensory Aspect Areas: Assessment of effects**. A summary of the assessment of effects which may arise as a consequence of the Proposed Development, is presented in **Table 6.16** with significant landscape effects indicated in **bold**.

Table 6.16 Summary of effects: VSAAs (operation)

Aspect Area Reference and name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
BLNGWVS119 Mynydd Pen-y-fan	High	Medium	High	Medium to Zero	**Major/ Moderate and Significant** to None
BLNGWVS226 St. Illtyd	High	Medium	High	High to Zero	**Major and Significant** to None
BLNGWVS404 Ebbw/ Ebbw Fach valley	High	Medium	High	Low to Zero	Moderate and Not Significant to None
BLNGWVS542 Garden Festival	Medium	Low	Low	Very Low to Zero	Moderate/ Minor and Not Significant to None

Aspect Area Reference and name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
BLNGWVS688 Mynydd Bedwellte	High	Medium	High	High to Medium to Zero	**Major to Major/ Moderate and Significant** to None
BLNGWVS713 Sirhowy, Ebbw Fawr and Ebbw Fach valley	High	Medium	High	Low/ Very Low to Zero	Moderate to Moderate/ Minor and Not Significant to None
BLNGWVS808 Cwm Tyleri	High	Medium	High	Low to Zero	Moderate/ Minor and Not Significant to None
CYNONVS129 Mynydd Y Grug	Medium	Medium	Medium	Low to Zero	Moderate/ Minor and Not Significant to None
CYNONVS214 Mynydd Llwyd and Mynydd Maen	Medium	Medium	Medium	High to Zero	**Major/ Moderate and Significant** to None
CYNONVS372 Mynydd Maen	Medium	Medium to Low	Medium to Low	High to Zero	**Major/ Moderate and Significant** to None
CYNONVS404 Gelligaer Common	High	Medium to Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None
CYNONVS854 Mynydd Y Lan	High	Medium to Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None
MNMTHVS010 Mynydd Garnclochdy	High	Medium to Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None
TRFNVS019 Unnamed	High	Medium to Low	Medium	Medium to Zero	Moderate and Not Significant to None
TRFNVS022 Unnamed	Medium	Medium	Medium	Medium to Zero	Moderate and Not Significant to None
TRFNVS024 Unnamed	High	Medium to Low	Medium	Medium to Low to Zero	**Moderate and Significant** to Moderate/ Minor and Not Significant to None
TRFNVS027 Unnamed	High	Medium to Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None

Aspect Area Reference and name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
TRFNVS033 Unnamed	High	Medium to Low	Medium	Low/ Very Low to Zero	Moderate to Moderate/ Minor and Not Significant to None

Historic Landscape Aspect Areas

6.9.4 The assessment of effects upon the 28 HLAA receptors within the Study Area which have been scoped into the assessment, is set out in the detailed assessment tables in **Appendix 6G: LANDMAP Historic Landscape Aspect Areas: Assessment of effects**. A summary of the assessment of effects which may arise as a consequence of the Proposed Development is presented in **Table 6.17** with significant landscape effects indicated in **bold**.

Table 6.17 Summary of effects: HLAAs (operation)

Aspect Area Reference and name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
BLNGWHL022 HAA 22 Mynydd Carn-y-cefn	High	Medium to Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None.
BLNGWHL025 HAA 25 Mynydd Coety	High	Low	Medium	Medium to Low to Zero	**Moderate and Significant** to None.
BLNGWHL034 HAA 34 Cwmtillery	High	Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None.
BLNGWHL037 HAA 37 Maes Mawr	High	Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None.
BLNGWHL041 HAA 41 Hafod y dafal	High	Low	Medium	Medium to Zero	Moderate and Not Significant to None
BLNGWHL044 HAA 44 St Illtyd Fieldscape	High	Medium	High	Medium to Zero	**Major/ Moderate and Significant** to None
BLNGWHL045 HAA 45 Llanhilleth	High	Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None
CYNONHL004 Pen-y-fan Industrial Estate	High	Low	Medium	Low/ Very Low to Zero	Moderate/ Minor to Minor and Not Significant to None

Aspect Area Reference and name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
CYNONHL290 Llanfabon and Llanbradach	High	Medium to Low	Medium	Low/ very Low to Zero	Moderate/ Minor to Minor and Not Significant to None
CYNONHL426 Maes Manor Hotel	High	Medium to Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None
CYNONHL465 Ebbwy Settlement Corridor	High	Medium to Low	Medium	Low/ Very Low to Zero	Moderate/ Minor to Minor and Not Significant to None
CYNONHL556 Mynydd Bach and Mynydd-y-Grug	High	Medium to Low	Medium	Low/ Very Low to Zero	Moderate/ Minor to Minor and Not Significant to None
CYNONHL558 Cwm Dows and Cwm Philkins	High	Low	Medium	Medium to Zero	**Moderate and Significant** to None
CYNONHL602 Nant Bargod Rhymni	High	Medium to Low	Medium	Low/ Very Low to Zero	Moderate/ Minor to Minor and Not Significant to None
CYNONHL634 Gelligaer and Llancaiach	High	Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None
CYNONHL660 Blackwood and the Sirhowy Valley	High	Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None
CYNONHL724 Nant Gawni and Hafod-fach	Medium	Low	Medium to Low	High to Zero	**Major/ Moderate and Significant** to None
CYNONHL878 Mynyddau Eglwysilian a Meio	High	Low	Medium	Low/ Very Low to Zero	Moderate/ Minor to Minor and Not Significant to None
MRTHRHL015 HL015 Gelligaer Common (west)	High	Medium	High	Low to Zero	Moderate and Not Significant to None
NWPRTHL001 Michaelston le Fedw Rolling Hills	High	Medium	High	Very Low to Zero	Moderate/ Minor and Not Significant to None
TRFNHL011	High	Medium	High	Low to Zero	Moderate and Not Significant to None

Aspect Area Reference and name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
HL011 Pontypool Park					
TRFNHL012 HL012 Pontypool	High	Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None
TRFNHL013 HL013 Cilgoegan and Lasgarn	High	Medium to Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None
TRFNHL014 HL014 Mynydd Garnclochdy	High	Medium to Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None
TRFNHL015 HL015Cwm Afon	High	Medium	High	Very Low to Zero	Moderate/ Minor and Not Significant to None
TRFNHL017 HL017 Waun-wen and Mynydd Llanhilleth: V	High	Low	Medium	Medium to Low to Zero	**Moderate and Significant** to Moderate/ Minor and Not Significant to None
TRFNHL018 HL018 Glyn Trosnant and Hafod-yr-Ynys	High	Low	Medium	Medium to Zero	**Moderate and Significant** to None
TRFNHL019 HL019 Waun-wen and Mynydd Llanhilleth	High	Medium to Low	Medium	Low to Zero	Moderate/ Minor and Not Significant to None

Cultural Landscape Services Aspect Areas

6.9.5 **Appendix 6H: LANDMAP Cultural Landscape Services Aspect Areas: Assessment of effects** contains the assessment of effects upon the two CLSAA receptors within the Study Area, which has been scoped into the assessment. A summary of the assessment of effects which may arise as a consequence of the Proposed Development, is presented in **Table 6.18**. No CLSAAs are predicted to experience significant landscape effects.

Table 6.18 Summary of effects: CLSAAs (operation)f

Aspect Area Reference and name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
CYNONCLS026 Mynydd Llwyd and Mynydd Maen	Medium	Low	Low	Medium	Moderate and Not Significant

Aspect Area Reference and name	Landscape value	Landscape susceptibility	Overall landscape sensitivity	Magnitude of change	Level of effect
CYNONCLS050 Mynydd Maen	Medium	Medium to Low	Low	Medium	Moderate and Not Significant

6.10 Assessment of effects: BBNP

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 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[14] 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*." [14]

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**. 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 from a limited part of the BBNP.

Baseline

6.10.6 The BBNP boundary is illustrated in **Figures 6.11-6.12** which is overlapped by the hub height and blade tip ZTV, indicating the maximum extent of theoretical visibility across the National Park. The Proposed Development may be theoretically visible over a range of distances from within the BBNP including from Little Mountain, 6.9km northeast; from Mynydd Garnclochy east of Cwmavon (9.4km, northeast); from the summit and hill slopes of the Blorenge, 14.0km north; and across the southern hill slopes of Mynydd Llangatwg north of Beaufort (20.0km, northwest).

6.10.7 The SQs of the BBNP, as set out in *Y Bannau The Future, A Management Plan for Bannau Brycheiniog National Park 2023-2028*[30], are described in the baseline as reported 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 National 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 grouped around landscape, community, experiences and wildlife.*
- *Sounds, sights, smells and tastes: A feeling of vitality and wellbeing that comes from enjoying the National 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."*[30]

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.*
- *An 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.*
- *Mosaic of Diversity: The geology and climate vary greatly across the Park creating an elaborate patchwork landscape rich in biodiversity. The Park hosts heathlands, grasslands and woodlands, with uplands and lowlands, natural lakes and riparian habitats. The Park contains limestone pavement and blanket bogs of international and national importance. Several endangered species survive in the Park, including some for which the Park is their furthest extent of their natural range.*
- *Living Landscape: An abundance of wildlife thrives in semi-natural habitats that have been lived in and shaped by human settlement for millennia. The landscape is interlaced with ancient hedgerows bustling with life, enclosing wildlife-rich hay meadows, and primeval woodlands that cloak some steep-sided valleys. Veteran trees adorn the landscape, carrying the scars of centuries of changing dependency on their resources. Heather-dominated uplands maintained through grazing by horses, sheep and cattle are a testament to the intimate relationship between biodiversity and farming*" [30]

Assessment of effects on Special Qualities

6.10.9 A total of four SQs (numbered 1-4) are considered relevant to this assessment and have been assessed here with a summary of the assessment provided in **Table 6.19.**

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*" and the *"extensive views in all directions".* Its *"sense of time depth and timelessness*" is also a quality which may be altered as a consequence of the four turbines at the Proposed Development Site.

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 parts of the National Park.

6.10.12 Where visible, the Proposed Development would appear as up to four turbines or turbine blades from within the limited areas of intervisibility indicated across the southern and western facing hill slopes on the boundary of the BBNP in the ZTV in **Figures 6.11-6.12**. There would be no intervisibility from a large part of the area of the BBNP which coincides with the Study Area. As recorded in the Viewpoint Assessment in **Appendix 6J**, some Major/ Moderate levels of visual effect are likely to be experienced by recreational receptors crossing the open access land at Mynydd Garnclochdy and at Little Mountain on the ridgeline of topography south of the Blorenge defining the western boundary of the BBNP. The magnitude of visual change in elevated positions on the western boundary would not increase beyond Medium, with more distant parts of the BBNP experiencing a

reduced magnitude of visual change (Low) as a consequence of the separation distance, as recorded in **Appendix 6J** at the summit of the Blorenge and Mynydd Llangynidr. The limited visible scale and extents of the Proposed Development would occupy a narrow proportion of the wide panoramic views available from the upland landscapes of the BBNP.

6.10.13 As shown in **Figure 6.7** and evidenced in the baseline photography from Viewpoint 24 (**Figure 6.42**), there are a number of existing turbines located in closer proximity to the southern boundary of the BBNP. The Proposed Development would therefore become an incremental or sometimes new, distant man-made vertical element within the "*extensive views in all directions",* often in conjunction with existing human influences and built form adjoining the boundary of the BBNP. The *"variety of harmoniously connected landscapes"* would continue to be observed and the Proposed Development would not significantly detract from the BBNP's "*sweeping grandeur".*

6.10.14 The magnitude of change upon this SQ is assessed as Low from areas of the BBNP which coincide with the ZTV giving rise to a level of landscape effect which would be no greater than Moderate 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.

SQ2: Contrasting patterns, colours, and textures

6.10.15 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.

6.10.16 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 include 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.

6.10.17 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 the Proposed Development would appear as a new, and predominantly distant, feature in outward views towards the Proposed Development Site, it would affect a very small part of the overall visual experience gained from these upland landscapes. Furthermore, some of the much wider landscape panoramas include existing wind turbines present beyond the National Park boundary, as recorded during the field survey and evidenced in the baseline photography from Viewpoint 24 (**Figure 6.42**). The Proposed Development would therefore introduce an incremental man-made vertical element beyond the existing land cover within the National Park boundary.

6.10.18 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 maintain visual permeability. The level of landscape effect on this SQ would be Moderate/ Minor and Not Significant to None. The nature of this effect would be long term (reversible), indirect, and adverse to neutral.

SQ3: Sounds, sights, smells and tastes

6.10.19 The relevant component of this SQ relates to the visual qualities concerning "*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.

6.10.20 The sensitivity of this SQ is assessed as High. The four turbines comprising the Proposed Development would become a new visual component in outward views from southern and western margins of the National Park. Existing views from these areas on the BBNP's boundary feature operational wind turbines, existing vertical infrastructure and other intervening built form that 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 westerly or south-westerly views from the closest western boundary of the BBNP towards the Proposed Development Site, as a consequence of proximity to the settlement of Pontypool and Abersychan. From more distant southerly views the almost continuous conurbations of Merthyr Tydfil, Tredegar and Ebbw Vale which extend along the A465 corridor influence the perception of rural setting, as does visibility of operational wind turbines as Rassau.

6.10.21 The magnitude of change upon this SQ is assessed as Low from areas of the BBNP which coincide with the ZTV giving rise to a level of landscape effect which would be Moderate and Not Significant to None within areas outwith the ZTV. The nature of this effect would be long term (reversible), indirect, and adverse.

SQ4: Peace, tranquillity and dark skies

6.10.22 The relevant component of this SQ relates to the visual and perceptual qualities concerning "*tranquillity*". This SQ also references "*dark night-time skies*", however, the Proposed Development does not include a requirement for turbine aviation lighting.

6.10.23 The sensitivity of this SQ is assessed as High. With regard to tranquillity, the Proposed Development would appear as a simple wind farm of four turbines, rotating at a slow and regular speed, visually affecting a narrow portion of the overall panoramas available from the limited southern and western boundaries of the BBNP that coincide with the ZTV presented in **Figures 6.11-6.12**. The Proposed Development would not represent a visually disorganised scheme, 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 tranquillity include the presence and/ or perceptions of the natural landscape, birdsong and peacefulness, all of which would continue to be present within the landscape.

6.10.24 The magnitude of change upon this SQ is assessed as Very Low from areas of the BBNP which coincide with the ZTV giving rise to a level of landscape effect which would be 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.

Summary

6.10.25 A summary of the SQ assessment for the BBNP is set out in **Table 6.19.**

Table 6.19 Special Qualities Assessment for the BBNP

Special Quality	Sensitivity	Magnitude of change	Level of effect
Special Landscapes			
Sweeping grandeur and outstanding natural beauty	High	Low to Zero	Moderate and Not Significant to None
Contrasting patterns, colours, and textures	High	Very Low to Zero	Moderate/ Minor and Not Significant to None
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 to Zero	Moderate and Not Significant to None
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	Very Low to Zero	Moderate/ Minor and Not Significant to None
Special Nature			
Mosaic of Diversity	Not assessed – physical characteristic that could not be affected by the Proposed Development which is well beyond the BBNP boundary.		
Living Landscape	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

6.10.26 The assessment of the effects on the two LCAs within the BBNP which coincide with the hub and blade tip ZTVs as shown in **Figure 6.11-12** is presented in **Appendix 6I**. The conclusions of the assessment are set out in **Table 6.20** which indicates that there would be no significant landscape effects upon the distinctive characteristics and character of the LCAs within the BBNP.

Table 6.20 Summary of effects: BBNP LCAs (operation)

LCA	Summary of effects
LCA 9: Mynyddoedd Llangatwg and Llangynidr	Rationale: With reference to **Figure 6.12,** the Proposed Development would be theoretically visible from across a small part of the LCA concentrated across the southern hill slopes of Mynydd Llangatwg and Mynydd Llangynior, at a minimum distances of 16.0km and 18.5km respectively, as well as the eastern slopes of Cefn yr Ystrad at a minimum distance of 19.5km. The Proposed Development would affect a narrow portion of the overall horizontal field of view and visual experience gained from this landscape. The proposed turbines would be experienced as part of much wider panoramas where existing vertical structures beyond the National Park boundary are present and hence would not introduce an incongruous feature to the view. The Proposed Development would not alter the key views north across the Usk Valley nor those to the Central Beacons, as cited in the extant Profile, which are orientated in the opposite direction to the Proposed Development Site which lies to the south-southeast. 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. Landscape sensitivity: High (High value and Medium susceptibility) Magnitude of change: Very Low to Zero Level of effect: Moderate/ Minor and Not Significant to None
LCA 15: Blorenge Hills and Slopes	Rationale: Reference to **Figure 6.12** indicates that the Proposed Development would be visible from a localised part of this LCA, concentrated across the summit and southern hill slopes of The Blorenge, at a distance of 14.0km, and along the southern craggy ridge of terrain forming western boundary of LCA 15 and the BBNP at a minimum distance of 6.9km. The Proposed Development would introduce a new man-made vertical structure to a small part of south-westerly views from the elevated ridgeline of terrain that forms the western boundary of the LCA and the BBNP. This new introduction would be experienced as part of much wider panoramas, frequently away from the principal orientation of views and in combination with either existing vertical structures or built influences. The Proposed Development would not be visible from the central or eastern parts of the LCA and would not alter the key views east across the Usk Valley, as cited in the extant Profile, with the Proposed Development located in the opposite direction to the southwest. It is not considered that the Proposed Development would significantly alter the distinctive characteristics or the key perceptual and visual characteristics of LCA 15, which would continue as a peninsula of land with an exceptional timeless and peaceful quality and a sense of being rarely visited. Scattered farms linked by deep lanes lined with exposed tree roots and flower-rich banks, would remain unaffected by the Proposed Development, as would the back-clothing influence and sense of orientation provided by the Blorenge moorland. Landscape sensitivity: High (High value and Medium susceptibility) Magnitude of change: Low to Very Low to Zero Level of effect: Moderate to Moderate/ Minor and Not Significant to None

6.11 Assessment of effects: locally designated landscapes

Direct landscape effects on SLAs

NH2.3 Abercarn VILL

6.11.1 The location of the Abercarn VILL is shown on **Figure 6.13b**. This local landscape designation is not of the highest or national level. The statement of value[32] for the VILL also references that the "*Value is below potential largely due to intrusion of pylons/ vertical elements*". Consequently, the value of the Abercarn VILL is assessed as Medium.

6.11.2 In terms of physical characteristics, whilst the open hill summits and ridges, comprising homogenous heathland and grassland land cover, are considered to be of generally lower susceptibility to wind energy development, the more enclosed and smaller scale mosaic of pastoral land bound by hedgerows and trees, scattered farmsteads and agricultural buildings, coniferous forestry and mixed woodland in evidence throughout the valley are characteristic of a higher susceptibility.

6.11.3 Visually, the sense of enclosure generated by forestry is again evident: "*Some views are restricted by forestry*"[32], however intervisibility across the broader landscape is achieved from more elevated parts of the VILL: *"…open ridgelines afford views across adjacent wooded valleys…This heath land and its views to the uplands should be conserved*" [32]. Although these characteristics are indicators of a higher susceptibility, this judgement is counter-balanced to a degree by the existing presence of a large-scale overhead electricity transmission line crossing the centre of the VILL: "*Visual detractors (vertical elements including pylons) on the open ridgeline have reduced the Visual and Sensory evaluations for both*" [32].

6.11.4 The susceptibility of the VILL is judged to be Medium. As a consequence, the overall sensitivity of this landscape to a wind farm development is assessed as Medium.

6.11.5 As this VILL would host all four proposed turbines; as well as the proposed access track, substation and other ancillary infrastructure; it would experience direct effects as a result of the Proposed Development. The operational turbines are expected to be dominant landscape elements across hill summits and ridgelines within the VILL. The well-wooded and enclosed valleys would experience less visual intrusion with a large proportion of them lying outside the ZTV as well as benefitting from the screening influence of widespread forestry. The open hill slopes north of Risca are also outside the ZTV coverage for the Proposed Development.

6.11.6 Although the Proposed Development would be sited within the agricultural land northeast of Abercarn, the direct loss of arable/ pastoral land would be limited to the footprint of the proposed turbines and associated ancillary development. Where permanent habitat loss would occur, this would be offset by mitigation planting elsewhere within the Proposed Development Site. Where possible, existing access points, roads and tracks have been utilised to minimise vegetation loss while providing suitable access. The loss of any habitat, such as field boundary hedgerows, would be temporary with any impacted habitats reinstated following completion of the construction phase. Mitigation planting is also proposed within the lower parts of the Proposed Development Site and around access points, aligning with one of the key policy and management issues for this VILL which states: "*maximise opportunities for planting broadleaf species to soften edges*"[32] (**Chapter 4: Project Description, section 4.9**).

6.11.7 Despite this, the Proposed Development would introduce a new vertical human influence to the broad panoramas experienced from more elevated parts of the VILL (Viewpoint 3, **Figure 6.21** and Viewpoint 5, **Figure 6.23**). Although the introduction of the Proposed

Development would be experienced in the context of existing large-scale vertical man-made features, most notably from Viewpoint 3 (**Figure 6.21**), the principally un-industrialised nature of the skyline profile of the VILL viewed from the adjoining settlements of Abercarn (Viewpoint 1, **Figure 6.19**) and Pantside (Viewpoint 2, **Figure 6.20**) would be altered by the Proposed Development.

6.11.8 The alteration to a proportion of some of the landscape qualities and features as a consequence of the Proposed Development would give rise to a Medium magnitude of change across a large proportion of the VILL, reducing to Zero across areas outside ZTV coverage. The level of effect would therefore range from **Moderate and Significant** to None. The nature of these effects would be long-term (reversible), direct, and adverse.

Indirect landscape effects on SLAs and VILLs

6.11.9 For the remaining local landscape designations entirely or partly located within 10km of the proposed turbines that 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 6.21.**

6.11.10 Significant landscape effects are predicted for the following SLAs:

- NH2.3 Abercarn VILL;
- ENV2.1 St Illtyd Plateau and Ebbw Eastern Sides SLA;
- NH1.6 Mynyddislwyn SLA; and
- ENV2.4 Mynydd Carn-y-Cefn & Cefn yr Arail SLA.

Table 6.21 Indirect effects on local landscape designations

Local Landscape Designation (see Figure 6.14)	Assessment
Caerphilly VILLs	
NH2.3 Abercarn Viewpoints 3 and 5	As set out above, this VLAA is predicted to sustain Significant effects as a result of the Proposed Scheme.
NH2.2 Manmoel Viewpoint 12	<u>Sensitivity</u> 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 landscape qualities and features of the VILL to the type of development proposed is considered to be Medium to Low. Some of the qualities; principally 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. <u>Assessment of effects: Proposed Development</u> There would be no direct landscape effects arising from the Proposed Development. Reference to **Figure 6.13b** indicates a large part of the VLAA coincides with the ZTV between Twyn-gwyn, in the south, and Coed-y-Llanerch, in the north at distances of ~7.5km to ~9.0km. An area of ZTV

Local Landscape Designation (see Figure 6.14)	Assessment
	coverage is also illustrated at the summit of Cruglwyn in proximity to the operational wind turbines at a distance of ~10.5km. At these distances, the scale of the proposed turbines could give rise to a medium to low to low magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. **Figure 6.30** reflects the type of visibility from the core of the VILL, near the village of Manmoel. From this location the proposed turbines would appear as a distant new feature affecting a small part of the overall visual experience (3°) gained from this upland landscape. The majority of the landscape qualities and features for which this area has been designated would not be altered by the Proposed Development. However, the turbines would introduce a degree of intrusion in some outward views, particularly from more elevated and open locations where limited intervening screening by vegetation is present in comparison to **Figure 6.30.** The quality of outward views is also noted as increasing at higher elevations within the VILL. The operational turbine at Pen-y-Fan Ganol Farm forms a prominent feature in views towards the Proposed Development (**Figure 6.30b**). The operational turbines at Oakdale Business Park, Pen-y-Fan Industrial Estate, Bryn Ysgawen Farm and Tyle Crwth are also features of south-easterly views from the VILL to the Proposed Development Site. 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. These 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 scale of the proposed turbines is not considered sufficient to dominate the small-scale field pattern which is prevalent across this VILL. Consequently, the proposed turbines would not appear incongruous, and their presence would not significantly affect the stated landscape qualities and features for which this landscape has been designated. The magnitude of change affecting the landscape qualities and features of the VILL would range from *Very Low to Zero*. The effect of the Proposed Development would consequently range from Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
Caerphilly SLAs	
NH1.2 Gelligaer Common Viewpoints 14 and 15	<u>Sensitivity</u> 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 landscape qualities and features of the SLA to the type of development proposed is considered to be Medium to Low. Some of these qualities, notably those relating to an upland and exposed landscape where the sound of the wind is noticeable, are 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.

Local Landscape Designation (see Figure 6.14)	Assessment
	Assessment of effects: Proposed Development There would be no direct landscape effects arising from the Proposed Development. Reference to **Figure 6.13b** indicates a large part of the SLA coincides with the ZTV at a minimum distance of ~8.5km. At these distances, the scale of the proposed turbines could give rise to a medium to low to low magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. Viewpoint 14 (**Figure 6.32**) reflects the maximum extent of visibility from the closest part of the SLA to the Proposed Development Site, on the northern edge of the settlement of Gelligaer. From this location the proposed turbines would appear as a distant new feature affecting a small part of the overall visual experience (13°) gained from this upland landscape, with substantial screening of the Proposed Development by intervening mature vegetation. Viewpoint 15 (**Figure 6.33**) reflects the type of visibility from the core of the SLA, on Gelligaer Common. From this location the proposed turbines would appear as new vertical features of easterly views, affecting a small part of the overall visual experience (13°) as part of much wider panoramas where operational wind turbine development is already present at Oakdale Business Park, Pen-y-Fan Industrial Estate, Pen-y-Fan Ganol Farm and Bryn Ysgawen Farm. Further operational wind turbines are present on the eastern boundary of the SLA, at Cefn Bach Farm and Groesfaen Farm. Although the Proposed Development would lead to an intensification of the urbanising influence of vertical infrastructure within easterly views from the SLA, this would not adversely affect the landscape qualities and features for which this area has been designated or any of the key policy, management and development control objects outlined in planning policy for the SLA[31]. The magnitude of change affecting the 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 and Not Significant to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
NH1.3 Mynydd Eglwysilan Viewpoint 19	Sensitivity As a local landscape designation (not of the highest or national level), the value of the Mynydd Eglwysilan SLA is assessed as High to Medium. The susceptibility of the landscape qualities and features of the SLA to the type of development proposed is considered to be Medium to Low. Some of these qualities; notably those relating to an upland landscape, lower levels of remoteness and presence of existing vertical infrastructure such as pylons; are 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 Eglwysilan 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 6.13b** indicates a large part of the SLA coincides with the ZTV at a minimum distance of ~9.0km. At these distances, the scale of the proposed turbines could give rise to a medium to low to low magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA.

Local Landscape Designation (see Figure 6.14)	Assessment
	Viewpoint 19 (**Figure 6.37**) reflects the type of visibility from the summit of Mynydd Meio. From this location the proposed turbines would appear as distant vertical features of north-easterly views, affecting a small part of the overall visual experience (5°) as part of much wider panoramas where operational wind turbine development is already present at Bryn Ysgawen Farm, Tyle Crwth, Pen-y-Fan Ganol Farm, Oakdale Business Park and Pen-y-Fan Industrial Estate as well as various other operational schemes to the north and east. The description of the SLA outlined in planning policy[8, 31] references that "*Some visual clutter of pylons slightly detracts from this otherwise wild/ exposed typical upland area with a strong sense of place*". The Proposed Development would result in an incremental increase in the presence of man-made vertical features within north-easterly views from this SLA in conjunction with the various existing overhead transmission lines and operational wind turbines. The Proposed Development would consequently result in a marginal increase in the visual clutter referenced, however, this increase is not considered to be significant due to the separation distance to the proposed turbines and their visual permeability. The remaining landscape qualities and features of the SLA and associated management and development control objectives would not be affected. The magnitude of change affecting the 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 and Not Significant to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
NH1.4 North Caerphilly Viewpoint 9	Sensitivity As a local landscape designation (not of the highest or national level), the value of the North Caerphilly SLA is assessed as High to Medium. The susceptibility of the landscape qualities and features of the SLA to the type of development proposed is considered to be Medium. The stated landscape quality relating to a "*relatively gentle, rolling valley side*"[31] and "*lower valley sides are characterised by a mosaic of landscape habitats of rough pasture, semi improved grassland interspersed with hedgerows, hedgerow trees and small spinneys*"[31] as well as the SLA being crossed by the promoted Rhymney Valley Ridgeway Walk promoted long-distance route are indicators of a higher susceptibility to the Proposed Development which lies outside the SLA boundary. The qualities relating to human influences within the landscape, including "*to the area north of Machen a number of plantations dominate the landscape*" [31] and "*there are areas of derelict and reclaimed land associated with former mining and quarrying industries*" [31] are indicators of a lower susceptibility. Overall, the North Caerphilly 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 6.13b** indicates a small part of the northern boundary of the SLA coincides with the ZTV, west of Pontymister and south of Pontllanfraith, at a minimum distance of 6.0km. At these distances, the scale of the proposed turbines could give rise to a medium to low magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA.

Local Landscape Designation (see Figure 6.14)	Assessment
	Viewpoint 9 (**Figure 6.27**) reflects the type of visibility from the route of the Rhymney Valley Ridgeway Walk within the North Caerphilly SLA, west of Ynysddu. From this location the proposed turbines would appear as new vertical features of north-easterly views, affecting a small part of the overall visual experience (9°) as part of much wider panoramas where operational wind turbine development is already present at Oakdale Business Park, Pen-y-Fan Industrial Estate and Pen-y-Fan Ganol Farm, as well as various other operational schemes to the north and south. Additionally, the operational turbines at Bryn Ysgawen Farm and Tyle Crwth immediately adjoin the eastern boundary of the SLA while an operational solar farm and two communications masts also visible north of Mynydd y Lan, all occupying the landscape between the SLA and the Proposed Development. While the Proposed Development would result in an incremental increase in the presence of vertical, man-made features within north-easterly views from the North Caerphilly SLA, this would be experienced in the context of a horizontal field of view subject to various existing human influences, including settled valleys, operational solar infrastructure and existing wind turbine development. The Proposed Development would not adversely affect the identified landscape qualities and features of the SLA and associated management and development control objectives would remain equally unaffected[31]. The magnitude of change affecting the 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 and Not Significant to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
NH1.6 Myynddislwyn	<u>Sensitivity</u> As a local landscape designation (not of the highest or national level), the value of the North Caerphilly SLA is assessed as High to Medium. The susceptibility of the landscape qualities and features of the SLA to the type of development proposed is considered to be Medium to Low. Some of the qualities, notably those relating to an upland landscape with homogenous areas of moorland and forestry, are indicators of lower susceptibility. However, the levels of openness and the "*well-preserved irregular rural fieldscape*" [31] which occurs in parts of the SLA indicate a Medium susceptibility. Overall, the Myynddislwyn SLA has been assessed as being of *Medium* sensitivity to the Proposed Development. <u>Assessment of effects: Proposed Development</u> There would be no direct landscape effects arising from the Proposed Development. Reference to **Figure 6.13b** indicates a large part of the western SLA coincides with the ZTV, west of Abercarn, at a minimum distance of 1.5km. At these distances, the scale of the proposed turbines could give rise to a high to medium magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. The Proposed Development would not significantly alter the landscape qualities and features of the SLA, which is recognised for "*the importance of open moorland features in this part of the Borough and the quality of its associated landscape habitats*". However, the proximity of the SLA to the Proposed Development could result in attributable effects upon the management and development control objective aiming to prevent the "*area*

Local Landscape Designation (see Figure 6.14)	Assessment
	becoming too cluttered with incongruous vertical elements, including pylons and turbines to protect the vulnerable open integrity of the area"[8, 31]. The Proposed Development would introduce an incremental increase of prominent vertical elements within north-easterly views from the SLA at a minimum separation distance of 1.5km. This would be experienced in the context of the existing large-scale overhead electricity transmission line crossing the Proposed Development Site. The remaining key management and development control objectives would remain unaffected by the Proposed Development. The magnitude of change affecting the landscape qualities and features of the SLA would range from *Medium to Zero*. The effect of the Proposed Development would consequently range from **Moderate and Significant** to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
Torfaen SLAs	
C2/4 South West Uplands Viewpoint 3	Sensitivity As a local landscape designation (not of the highest or national level), the value of the South West Uplands SLA is assessed as High to Medium. The susceptibility of the landscape qualities and features of the SLA to the type of development proposed is considered to be Medium to Low. Some of the qualities; notably those relating to an upland landscape and lower levels of remoteness including settlement, industry and extensive forestry; are indicators of lower susceptibility. However, the levels of openness, popularity for recreation and historic assets are indicators of a slightly higher susceptibility. Overall, the South West Uplands 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 6.13b** indicates a moderate part of the western boundary of the SLA coincides with the ZTV, west of Cwmbran at a minimum distance of 2.5km. At these distances, the scale of the proposed turbines could give rise to a high to medium magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. Viewpoint 3 (**Figure 6.21**) reflects the type of visibility from the north-western corner of the South West Uplands SLA, at the summit of Mynydd Maen. From this location the proposed turbines would appear as new vertical features of westerly views, affecting a moderate part of the overall visual experience (43°) as part of much wider panoramas where operational wind turbine development is already present at Oakdale Business Park, Pen-y-Fan Industrial Estate and a number of other, more distant, schemes. Additionally, the existing large-scale overhead electricity transmission line crossing the Proposed Development Site and the communications mast on Mynydd Llwyd are prominent vertical features of westerly views from this elevated location on the western boundary of the SLA. While the Proposed Development would result in an incremental increase in the presence of vertical, man-made features within a reasonably broad extent of westerly views from the SLA, this would be wholly located within a part of the baseline view that is already occupied by vertical, man-made infrastructure. The scale of the Proposed Development appears congruous in the context of

Local Landscape Designation (see Figure 6.14)	Assessment
	these existing features of the view. The Proposed Development would not adversely affect the identified landscape qualities and features of the SLA and the associated management and development control objectives would remain equally unaffected[36]. The magnitude of change affecting the landscape qualities and features of the SLA would range from *Medium to Zero*. The effect of the Proposed Development would consequently range from Moderate and Not Significant to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
C2/5 Blaenavon Heritage Landscape	Sensitivity As a local landscape designation (not of the highest or national level), the value of the Blaenavon Heritage SLA is assessed as High to Medium. The susceptibility of the landscape qualities and features of the SLA to the type of development proposed is considered to be Medium. Some of the qualities; notably those relating to a simple, upland and large-scale landscape and lower levels of remoteness related to industry; are indicators of lower susceptibility. However, the levels of openness, exposure, panoramic views and a strong sense of place are indicators of a slightly higher susceptibility. Overall, the Blaenavon Heritage 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 6.13b** indicates a small part of the western boundary of the SLA coincides with the ZTV, across the southern hill slopes of Coety Mountain at Mynydd Farteg Fawr, at a minimum distance of 8.75km. At these distances, the scale of the proposed turbines could give rise to a medium to low magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. The management and development control objectives defined for SLA in planning policy[36] determines "*avoid encroachment upon SLA through development*". The Proposed Development would result in a distant and incremental increase in the presence of man-made vertical features within southerly views from a limited part of the SLA; where extensive human influences across the South Wales valley are already evident. The Proposed Development would not result in the encroachment of development into the Blaenavon Heritage SLA. Furthermore, the Proposed Development would not adversely affect the identified landscape qualities and features of the SLA and the remaining management and development control objectives would remain equally unaffected[36]. The magnitude of change affecting the landscape qualities and features of the SLA would range from *Very Low to Zero*. The effect of the Proposed Development would consequently range from Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
C2/6 Eastern Uplands Viewpoint 13	Sensitivity As a local landscape designation (not of the highest or national level), the value of the Eastern Uplands SLA is assessed as High to Medium. The susceptibility of the landscape qualities and features of the SLA to the type of development proposed is considered to be Medium. Some of the qualities; notably those relating to an upland (ridgeline) landscape of medium scale and

Local Landscape Designation (see Figure 6.14)	Assessment
	uniform character; are indicators of lower susceptibility. However, the levels of openness, exposure and historic landscape are indicators of a slightly higher susceptibility. Overall, the Eastern Uplands 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 6.13b** indicates a large part of the SLA coincides with the ZTV, east of Cwmavon at a minimum distance of 7.75km. At these distances, the scale of the proposed turbines could give rise to a medium to low magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. Viewpoint 13 (**Figure 6.31**) reflects the type of visibility from the eastern part of the SLA, at the summit of Mynydd Garnclochdy. From this location the proposed turbines would appear as new vertical features of south-westerly views, affecting a small part of the overall visual experience (2°) as part of much wider panoramas where operational wind turbine development forms an existing feature, albeit distant, at Bryn Ysgawen Farm and Tyle Crwth. The separation distance to the Proposed Development would result in an incremental increase in the presence of vertical, man-made features within a very narrow proportion of the horizontal field of view to the southwest. The Proposed Development would not adversely affect the identified landscape qualities and features of the SLA and the associated management and development control objectives would remain equally unaffected[36]. The magnitude of change affecting the landscape qualities and features of the SLA would range from *Very Low to Zero*. The effect of the Proposed Development would consequently range from Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
C2/7 Afon Llwyd Valley	Sensitivity As a local landscape designation (not of the highest or national level), the value of the Afon Llwyd Valley SLA is assessed as High to Medium. The susceptibility of the landscape qualities and features of the SLA to the type of development proposed is considered to be Medium. Some of the qualities; notably those relating to enclosure, settlement, transport corridors and industrial land use; are indicators of lower susceptibility. However, the lowland valley landscape, small-scale field pattern and extensive mixed woodland are indicators of a slightly higher susceptibility. Overall, the Afon Llwyd Valley 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 6.13b** indicates a moderate part of the SLA coincides with the ZTV, east and west of Cwmavon at a minimum distance of 5.5km. At these distances, the scale of the proposed turbines could give rise to a medium magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. At distances in excess of 5.0km, the Proposed Development would not be of a scale which would dominate the landscape pattern of "*network of enclosed fields, bounded by hedgerows, with hedgerow trees and interspersed with small broad leaved woods*"[36]. Although, the proposed turbines would appear as

Local Landscape Designation (see Figure 6.14)	Assessment
	a new feature affecting a small part of the overall visual experience gained from this landscape, this introduction is illustrated by **Figure 6.13b** as being limited to the eastern and western margins of the SLA where extensive mixed woodland frequently foreshortens outward visibility. The Proposed Development would not adversely affect the identified landscape qualities and features of the SLA and the associated management and development control objectives would remain equally unaffected[36]. The magnitude of change affecting the 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 and Not Significant to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
C2/8 Western Uplands Viewpoint 10	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 landscape qualities and features of the SLA to the type of development proposed are considered to be Medium to Low. Some of the qualities, notably those relating to the "*small valleys, more enclosed and vegetated with a regular pattern of small side fields*"; are more susceptible to change. However, other qualities are associated with the open upland plateau and homogenous land cover of heath and grassland 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. Reference to **Figure 6.13b** indicates a moderate part of the SLA coincides with the ZTV, across the upland plateau at Byrgwm, Waun Wen and Twyn Du, at a minimum distance of 4.5km. At these distances, the scale of the proposed turbines could give rise to a high to medium magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. Viewpoint 10 (**Figure 6.28**) reflects the type of visibility from the central, elevated part of the SLA, at Waun Wen. From this location the proposed turbines would appear as new vertical features of southerly views, affecting a small part of the overall visual experience (9°) as part of much wider panoramas where operational wind turbine development is already present at Coed y Gilfach Farm, on land between the SLA and the Proposed Development Site. Further operational wind turbine development is also visible in the direction of the Proposed Development at Oakdale Business Park, Pen-y-Fan Industrial Estate and to the west, at Pen Y Fan Ganol Farm, Cruglwyn and Gelli-wen Farm. At distances in excess of 4.0km, the Proposed Development would not be of a scale that would dominate the large-scale, simple and homogenous land cover that coincides with the ZTV illustrated in **Figures 6.13b.** This unenclosed and elevated land is considered more able to accommodate wind turbines. The series of small valleys to the east, lying outwith the ZTV, would not be altered by the Proposed Development. The Proposed Development would result in an incremental increase in the presence of vertical, man-made features within a small proportion of the horizontal field of view to the south, where operational turbines are already present. The scale and spatial arrangement of the Proposed Development would appear congruous in the context of the

Local Landscape Designation (see Figure 6.14)	Assessment
	operational turbines in the view. The Proposed Development would not adversely affect the identified landscape qualities and features of the SLA[36]. The magnitude of change affecting the 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 and Not Significant to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
Blaenau Gwent SLAs	
ENV2.1 St. Illtyd Plateau and Ebbw Eastern Sides Viewpoint 6	Sensitivity As a local landscape designation (not of the highest or national level), the value of the St. Illtyd Plateau & Ebbw Eastern Sides SLA is assessed as High to Medium. The susceptibility of the landscape qualities and features of the SLA to the type of development proposed are considered to be High to Medium. 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*"[34], 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. Reference to **Figure 6.13b** indicates a large part of the SLA coincides with the ZTV, across the core of the SLA at St. Illtyd and east of Llanhilleth as well as north of Swffryd, at a minimum distance of 1.75km. At these distances, the scale of the proposed turbines could give rise to a high to medium magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. Viewpoint 6 (**Figure 6.24**) reflects the type of visibility from the central, part of the SLA, south of St. Illtyd. From this location, the proposed turbines would appear as new vertical features of panoramic southerly views from the SLA, affecting 22° of the horizontal field of view over a minimum separation distance of 1.75km. Although operational wind turbine development is visible to the west; including the schemes at Pen-y-Fan Industrial Estate, Oakdale Business Park, Pen-y-Fan Ganol Farm and Gelli-wen Farm; the prominence of the Proposed Development in southerly views 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 landscape qualities and features of the SLA would range from *High to Zero*. The effect of the Proposed Development would consequently range from **Major and Significant** to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
ENV2.2 Eastern Ridge and Mynydd James Viewpoint 10	Sensitivity 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.

Local Landscape Designation (see Figure 6.14)	Assessment
	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 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 surrounding areas. 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 6.13b** indicates a large part of the SLA coincides with the ZTV, across the western hill slopes of Byrgwm, Waun Wen and Twyn Du and across the summit at Coety Mountain, at a minimum distance of 5.75km. At these distances, the scale of the proposed turbines could give rise to a medium magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. Viewpoint 10 (**Figure 6.28**) is representative of the type of visibility from the core of the SLA, at Waun Wen. From this location the proposed turbines would appear as new vertical features of southerly views, affecting a small part of the overall visual experience (9°) as part of much wider panoramas where operational wind turbine development is already present at Coed y Gilfach Farm, on land between the SLA and the Proposed Development Site. Further operational wind turbine development is also visible in the direction of the Proposed Development at Oakdale Business Park, Pen-y-Fan Industrial Estate and to the west, at Pen Y Fan Ganol Farm, Cruglwyn and Gelli-wen Farm. At distances in excess of 5.5km, the Proposed Development would not be of a scale that would dominate the large-scale, simple and homogenous land cover that coincides with the ZTV illustrated in **Figures 6.13b.** This unenclosed and elevated land is considered more able to accommodate wind turbines. In closest proximity to the Proposed Development Site, the valley sides of the Ebbw Fach Valley are well-wooded, particularly east of Abertillery thereby reducing intervisibility and the potential for indirect landscape effects. The Proposed Development would result in an incremental increase in the presence of vertical, man-made features within a small proportion of the horizontal field of view to the south, where operational turbines are already present. The scale and spatial arrangement of the Proposed Development would appear congruous in the context of the operational turbines in the view. The Proposed Development would not adversely affect the identified landscape qualities and features of the SLA[34]. The magnitude of change affecting the 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 and Not Significant to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
ENV2.3 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 landscape qualities and features of the SLA to the type of development proposed are considered to be High to Medium. The SLA displays a number of qualities which are indicative of a higher susceptibility

Local Landscape Designation (see Figure 6.14)	Assessment
	including the enclosed valley landform, mosaic of land cover as well as the "*strong rural character*" and "*hidden, 'tucked away' quality*"[34]. 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. Reference to **Figure 6.13b** indicates a small part of the SLA coincides with the ZTV, on the valley sides east and west of Gwmtillery at a minimum distance of 7.25km. At these distances, the scale of the proposed turbines could give rise to a medium to low magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. At distances in excess of 7.0km, the Proposed Development would not be of a scale that would dominate the enclosed valley within in the SLA and the "*strong rural character*" and "*hidden, 'tucked away' quality*"[34]. The proposed turbines would appear as a distant vertical feature affecting a small part of the overall visual experience gained from this landscape within south-easterly views. This introduction is illustrated by **Figure 6.13b** as being limited to the eastern and western margins of the SLA, with the closest areas of theoretical visibility demonstrated across a wooded area between Pen-y-Bont and East Bank on the slopes of Twyn Pentre. The Proposed Development would not adversely affect the identified landscape qualities and features of the SLA and the associated management and development control objectives would remain equally unaffected[34]. The magnitude of change affecting the landscape qualities and features of the SLA would range from *Very Low to Zero*. The effect of the Proposed Development would consequently range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
ENV2.4 Mynydd Carn-y-Cefn and Cefn yr Arail Viewpoint 16	Sensitivity 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 landscape qualities and features of the SLA to the type of development proposed is assessed as High to Medium. The SLA is recorded as including a landscape quality and feature relating to "*Panoramic views across to other ridges*"[34] as well as a management guideline to "*conserve remoteness and tranquillity",* a perceptual characteristic that is more susceptible to wind farm development. 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. Reference to **Figure 6.13b** indicates a large part of the southern SLA coincides with the ZTV within 10km of the Proposed Development, across the forked ridgeline west of Abertillery at Cefn yr Arail, at a minimum distance of 5.25km. At these distances, the scale of the proposed turbines could give rise to a medium magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. From the ridgeline at Cefn yr Arail, the Proposed Development would appear as new vertical features of panoramic south-easterly views from the SLA,

Local Landscape Designation (see Figure 6.14)	Assessment
	affecting part of the horizontal field of view across the St. Illtyd Plateau towards the ridgeline of Mynydd Llwyd, Mynydd Maen and Mynydd Twyn-glas. The prominence of the Proposed Development in southerly views would contrast with the small-scale field pattern characterising the adjoining St. Illtyd Plateau and Ebbw Eastern Sides SLA and would diminish the level of remoteness and tranquillity appreciated from the SLA, a primary landscape quality of this landscape. This visibility of the Proposed Development would, however, be experienced in the context of existing vertical features of the view, including various existing overhead transmission lines and operational wind turbines. The summit of Mynydd Carn-y-Cefn is located beyond 10km from the Proposed Development (11.6km, northwest). The Viewpoint Analysis presented in **Appendix 6J** identified no significant visual effects from this location where the Proposed Development would result in an incremental increase in the presence of man-made vertical features within south-easterly views. The magnitude of change affecting the landscape qualities and features of the SLA would range from *Medium to Zero*. The effect of the Proposed Development would consequently range from **Major/ Moderate and Significant** to None. The nature of these effects would be long-term (reversible), indirect, and adverse.
ENV2.6 Cefn Manmoel	<u>Sensitivity</u> 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 susceptibility of the landscape qualities and features of the SLA to the type of development proposed are considered to be Medium to Low. 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*"[34] available from the open upland ridge and resultant higher levels of intervisibility with the surrounding areas, combined with the distinctive small-scale field pattern relating to the old settlement of Manmoel within the southern 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. <u>Assessment of effects: Proposed Development</u> There would be no direct landscape effects arising from the Proposed Development. Reference to **Figure 6.13b** indicates a large part of the SLA coincides with the ZTV of the Proposed Development across three landscape types; the open upland ridge, the Manmoel Plateau and Ebbw Fawr valley sides; at a minimum distance of 5.75km. At these distances, the scale of the proposed turbines could give rise to a medium magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. The closest areas of theoretical visibility within the SLA, demonstrated by **Figure 6.13b**, are across the southern-most part of the designation where extensive woodland flanks the transport corridor of the A4046 and reducing outward visibility from the lower parts of the valley. Despite this, the Proposed Development would introduce a degree of intrusion and a new vertical influence within part of some outward views, affecting the degree of remoteness and tranquillity experienced, particularly from the more elevated and open locations of the SLA where limited intervening screening by

Local Landscape Designation (see Figure 6.14)	Assessment
	vegetation is present. The scale of the proposed turbines would not represent a dominant influence upon the historic and small-scale field pattern present across a proportion of the SLA. The Proposed Development would not adversely affect the remaining landscape qualities and features of the SLA. The remaining management and development control objectives would remain unaffected[34]. The magnitude of change affecting the landscape qualities and features of the SLA would range from *Medium to Zero*. The effect of the Proposed Development would consequently range from Moderate and Not Significant to None. The nature of these effects would be long-term (reversible), indirect, and adverse.

6.12 Assessment of visual effects

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."[14]

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 24 viewpoint locations and illustrated in **Figures 6.19 to 6.42**. The assessment of each viewpoint is recorded in **Appendix 6J**.

6.12.5 The visual assessment has been set out as follows:

- Visual Effects during Construction;
- Visual Effects during Operation;
  - Assessment of visual effects from settlements;
  - 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, PRoWs and Open Access Land; and
  - Assessment of visual effects from Transport Routes (A and B roads).

Visual Effects During Construction

6.12.6 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.

6.12.7 The assessed levels of effect would 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, towards the end 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 Proposed Development Site, including access works, and/ or temporary, such as construction compounds, and would be subject to restoration on completion of the construction period.

6.12.8 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 recreational users of local PRoW, bridleways and restricted byways, as well as the Taith Torfaen Anytime Challenge route, that traverse the lower slopes of Mynydd Llwyd in close proximity to the Proposed Development Site. Some routes would be required to be temporarily closed during construction. Temporary permissive routes would be provided, as well as information boards and signage, as part of a Management Plan implemented as part of the Construction Environment Management Plan (CEMP). The footpaths could remain open with appropriate management as set out in **Chapter 16: Socio-economics including tourism and recreation**.

  A number of other PRoWs cross Mynydd Llwyd together with open access land present across the southern slopes and the summit as well as across Mynydd Maen and Mynydd Twyn-glas.

  There are also a number of close residential properties to the access route including Cefn Gawni, Pen-y-Caeau Farm, Blaengwrney Farm, Cil-Ionydd and Glan Shon Farm. Where views are available to residents and recreational receptors, the magnitude of change would vary and potentially could be up to *Medium* for parts of some routes, open access land and from some properties, resulting in a **Major/ Moderate and Significant** effect that is temporary, and adverse.

- Substation Building:

  The single storey substation building is located ~1.1km west of T1 and ~1.4km north of T2. The substation building would be of traditional blockwork construction and faced in stone with a slate roof. Associated fencing would be either moorland green/brown or dark grey in order to blend with either the existing landscape colours or traditional building colours for the area. Views of appreciable magnitude would be limited to the PRoW and restricted byways in close proximity to the substation building, including footpaths CRUM/FP149/1 and CRUM/FP162/1 and restricted byways NWBG/RBW160/1, NWBG/RBW158/1 and NWBG/RBW161/1. Visibility of the substation building would also be attained from the nearby residential properties at Cefn Gawni and Pen-y-Caeau Farm. The magnitude of change would be *Low* 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.

- Temporary construction compound:

  The location of the single construction compound is illustrated on **Figure 4.1**. A maximum area of 50m x 50m in area has been assumed as a worse case for the assessment but this may be reduced depending on site requirements at the start of the construction phase. The temporary construction compound would include a temporary site office comprising a portacabin, a single parking space and a vehicle layby.

  The construction compound would be located to the east of Pen-y-caeau Farm, in close proximity to a disused quarry and the existing agricultural buildings further east towards Mynydd Maen. Views of the compound are likely to be available to residents at Pen-y-caeau Farm, including 'The Barn', and walkers travelling on NWBG/RBW160/1, NWBG/RBW161/1 and CRUM/FP162/1 and using the open access land adjoining the compound to the south and east.

  The proximity of recreational receptors to the compound means that the magnitude of change could locally rise to *Medium*, such that the level of visual effect would be **Major/ Moderate and locally Significant**. For residents, the magnitude of change would also be *Medium* and effects **Major/ Moderate and 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 construction compounds would be removed and the land reinstated.

Visual Effects During Operation

6.12.9 The assessed levels of effect are likely to be at their greatest during the period of operation, due to the visibility of the Proposed Development. 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

6.12.10 The assessment of visual effects from settlements is set out in **Table 6.22**. The Viewpoint Analysis presented in **Appendix 6J** identified no significant visual effects beyond a distance of 9.4km from the proposed turbines. As a consequence, the assessment of visual effects from settlements has been restricted to those which lie within a 10km buffer of the proposed turbines, and which coincide with the blade tip and hub height ZTVs shown in **Figures 6.2-6.6**.

Table 6.22 Assessment of visual effects from settlements

Receptor	Assessment
Within 10km	
Abercarn (Llanfach, Persondy, Celynen, High Meadow)	The settlement occupies the lower slopes and base of the Ebbw Valley, to the southwest of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) the northern part of the settlement is illustrated as having theoretical visibility of the Proposed Development, most notably at High Meadow, Celynen, Persondy, Llanfach and West End at a distance of 0.8km at the closest point. **Viewpoint 1** is located within the High Meadow area of the settlement and is assessed in detail in **Appendix 6J**. The majority of properties in the eastern part of High Meadow as well as Celynen, Persondy and Llanfach lie on the eastern flanking hills of the Ebbw Valley and therefore have a primary orientation to the southwest, northwest or southeast; with the

	Proposed Development located to the northeast. Visibility towards the Proposed Development Site would also be restricted by intervening screening by other residences or rising topography to the northeast. For north facing properties in Llanfach and on the western side of the Ebbw Valley, including the western part of High Meadow and the northern part of West End, a number of dwellings are orientated to the northeast towards the Proposed Development. Where visibility in these areas is not restricted by intervening built form, up to two hubs and three blade tips would be visible beyond the wooded slopes of Craig Glan-sion and Twyn-y-ganol. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from High to Zero. The level of effect from the settlement would range from **Major and Significant** to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Swffryd/ Hafodyrynys	The linear settlements of Swffryd and Hafodyrynys follow the northern flanking hills and base of the valley of the Cwm y Glyn, north of the Proposed Development Site and the A472. With reference to the ZTVs (**Figures 6.2-6.6**), a large part of the settlements are illustrated as having theoretical visibility of the Proposed Development, most notably across more elevated parts of Swffryd, north of the B4471, at a distance of 1.4km at the closest point. The majority of properties in Hafodyrynys, on the valley floor of the Cwm y Glyn, lie within ZTV coverage, with **Figures 6.2-6.6** illustrating theoretical visibility of up to one hub and one blade tip. However, actual visibility towards the Proposed Development Site would be restricted by extensive mature forestry (comprising both coniferous and deciduous species) occupying the intervening southern flanking valley slopes while the primary orientation of a number of properties is to the north, with the Proposed Development located to the south. Where visibility towards the Proposed Development is attained from Hafodyrynys, up to one hub and one blade tip would be visible to the south. Any future felling of coniferous forestry on the upper southern hill slopes would likely result in a marginal increase in the visible extents of the Proposed Development. The majority of the settlement at Swffryd is shown as having theoretical visibility of the Proposed Development. The pattern of this visibility broadly mirrors that of the properties in Hafodyrynys for those dwellings located across the valley floor and lower hill slopes, although a greater number of properties in Swffryd have a primary orientation to the south, in the direction of the Proposed Development. However, the northern and eastern parts of Swffryd ascend higher up the northern side of the valley, achieving more inclusive visibility of the Proposed Development with up to four hubs and up to four blade tips visible from properties north of the B4471. A number of dwellings in this part of Swffryd have a primary orientation to the south, however, the orientation of properties transitions to a westerly direction as the settlement follows the terrain of the valley side. Although visibility towards the Proposed Development Site would often be restricted by intervening screening by other residences and the forestry lying on the opposing valley sides, the proposed turbines would frequently form a new feature of unobstructed views. Residents have a High susceptibility to change and the views in the direction of the Proposed Development 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 High to Zero. The level of effect would range from **Major and Significant** to None. The **Major and Significant** effects would be limited to northern parts of Swffryd whilst **Major/ Moderate and Significant** effects would be limited to lower lying parts of Swffryd and Hafodyrynys. The nature of these effects would be long-term (reversible), indirect and adverse.
Newbridge/ Trecelyn	The settlement occupies the flanking eastern and western slopes as well as the base of the Ebbw Valley, to the west of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) the eastern and western parts of the settlement are illustrated as having theoretical visibility of the Proposed Development, most notably

(Crumlin, Pantside, Treowen)	on the facing valley sides at Treowen, on the ridgeline at Pantside and across the western portion of the settlement following the A472 towards Pontllanfraith. The residential area at Pantside forms is the closest area of theoretical visibility, 1.5km west of the Proposed Development. **Viewpoint 2** is located within Pantside and **Viewpoint 4** lies within the Treowen area of the settlement. Both are assessed in detail in **Appendix 6J**. The majority of properties within the settlement are shown as falling within the ZTV illustrated by **Figures 6.2-6.6** with up to four hubs and up to four blade tips visible. A small proportion of residences within the southern part of Pantside are primarily orientated to the southwest, with the Proposed Development lying to the west. The orientation of properties within the western part of the settlement, along the A472, is varied and some areas of intervening mature woodland are present. The magnitude of change in these areas would frequently change along a single street and even within a discrete group of dwellings, such as a small cul-de-sac, as a result of variances in orientation and the degree of screening provided by other built form. From more elevated parts of the settlement; away from the valley floor on the facing slopes of the Ebbw Valley, at Treowen, and the valley of the Nant Gawni, at Pantside; less obstructed visibility of the Proposed Development would be achieved. Where visibility in these areas is not restricted by intervening built form, up to four hubs and up to four blade tips would be visible along the ridgeline at Twyn-y-ganol forming a prominent new feature of westerly views. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from High to Zero. The level of effect from the settlement would range from **Major and Significant** to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Pantygasseg	Pantygasseg is a small, linear settlement to the north of the Proposed Development Site occupying a narrow ridgeline of terrain formed by the valleys of the Cwm y Glyn, to the south, and the Nant Ffrwd-oer, to the north. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of the settlement is illustrated as having theoretical visibility of up to three hubs and up to three blade tips at a minimum distance of 1.9km. The primary orientation of the majority of residences on Bush Terrace and at New House is to the southeast. The Proposed Development is located to the southwest. Although some intervening vegetation is present along Tranch Road, dwellings in the western part of Pantygasseg would experience largely unobstructed, albeit angled, visibility towards the proposed turbines. The Proposed Development would form a prominent new vertical feature of the south-western visible horizon above the ridgeline formed by the western hill slopes of Mynydd Llwyd. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from *High to Zero.* The level of effect from the settlement would range from **Major and Significant** to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Llanhilleth/ Brynithel/ Glandwr	The settlement occupies the valley floor and northern flanking slopes of the Ebbw Valley, to the northeast of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**), partial visibility of the Proposed Development is demonstrated across the valley floor at Glandwr, while the more elevated parts of Llanhilleth and Brynithel are shown as having theoretical visibility of the Proposed Development as a whole at a distance of 3.0km at the closest point. The two eastern spurs of Llanhilleth following the valleys of the Nant Cyffin and Nant cnyw are located within ZTV coverage. The majority of properties in the eastern part of Llanhilleth lie on the eastern flanking hills of the Ebbw Valley and therefore have a primary orientation to the southwest; with the Proposed Development located to the southeast. Visibility towards the Proposed

	Development Site would also be restricted by intervening screening by other residences or mature vegetation to the south. The terraced properties within the northern part of Llanhilleth and Brynithel are located higher up the valley sides and have a primary orientation to the south and southeast, towards the Proposed Development. The terraced nature of these properties, on the sloping terrain, reduces the opportunity for screening by nearby built form resulting in up to four hubs and up to four blade tips being visible. Across the base of the valley, at Glandwr, up to one hub and one blade tip would be visible in proximity to the Glandwr Industrial Estate which would provide some screening to oblique views of the Proposed Development. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from High to Zero. The level of effect from the settlement would range from **Major and Significant** to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Croespenmaen/ Oakdale (Kendon, Penmaen)	The broadly linear and continuous settlements of Croespenmaen and Oakdale lie to the northwest of the Proposed Development across land which gradually falls to the north. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of both settled areas is illustrated as having theoretical visibility of the Proposed Development, at a minimum distance of 3.4km. The reasonably high density of both communities is predicted to restrict outward visibility to the southwest, towards the Proposed Development. The gradual loss of elevation from south to north would also suggest that dwellings across the northern part of both settlements would be less likely to have actual visibility of the proposed turbines. Conversely, residents on the southern edge of Oakdale and the eastern edge of Croespenmaen would be the most likely to attain views towards the Proposed Development Site, most notably across recent residential development on the margins of both communities. Outward visibility from these margins of the settled areas to the Proposed Development would be reduced to a degree by large-scale industrial buildings south of Croespenmaen, at Croespenmaen Industrial Estate, and by extensive areas of field boundary vegetation and mature woodland east of Croespenmaen and south of Oakdale. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would be *Medium* for properties on the southern margins of Oakdale and eastern edge of Croespenmaen. However, the magnitude of change for the remainder of both communities would be *Very Low*. The level of effect on the settled edge would be **Major/ Moderate and Significant** with the level of effect across the remainder of both settlements being Moderate/ Minor and Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.
Crosskeys/ Pontywaun	These linear settlements occupy part of the lower slopes and the base of the Ebbw Valley, south of the Proposed Development Site and flanking the Monmouthshire and Brecon Canal. With reference to the ZTVs (**Figures 6.2-6.6**), a small part of eastern Pontywaun and southern Crosskeys, north of the A467, are shown as having partial theoretical visibility of the Proposed Development, most notably across the Newtown areas of Crosskeys. The closest area of ZTV coverage is within Pontywaun at a minimum distance of 3.6km. The majority of both Crosskeys and Pontywaun are shown as having no theoretical visibility of the Proposed Development with the narrow and enclosed Ebbw Valley limiting outward visibility to the north, towards the Proposed Development Site. A small area of theoretical visibility of one blade tip is demonstrated for the northern-most part of Pontywaun, on the western hill slopes of Medart (**Figures 6.2-6.6**). In reality, the primary orientation of dwellings in this area is across the Ebbw Valley to the west and oblique visibility of a small portion of the Proposed Development would be subject to screening by intervening built form and mature woodland, including at Abercarn Fach.

	From Crosskeys, theoretical visibility of one blade tip is illustrated from the Newtown area on the southern margins of the Ebbw River. The orientation of the terraced properties in this area varies greatly. Consequently, the visibility of a single blade tip would frequently change along different streets as a result of this variance in orientation and the degree of screening provided by other built form. The Proposed Development is anticipated to comprise a very minor addition to channelled views through the Ebbw Valley, to the north, often screened by intervening built form or mature vegetation. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from Very Low to Zero. The level of effect from the settlement would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Trinant/ Pent-wyn	The two communities of Trinant and Pent-wyn are located alongside one another, east of the Ebbw Valley and northeast of the Proposed Development. With reference to the ZTVs (**Figures 6.2-6.6**) both settlements are illustrated as having theoretical visibility of the Proposed Development, at a distance of 3.9km at the closest point. The density of both communities is quite high while the predominant property orientation is on an east-to-west alignment. The Proposed Development is located to the southwest, with this boundary of both settlements reasonably well-wooded and the land to the eastern periphery also populated by various areas of mature vegetation. It is also noted that there are playing fields/ open spaces on the eastern boundary of both settlements; north of Cedar Road in Trinant and north of Llanerch Lane in Pent-wyn. Both of these spaces enclosed to a degree by mature woodland. Partial visibility of the Proposed Development could be attained from a portion of the roads within Trinant, which lie on a northwest-southeast orientation. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would be *Medium* for properties on the eastern margins of both settlements. However, the magnitude of change for the remainder of both communities would be *Very Low*. The level of effect on the eastern edge of the settlement would be **Major/ Moderate and Significant** with the level of effect across the remainder of both settlements being Moderate/ Minor and Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.
Blackwood/ Pontllanfraith (The Bryn, Gelligroes)	The communities of Blackwood and Pontllanfraith form a large, settled area west of the Proposed Development, encompassing a number of smaller residential areas including The Bryn, Gelligroes, flanking the course of the Sirhowy River. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of both settled areas is illustrated as having theoretical visibility of the Proposed Development, at a minimum distance of 3.9km at the closest point. **Viewpoint 8** is located within Blackwood and is assessed in detail in **Appendix 6J**. Theoretical visibility of up to four hubs and up to four blade tips is demonstrated across a large proportion of both settlements. However, the profile of the landform on the margins of the Sirhowy River gradually falls to the west for a large area of Pontllanfraith, where the primary orientation of properties is north-south or northwest-southeast, and the Woodfieldside area of Blackwood, where the primary orientation is on an east-west alignment. The combination of reducing elevation and the density of built form is predicted to markedly reduce attainable views to the Proposed Development. From the western part of Blackwood and Pontllanfraith, the density of built form is again expected to reduce opportunities for actual visibility of the proposed turbines. In addition to dwellings, the eastern edge of both communities is defined by a series of larger industrial and retail units including at Newbridge Road Industrial Estate, Penmaen Industrial Estate, Blackwood Gate Retail Park and Blackwood High Street.

	Intervisibility with the Proposed Development would also be reduced by the screening influence of mature vegetation following the course of the Sirhowy River. Unobstructed visibility of the proposed turbines would be achieved in certain areas on the open edges of settled areas. This includes from Blackwood Show Fields/ Cefn Forest, on Greenwood Road in Blackwood, where visibility of two hubs and three blade tips is available. The screening influence of mature woodland enveloping Blackwood Golf Course is an important influence in views from this area (**Viewpoint 8, Appendix 6J**). Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would be *Medium* for properties on the margins of the settled area. However, the magnitude of change for the remainder of both communities would be *Very Low*. The level of effect on the settled edge would be **Major/ Moderate and Significant** with the level of effect across the remainder of both settlements being Moderate/ Minor and Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.
Pontypool (Trevethin, Pontnewynydd, Penygarn, Wainfelin, Tranch, Cwm Ffrwd-oer, Pentre-Piod, Snatchwood/ Pen-twyn and Old Furnace)	Pontypool forms a large suburban area across the lower slopes and base of the Afon Llwyd Valley, to the northeast of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) the north-eastern area at Trevethin, Pontnewynydd and Penygarn as well as the western margins of the settlement at Tranch, Cwm Ffrwd-oer, Pentre-Piod and Snatchwood are illustrated as having theoretical visibility of the Proposed Development at a distance of 4.0km at the closest point. A large proportion of Pontypool, mainly at lower elevations across the floor of the Afon Llwyd Valley, lies outside the ZTV pattern of the Proposed Development. **Figures 6.2-6.6** demonstrate theoretical visibility of up to one hub and up to two blade tips from the peripheral parts of Pontypool. The terraced properties within the northern area of Trevethin are located higher up the valley sides and have a primary orientation to the southwest, towards the Proposed Development. The terraced nature of these properties, on the sloping terrain, reduces the opportunity for screening by intervening built form resulting in visibility of up to one hub and up to two blade tips in views towards Twyn Calch, Mynydd Llwyd and Mynydd Maen. The extensive area of coniferous forestry clothing the northern hill slopes of Mynydd Llwyd is predicted to reduce the visible extents of the Proposed Development. The areas of Pontnewynydd and Penygarn are predominantly aligned on a north-south orientation and located at lower elevations. The margins of these areas are also populated by reasonably extensive areas of mature woodland, which would foreshorten outward visibility in the direction of the Proposed Development. The nature of views in Pontnewynydd and Penygarn would frequently change along a single street and even within a discrete group of dwellings, such as a small cul-de-sac, as a result of variances in orientation and the degree of screening provided by other built form. On the whole, available views to the proposed turbines are expected to be limited. From the western margins of Pontypool; at Tranch, Old Furnace, Cwm Ffrwd-oer, Pentre-Piod and Snatchwood/ Pen-twyn; visibility of up to one hub and up to two blade tips is illustrated by **Figures 6.2-6.6**. Views towards the Proposed Development Site from these areas would frequently be restricted by intervening mature woodland lining the valley of the Cwm y Glyn and bordering settled areas west of Tranch, enclosing Old Furnace and west of Wainfelin. The coniferous forestry across the northern hill slopes of Mynydd Llwyd would also restrict the visible extents of the Proposed Development. Overall, the proposed turbines would form a minor new feature of south-westerly views towards Mynydd Llwyd. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from Low to Zero. The level of effect from the settlement would range from Moderate and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.

St Illtyd	The historic village of St Illtyd occupies part of an elevated plateau of small-scale farmland northwest of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of the village is illustrated as having theoretical visibility of the Proposed Development, at a minimum distance of 4.3km. **Viewpoint 6** is located on the PRoW network to the east of the village and is assessed in detail in **Appendix 6J**. Although shown by **Figures 6.2-6.6** as achieving unobstructed visibility of the Proposed Development, field survey confirmed that outwards visibility to the southeast, towards the proposed turbines, from the tight network of buildings within the village was quite limited. This limitation of visibility is reinforced by the mature pattern of field boundary vegetation lying southeast of the village. Successive layers of screening provided by mature hedgerows with trees denoting the boundaries of the small-scale field pattern foreshorten views from residential properties. Despite this, properties on the southern side of the village would have visibility of up to four hubs and up to four blade tips and the Proposed Development would introduce new, man-made vertical features to south-easterly views. It is important to note that although located in close proximity to St Illtyd, Viewpoint 6 is considered representative of views available to users of the PRoW network east of the village. Visibility of the Proposed Development from the core of the village and outer-lying properties would be more restricted. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a High value, resulting in an overall *High* sensitivity. The magnitude of change would be *Medium to Zero*. The level of effect would be **Major/ Moderate and Significant** to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Abersychan	The principally linear settlement of Abersychan lies within a narrow section of the Afon Llwyd valley, north of Pontypool and northeast of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) small parts of the southern and eastern settlement are illustrated as having theoretical visibility of the proposed turbines. A larger area of the northern settlement on the upper western valley slopes of the valley is also shown as having theoretical visibility of the Proposed Development at a minimum distance of 5.3km. The majority of Abersychan is shown as having no theoretical visibility of the Proposed Development with the narrow and enclosed Afon Llwyd Valley limiting outward visibility to the southwest, towards the Proposed Development Site. Although theoretical visibility of up to one hub and up to one blade tip is shown from small southern and eastern parts of the settlement, in reality the density of built form is predicted to restrict these views. From the upper western valley slopes, south of Varteg, available views of the Proposed Development would frequently change along a single street and even within a discrete group of dwellings, such as a small cul-de-sac, as a result of variances in orientation and the degree of screening provided by other built form. On the whole, available views to the proposed turbines are expected to be very limited with the Proposed Development comprising a minor new feature of south-westerly views in the limited instance where actual visibility is attained. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from Very Low to Zero. The level of effect from the settlement would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Argoed	This linear settlement occupies the western hill slopes of the Sirhowy River valley, to the northwest of the Proposed Development Site, and west of the A4048 Newport Road. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of the village is

	illustrated as having theoretical visibility of the Proposed Development, at a minimum distance of 6.5km. At lower elevations in close proximity to the A4048 Newport Road, mature woodland to the east of the village restricts easterly visibility towards the Proposed Development Site. With increased elevation up the eastern valley side, more open visibility is achieved to the east from Penylan Road and Gelynos Avenue. However, the terraced layout of dwellings means adjoining properties could obstruct views of the proposed turbines. The well-wooded eastern hill slopes of the Sirhowy Valley as well as field boundary vegetation and woodland enclosing Pen-y-Fan Industrial Estate offer further screening influences. The operational turbines at Oakdale Business Park and Pen-y-Fan Industrial Estate form prominent vertical man-made feature within available views, located ~1.5km to the east. The Proposed Development would result in an incremental increase in the presence of vertical, man-made features within a small proportion of the horizontal field of view to the east, where operational turbines and large areas of built form are already present. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from Low to Zero. The level of effect from the settlement would range from Moderate and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Abertillery	The settlement occupies the lower slopes and base of the Ebbw Valley, to the north of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) the vast majority of the settlement is illustrated as having no theoretical visibility of the Proposed Development. A very marginal area of theoretical visibility is demonstrated for the northern-most portion of the settlement, at a minimum distance of 7.3km, encompassing the residential properties on the eastern hill slopes of Coed Castellau at Ty Dan y Wal Road in the West Bank area of Abertillery The density of properties is quite high with the primary property orientation on an east-to-west alignment. The Proposed Development is located to the south, with the remaining parts of Abertillery occupying in this direction as well as the extensive wooded area at Coed Cwm-Ilwydrew, both of which are judged to foreshorten oblique and gable end views towards the Proposed Development Site. Partial visibility of the Proposed Development could be achieved from a portion of the Ty Dan y Wal Road, which lies on a north-south orientation. The proposed turbines would be seen as an increasingly distant feature of the skyline profile, forming a minor new feature of views. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from Very Low to Zero. The level of effect from the settlement would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Markham	The settlement occupies the southern slopes of the Sirhowy River valley, to the northwest of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of the settlement is illustrated as having theoretical visibility of the Proposed Development, at a minimum distance of 7.4km. A marginal area of the northern settlement adjoining the A4048 is shown as having no theoretical visibility of the proposed turbines. The density of properties within Markham is quite high and the primary property orientation is on a north-to-south or northeast-to-southwest alignment. The Proposed Development is located to the southeast. The profile of the landform falls in elevation to the north towards the Sirhowy River which, when combined with the dense pattern of built form, is considered to restrict visibility towards the Proposed Development to the southern and eastern parts of the settlement. The proposed turbines are expected to form more distant and visible features of views from properties on the eastern side of

	John Street and within views at an oblique angle from dwellings on the southern side of James Street and eastern edge of the village on the B4511. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would be *Low* for properties on the eastern and southern edges of Markham. However, the magnitude of change for the remainder of the community would be *Very Low*. The level of effect on the eastern and southern edges would be Moderate and Not Significant with the level of effect across the remainder of Markham being Moderate/ Minor and Not Significant. The nature of these effects would be long-term (reversible), indirect and adverse.
Hengoed/ Cefn Hengoed	The area of Hengoed/ Cefn Hengoed occupies an elevated parcel of land east of the Rhymney River between Gelligaer, to the north, and Ystrad Mynach, to south; west of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of the settlement is illustrated as having theoretical visibility of the Proposed Development, at a minimum distance of 7.5km. A marginal area of the eastern settlement is shown as having no theoretical visibility of the proposed turbines. The density of the settlement is fairly high in this suburban area where available views of the Proposed Development would frequently change along a single street and even within a discrete group of dwellings, such as a small cul-de-sac, as a result of variances in orientation and the degree of screening provided by other built form. On the whole, available views to the proposed turbines are expected to be limited by the substantial areas of intervening settlement, including the larger built form of the Hawtin Industrial Estate, and the mature woodland following the course of the Rhymney River to the east. The Proposed Development would comprise an incremental man-made feature of easterly views in the limited instances where actual visibility is achieved. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from Low to Zero. The level of effect from the settlement would range from Moderate and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Ystrad Mynach (Maesycwmmer)	Ystrad Mynach is located across the flanking hill slopes and valley floor of the Rhymney River, west of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of the settlement is illustrated as having no theoretical visibility of the Proposed Development. The eastern part of the Maesycwmmer area of Ystrad Mynach, south of the Rhymney River and the A472, is illustrated as having theoretical visibility of up to four hubs and four blade tips, at a minimum distance of 7.9km. The density of properties is fairly high in this suburban area and is expected to limit outward visibility to the Proposed Development. The primary orientation of properties is either on a north-south or northwest-southeast orientation with the Proposed Development being located to the east. Mature woodland also flanks the eastern periphery of Maesycwmmer, adjoining the A472 and Bryn Meadows Golf Course. Available visibility to the proposed turbines is expected to be restricted to oblique and partial views that would be limited by the substantial areas of intervening settlement and the mature woodland to the east. The Proposed Development would comprise an incremental man-made feature of easterly views in the very limited instances where actual visibility is achieved. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from Very Low to Zero. The level of effect from the settlement would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.

Gelligaer/ Penybryn/ Penpedairheol	The settled areas of Gelligaer, Penybryn and Penpedairheol lie northeast of the ridgeline of terrain occupied by Hengoed/ Cefn Hengoed, west of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of each settled area is illustrated as having theoretical visibility theoretical visibility of up to four hubs and four blade tips, at a minimum distance of 8.2km. **Viewpoint 14** is located on the northern edge of Gelligaer and is assessed in detail in **Appendix 6J**. The density of built form is high in these suburban areas. Available views of the Proposed Development would frequently change along a single street and even within a discrete group of dwellings, such as a small cul-de-sac, as a result of variances in orientation and the degree of screening provided by other built form. On the whole, visibility of the Proposed Development is expected to be limited to the northern and eastern margins of each settled areas. The sloping terrain profile, intervening raised settlement at Hengoed/ Cefn Hengoed and the screening provided by broader areas of built form and mature vegetation are all factors in reducing opportunities for available views of the proposed turbines. As assessed in **Appendix 6J**, available views from Gelligaer are markedly reduced for the majority of properties by intervening vegetation; comprising mature mixed field boundary vegetation and mixed woodland surrounding Gelligaer Cemetery and bordering Pengam Road. Easterly views from Penybryn and Penpedairheol would be similarly filtered by mature vegetation bordering their eastern margins with the large-scale industrial units of the Penalta Industrial Estate forming an additional screening influence for properties in Penybryn. The Proposed Development would comprise a distant and incremental man-made feature of easterly views across an extensively settled and developed landscape in the limited instances where actual visibility is achieved. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from *Low to Zero.* The level of effect from the settlement would range from Moderate and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Bargoed/ Aberbargoed	The community of Bargoed/ Aberbargoed is located within the Rhymney River Valley northwest of the Proposed Development. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of the eastern settlement is illustrated as having no theoretical visibility of the Proposed Development with the exception of an area of open space within Bargoed Woodland Park, west if the A4049. A large part of the western settlement, on the facing (western) hill slopes of the Rhymney Valley, is illustrated as having theoretical visibility of up to four hubs and up to four blade tips at a minimum distance of 8.8km. Bargoed Country Park is located on the eastern hill slopes of the Rhymney Valley, where the landform falls in elevation to the west. The Proposed Development lies to the east. This landform profile, in combination with the screening influence provided to the east of the park by mature boundary vegetation, intervening built form such as the larger industrial units at St Margaret's Park and the well-wooded character of the hill slopes east of the settlement, is predicted to noticeably reduce the visible extents of the Proposed Development from the park. Across lower elevations within western part of the settlement, the density of built form is high. Available views of the Proposed Development would frequently change along a single street and even within a discrete group of dwellings, such as a small cul-de-sac, as a result of variances in orientation and the degree of screening provided by other built form. Higher up the western side of the valley, a number of public open spaces are present including Bargoed Park, Bargoed Home Pitches and west of Hillside Park. The density of built form also reduces further west although the primary orientation of dwellings is still very mixed. On the whole, available views to the proposed turbines are expected to be limited by built form, the substantial areas of intervening settlement and the mature vegetation following the Rhymney River valley to the east. Some outward visibility to the east, in

	the direction of the Proposed Development, is expected from more elevated terraced properties and higher parts of Western Drive. The Proposed Development would comprise a distant and incremental man-made vertical feature of easterly views in the occasional instances where actual visibility is achieved. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from *Very Low to Zero*. The level of effect from the settlement would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Little Mill	Little Mill is located northeast of the Proposed Development, east of the A4042 Usk Road, on the A472. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of the settlement is illustrated as having theoretical visibility of up to one hub and up to one blade tip at a minimum distance of 9.3km. The density of residences within Little Mill is reasonably high with the primary orientation of properties lying on a northwest-to-southeast alignment. Some properties on the eastern edge of the village at Cae Melin, lie on an east-to-west alignment however the intervening built form of other properties would limit outward views to the Proposed Development Site from this location. The western boundary of the village is defined by the railway line, which is lined by mature woodland, as well as the Berthin Brook, flanked by mature vegatation and the route of the A4042. To the west of the A4042, the Mamhilad Park Estate and Usk Vale Park form prominent built form, again enclosed by mature woodland. Overall, views of the Proposed Development from Little Mill are judged to comprise partial visibility of a single turbine, at an oblique angle, over a separation distance in excess of 9.0km and subject to extensive intervening screening. The vast majority of the village would experience no visibility of the Proposed Development. Residents have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of a Medium to High value, resulting in an overall *High* sensitivity. The magnitude of change would range from *Very Low to Zero*. The level of effect from the settlement would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.

Residential Visual Amenity Assessment (RVAA)

6.12.11 The assessment of residential amenity is a planning matter that involves consideration of a number of effects (such as noise and shadow flicker), of which residential visual amenity is a single component. The RVAA is limited to the consideration of visual effects on the residential amenity of residential properties. Visual amenity is defined in guidelines for Landscape and Visual Assessment – Third edition 2013 (GLVIA3) as:

'the overall pleasantness of the views they enjoy of their surroundings' and 'Residential Visual Amenity means: the overall quality, experience and nature of views and outlook available to occupants of residential properties, including views from gardens and domestic curtilage. Residential Visual Amenity is one component of 'Residential Amenity' (Landscape Institute, 2019).

6.12.12 The methodology for RVAA is set out in **Appendix 6A** and accords with the advice in GLVIA 3, and the Landscape Institute's Residential Visual Amenity Assessment Technical Note 2/19, 15 March 2019. It involves a four-step process as follows:

- "*Step 1: Define Study Area and Identify properties to be assessed.*
- *Step 2: Evaluate baseline visual amenity of properties to be included having regard to the landscape and visual context and the development proposed.*

- *Step 3: Assessment of likely change to visual amenity of included properties in accordance with GLVIA3 principles and processes.*
- *Step 4: Further assessment of predicted change to visual amenity of properties to be included forming a judgement with respect to the Residential Visual Amenity Threshold.*"

6.12.13 Other factors affecting residential amenity such as noise and shadow flicker will not considered as part of the RVAA and can be found in **Chapter 13: Noise** and **Chapter 15: Shadow Flicker** respectively.

6.12.14 The RVAA for the Proposed Development will be set out in **Appendix 6K** (to be submitted alongside the final ES) and should be read in conjunction with this chapter of the EIA. Within 2km of the Proposed Development, 29 residential properties or small groups of properties that are overlapped by the blade tip ZTV, where the highest magnitude of change has the potential to occur, will be considered in the assessment and are shown on **Figure 6.17**. Figures supporting the RVAA are illustrated in **Figures 6.18a-ac**.

6.12.15 Although significant visual effects are anticipated from up to 23 residential properties or small groups of properties within 2km of the proposed turbines, the Proposed Development is not expected to compromise the residential visual amenity of any properties, affect living standards, or render any property an unattractive place to live when judged objectively, 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.** The Viewpoint Analysis presented in **Appendix 6J** identified no significant visual effects beyond a distance of 9.4km and as a consequence, the assessment of visual effects from promoted (regional) long distance footpaths include only those which lie within a 10km buffer of the proposed turbines. The location of the long distance promoted routes within 10km of the proposed turbines in relation to the blade tip and hub height ZTVs is shown in **Figure 6.14b**.

6.12.17 An assessment of the visual effects on users walking the Wales Coast Path, the only National Trail within the LVIA Study Area, has been scoped out of the assessment as recorded in **Table 6.12.**

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

Receptor	Assessment
Routes within 10km	
Taith Torfaen Anytime Challenge	The Taith Torfaen Anytime Challenge is separated into two 25 mile sections, a northern and southern loop, both starting and finishing at the Pontypool Active Living Centre in Torfaen. The route is illustrated on **Figure 6.14b** and **Viewpoints 3, 5, 10, 11,** and **13** are located on the route which are assessed in detail in **Appendix 6J.** The southern circuit of the route lies within 5km of the Proposed Development Site, originating in Pontypool and leaving the south-eastern edge of the settlement to cross the foothills of Twyn Calch and the extensive areas of coniferous forestry along the valley of the Cwm y Glyn; outside the theoretical visibility pattern of the Proposed Development (**Figure 6.14b**). ZTV coverage is indicated for the route as it crosses the northern foothills of Mynydd Llwyd, northeast of the proposed turbines, although the extensive coniferous forestry in this area would foreshorten views of the Proposed Development. The route then passes through the Proposed Development Site, following the network of PRoWs, bridleways and restricted byways in a broadly

southwest direction in close proximity to the proposed turbines, access tracks and substation.

From here, the route proceeds south to enter the settled area of Abercarn where intervening built form would reduce visibility of the Proposed Development. The southern loop of the Taith Torfaen Anytime Challenge then proceeds west to cross the open moorland at Mynyddislwyn. Although the western slopes of the Ebbw Valley bordering Abercarn are well-wooded, the Proposed Development would introduce new, prominent vertical features in north-easterly views from Mynyddislwyn over a minimum separation distance of 1.5km.

From Mynyddislwyn the route descends into the Sirhowy River valley, at Ynysddu. The southern loop then follows the southern, well-wooded slopes of the Sirhowy River Valley where no ZTV coverage is indicated by **Figure 6.14b** until the route reaches an area of ZTV coverage south of Crosskeys. The Proposed Development would form a prominent new vertical, man-made feature of channelled north-easterly views through the Ebbw Valley, with the potential for a degree of screening to be offered by the well-wooded intervening valley sides.

The route then crosses the Sirhowy Valley, outside ZTV coverage, to proceed north towards the Iron Age Fort at Twmbarlwn where areas of theoretical visibility are illustrated across the hill summit. The geographical extent of theoretical visibility in this location will be somewhat reduced, however, by coniferous forestry. From the summit at Twmbarlwn, the Proposed Development would form an incremental increase in vertical features, affecting 22° of the horizontal field of view towards Mynydd Maen, across a minimum distance of 3.6km.

From Twmbarlwn, the southern loop of the route follows the ridgeline of Mynydd Henllys in a north-easterly direction, skirting the western edge of Cwmbran and bordering the coniferous forestry southeast of Craig y Glyn, before ascending the southern slopes of Mynydd Maen to the summit. An existing 132kv overhead transmission line, and associated lattice towers, cross the moorland in this location forming prominent, vertical man-made features of the baseline landscape. The Proposed Development would be viewed in congruous scale with the existing vertical features of views from the summit of Mynydd Maen which include the communications mast on the summit of Mynydd Llwyd. From the summit of Mynydd Maen, the southern loop of the route follows the eastern slopes of Mynydd Twyn-glas, where ZTV coverage is limited to fragmented areas of blade tip visibility, to the northeastern edge of the settlement at Pontypool.

ZTV coverage across the northern loop of the Taith Torfaen Anytime Challenge is concentrated across two upland areas northeast and north of the Proposed Development Site, respectively. To the northeast, the route leaves the northern edge of Pontypool at Penygarn and crosses Little Mountain on the boundary of the BBNP to the open ridgeline of upland plateau at Mynydd Garn Wen and east of Mynydd Garnclochdy. The primary orientation of elevated views in this location is to the east, over the Usk Valley towards the BBNP. The Proposed Development would be visible to the southwest, across a separation distance of ~7.0km forming new man-made structures affecting a narrow part of the visible horizon (2°).

To the north, further ZTV coverage is shown across the very minor part of the route east of Coety Mountain and for a more sustained portion of the route as it crosses the open moorland east of Abertillery between Gwastad, Waun Wen and Byrgwm. While the Proposed Development would again form new, man-made vertical features of southerly views this introduction would be experienced in the context of the operation wind turbines at Coed y Gilfach Farm.

Walkers on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of High value resulting in an overall *High* sensitivity. The magnitude of change would range from *High*, across more elevated and exposed sections of the route where unobstructed visibility is available, to *Zero* due to the intervening screening influence of landform, vegetation and the built environment. The resulting level of effect would range from **Major and**

	Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Ebbw Vale Walk	The Ebbw Vale Walk follows the Ebbw Valley connecting the Sirhowy Valley Country Park, 4.9km to the southwest of the Proposed Development, and terminates near Festival Park, 10.5km to the northwest near Waun-Lwyd. At its closest point, the route passes within 1.6km of T4 on the western side of the Ebbw Valley above Abercarn. The southern section of the route between the Sirhowy Valley Country Park and Newbridge follows the western flanking slopes of the Ebbw Valley where coniferous forestry is extensive, enclosing outward visibility from the Ebbw Vale Walk. Northwest of Abercarn, at the route's closest point to the Proposed Development, the Ebbw Vale Walk crosses a short section (~175m) of recently felled coniferous forestry, allowing open views across the Ebbw Valley. The Proposed Development would form a prominent new vertical feature of easterly views from this location within 1.6km of the proposed turbines. As the route progresses north, it enters a network of smaller-scale, enclosed fields where mature boundary vegetation would frequently restrict views to the Proposed Development before the Ebbw Vale Walk enters the built up area of Newbridge. North of Newbridge, and south of Trinant/ Pen-Twyn, the route crosses the western side of the Ebbw Valley where views to the proposed turbines would be regularly fragmented by the well-vegetated boundaries of the network of small-to-medium scale fields. Northeast of Croespenmaen, the Ebbw Vale Walk would be completely enclosed by mature woodland for a ~0.6km section as it traces the route of the B4251 Kendon Road. To the east of Trinant, unobstructed south-easterly views of the Proposed Development would be available across the looped section of the route as it round Coed Trinant. North of Trinant, between 5-10km from the proposed turbines, south-easterly views of the Proposed Development would become increasingly fragmented and partial due to the screening influence of intervening mature field boundary vegetation and more extensive areas of coniferous forestry flanking the Ebbw Valley at Graig Fawr, Aberbeeg and Llan-dafal. Southeast of Manmoel, the route passes in close proximity to the operational wind turbine at Pen Y Fan Ganol Farm which subsequently forms a prominent vertical feature of south-easterly views towards the Proposed Development as the Ebbw Vale Walk proceeds in a broadly north-westerly direction to Waun Lwyd. Walkers on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of High value resulting in an overall *High* sensitivity. The magnitude of change would range from *High*, across more elevated parts of the route where unobstructed visibility is available, to *Zero* due to the intervening screening influence of landform, varied areas of vegetation and the built environment. The resulting level of effect would range from **Major and Significant** to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Cambrian Way	The Cambrian Way comprises an elevated coast to coast walking route through Wales and crosses the Study Area within 10km of the Proposed Development site on a broadly north-south alignment. The route is illustrated on **Figure 6.14b** and **Viewpoints 5, 11,** and **13** are located on the route which are assessed in detail in **Appendix 6J.** ZTV coverage for the route of the Cambrian Way is illustrated by **Figure 6.14b** across three main areas. Firstly, an area of theoretical visibility is demonstrated across the southern hill slopes of the Sirhowy Valley, south of the Newtown area of Crosskeys, ~5.3km south of the Proposed Development. The Proposed Development would form a prominent new vertical, man-made feature of channelled north-easterly views through the Ebbw Valley, with the potential for a degree of screening to be offered by the well-wooded intervening valley sides. The route then traces the path of the Taith Torfaen Anytime Challenge, crossing the Sirhowy Valley (outside ZTV coverage) to proceed north towards the Iron Age Fort at

	Twmbarlwn where a second area of theoretical visibility is illustrated across the hill summit. The geographical extent of theoretical visibility in this location will be somewhat reduced, however, by coniferous forestry. From the summit at Twmbarlwn, the Proposed Development would form an incremental increase in vertical features, affecting 22° of the horizontal field of view towards Mynydd Maen, across a minimum distance of 3.1km. From Twmbarlwn, the Cambrian Way follows the ridgeline of Mynydd Henllys in a north-easterly direction, skirting the western edge of Cwmbran and bordering the coniferous forestry southeast of Craig y Glyn where the route coincides with the Cistercian Way and Torfaen Trail, before ascending the southern slopes of Mynydd Maen to the summit. An existing 132kv overhead transmission line, and associated lattice towers cross the moorland in this location forming prominent, vertical man-made features of the baseline landscape. The Proposed Development would be viewed in congruous scale with the existing vertical features of views from the summit of Mynydd Maen which include the communications mast on the summit of Mynydd Llwyd. The final area of ZTV coverage within 10km of the Proposed Development is illustrated by **Figure 6.14b** across the upland area east of the Afon Llwyd valley and northeast of the Proposed Development Site. The route leaves the northern edge of Pontypool from Penygarn, following the Taith Torfaen Anytime Challenge, and crosses Little Mountain on the boundary of the BBNP to the open ridgeline of upland plateau at Mynydd Garn Wen and Mynydd Garnclochdy. The primary orientation of elevated views in this location is to the east, over the Usk Valley towards the BBNP. The Proposed Development would be visible to the southwest, across a separation distance of ~7.0km forming new man-made structures affecting a narrow part of the visible horizon (2°). Walkers on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of High value resulting in an overall *High* sensitivity. The magnitude of change would range from *High*, across more elevated parts of the route where unobstructed visibility is available, particularly in close proximity to the proposed turbines, to *Zero* due to the intervening screening influence of landform, vegetation and the built environment. The resulting level of effect would range from **Major and Significant** to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Cistercian Way (Wales)	The Cistercian Way (Wales) forms a circular pilgrimage trail throughout Wales and crosses within 10km of the Proposed Development Site between Rudry (~9.4km) southwest and Caerleon, ~10.0km southeast. ZTV coverage for the route of the Cistercian Way within 10km of the proposed turbines is illustrated by **Figure 6.14b** across two quite limited sections. Theoretical visibility of the hub and blade tips of the Proposed Development is shown for a 1.6km section of the ridgeline at Mynydd Henllys, west of Cwmbran and bordering the coniferous forestry southeast of Craig y Glyn, where the route coincides with the Cambrian Way, Torfaen Trail and Taith Torfaen Anytime Challenge. From here, the Proposed Development would form an incremental increase in vertical features, affecting 22° of the horizontal field of view towards Mynydd Maen, over a separation distance of 3.1km. The route of the Cistercian Way does not visit the Iron Age Fort at the summit of Twmbarlwn. A second area of theoretical visibility of blade tips only is illustrated by **Figure 6.14b** for a ~700m section of the route, ~5.6km southwest of the Proposed Development and west of Pontymister, in close proximity to the existing communications mast on Mynydd Machen and north of the remnant spoil tip north of Pen-Rhiw Warren. The Proposed Development would form a new vertical, man-made feature of channelled north-easterly views through the Ebbw Valley, with the potential for a degree of screening to be offered by the well-wooded intervening valley sides. Walkers on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of High value resulting in an overall *High* sensitivity. The magnitude of change would range from *High*, across the two localised sections of the route where unobstructed visibility is available, to *Zero*

	for the remaining majority of the Cistercian Way due to the intervening screening influence of landform, vegetation and the built environment. The resulting level of effect would range from **Major and Significant** for two localised section of the route to None for the remaining majority of the Cistercian Way. The nature of these effects would be long-term (reversible), indirect and adverse.
Torfaen Trail	The Torfaen Trail forms a figure of eight loop from Cwmbran, in the south, to Blaenavon, in the north, the majority of which lies within 10km of the Proposed Development Site. The route is illustrated on **Figure 6.14b** and **Viewpoints 10** is located on the route which is assessed in detail in **Appendix 6J.** Theoretical visibility of the hub and blade tips of the Proposed Development is shown for a very localised (~200m) section of the southern loop on the ridgeline at Mynydd Henllys, west of Cwmbran, where the route coincides with the Cistercian Way, Cambrian Way and Taith Torfaen Anytime Challenge. The Proposed Development would form an incremental increase in vertical features, affecting a small part of the overall horizontal field of view towards Mynydd Maen, over a separation distance of 3.1km. The route of the Torfaen Trail does not visit the Iron Age Fort at the summit of Twmbarlwn. Across the northern loop of this figure of eight route, ZTV coverage of turbine blade tips and hubs is illustrated by **Figure 6.14b** within northern suburban areas of Pontypool at a minimum distance of ~5.5km to the northeast. Actual visibility from this portion of the route is judged to be substantially reduced by the intervening built form of the settlement. As the route leaves the northern edge of Pontypool and progresses along the eastern side of the Afon Llwyd valley a consistent area of blade tip ZTV coverage is shown, east of Abersychan and Cwmavon. In reality, views towards the Proposed Development would be frequently screened by the successive areas of coniferous forestry at Freehold Wood, Company's Wood and Lasgarn Wood as well as further areas of mature deciduous and mixed woodland southwest of Mynydd Garnclochdy. Where visible, the Proposed Development would introduce new man-made structures to a narrow part of the visible horizon over a separation distance ranging from ~5.9km to ~10.0km. North of the Proposed Development, further ZTV coverage is shown across a ~1.0km section of the route south of Coety Mountain and for a very minor part (~250m) on the eastern hill slopes of Twyn Du. While the Proposed Development would again form new, man-made vertical features of southerly views, this introduction would be exerted across a limited proportion of the Torfaen Trail in this location and would be experienced in the context of the operation wind turbines at Coed y Gilfach Farm. On the western margins of Pontypool, between Snatchwood and Cwm Ffrwd-oer, hub and blade tip ZTV is illustrated for a portion of the route by **Figures 6.14b**. Views towards the Proposed Development Site from this part of the route would frequently be restricted by intervening mature woodland lining the valley of the Cwm y Glyn and bordering settled areas west of Tranch, enclosing Old Furnace and west of Wainfelin. The coniferous forestry across the northern hill slopes of Mynydd Llwyd was also restrict the visible extents of the Proposed Development. Overall, the proposed turbines would form a minor new feature of south-westerly views towards Mynydd Llwyd. Walkers on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of High value resulting in an overall *High* sensitivity. The magnitude of change would range from *Medium*, across more elevated and exposed sections of the route where less restricted visibility is available, to *Zero* due to the intervening screening influence of landform, vegetation and the built environment for the majority of the northern and eastern route. The resulting level of effect would range from **Major**/ **Moderate and Significant** to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Raven Walk	The Raven Walk comprises a circular walk above the Sirhowy and Ebbw valleys, south of Abercarn.

	An area of ZTV coverage for the route of the Raven Walk, within 10km of the proposed turbines, is illustrated by **Figure 6.14b** as it crosses the open moorland at Mynyddislwyn. Although the western slopes of the Ebbw Valley bordering Abercarn are well-wooded, the Proposed Development would introduce new, prominent vertical features in north-easterly views from Mynyddislwyn over a minimum separation distance of 1.5km. From Mynyddislwyn the route descends into the Sirhowy River valley, at Ynysddu. The Raven Walk then follows the southern, well-wooded slopes of the Sirhowy River Valley; on the same route as the Sirhowy Valley Ridgeway Walk, where no ZTV coverage is indicated by **Figure 6.14b** until the route reaches Twyn Gwyn, south of the Sirhowy Valley Country Park. Between Twyn Gwyn and the summit of Mynydd Machen a ~2.3km section of the Raven Walk would experience channelled north-easterly views through the Ebbw Valley to the Proposed Development; which would form a new vertical, man-made feature; with the potential for a degree of screening to be offered by the well-wooded intervening valley sides. An existing communications mast is located on the summit of Mynydd Machen. A very localised area of ZTV coverage is illustrated by **Figure 6.14b** northwest of the Iron Age Fort at the summit of Twmbarlwn. Actual visibility from this location would be ruled out by the screening influence of extensive coniferous forestry in this location. Walkers on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of High value resulting in an overall *High* sensitivity. The magnitude of change would range from *High*, across localised, elevated and exposed sections of the route where less restrictive visibility is available, to *Zero* for the remainder of the route due to the intervening screening influence of landform, vegetation and the built environment. The resulting level of effect would range from **Major and Significant** to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Celtic Way	The Celtic Way visits prehistoric sites through South Wales and the South West peninsula and is 1,125km in length route that follows public rights of way and minor roads across the hills surrounding the Rhymney Valley. Within 10km of the Proposed Development, a single area of ZTV coverage is illustrated by **Figure 6.14b** for the Celtic Way as it crosses the ridgeline at Mynydd Henllys, west of Cwmbran. From here, the Proposed Development would form an incremental increase in vertical features, affecting a small part of the horizontal field of view towards Mynydd Maen, over a separation distance of 3.7km. The extensive presence of coniferous forestry in close proximity to this part of the route would reduce the overall portion of the route attaining visibility of the proposed turbines. The route of the Celtic Way does not visit the Iron Age Fort at the summit of Twmbarlwn and crosses the path of the Cambrian Way, Cistercian Way and Taith Torfaen Anytime Challenge in this location. The remainder of the Celtic Way would remain unaffected as a result of the Proposed Development. Walkers on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of High value resulting in an overall *High* sensitivity. The magnitude of change would range from *High*, at Mynydd Henllys, to *Zero* for the remainder of the route due to the intervening screening influence of landform. The resulting level of effect would range from **Major and Significant** at Mynydd Henllys to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Sirhowy Valley Ridgeway Walk	The Sirhowy Valley Ridgeway Walk connects the edge of Newport in the south with Tredegar to the north. The route passes within ~4.8km of the closest proposed turbine, in the settlement of Pontllanfraith. The route is illustrated on **Figure 6.14b** and **Viewpoint 12** is located on the route which is assessed in detail in **Appendix 6J.** From its origin in the city of Newport, the first area of ZTV coverage as the route traverses north lies to the south of the Sirhowy Valley Country Park, at Mynydd Machen where the route coincides with the path of the Raven Walk and Rhymney

	Valley Ridgeway Walk. Between the summit of Mynydd Machen, where an existing communications mast is present, and Twyn Gwyn a ~2.3km section of the route would experience channelled north-easterly views through the Ebbw Valley. The Proposed Development would form new vertical, man-made features over a separation distance of 5.6km with potential for a degree of screening to be offered by the well-wooded intervening valley sides. The route then follows the southern side of the Sirhowy Valley through a consistent area of coniferous forestry outside the pattern of theoretical visibility illustrated by **Figure 6.14b** and passing in close proximity to the operational turbines at Bryn Ysgawen Farm and Tyle Crwth**.** A short section (~0.9km) of the route lying south of Wyllie, and east of Pen-y-cwarel, is demonstrated as having hub and blade tip ZTV coverage, ~5.5km southwest of the Proposed Development. In reality, the coniferous forestry flanking the Sirhowy Valley Ridgeway Walk in this location would rule out visibility of the proposed turbines. North of the residential area at Wyllie, the regions of ZTV coverages shown by **Figure 6.14b** for the route, including the closest area of theoretical visibility in Pontllanfraith (~4.8km, west of the proposed turbines) and northeast of Oakdale at The Rock (~5.5km, west), are wholly located within the dense built form of suburban areas where the route is almost continuously flanked by mature vegetation following the course of the Sirhowy River. Further north, less restricted visibility over a separation distance of ~7.4km towards the Proposed Development would be available for a ~1.7km section of the route between the Sirhowy River (north of Markham) and the minor road west of Manmoel. This more inclusive visibility would still be limited to intermittent glimpses of the Proposed Development due to the screening influence of successive layers of intervening mature field boundary vegetation and mature woodland. The operational wind turbine at Pen Y Fan Ganol Farm would be a visible feature of views from this location, occupying the intervening landscape in south-easterly views to the proposed turbines. As the route passes the village of Manmoel, the screening provided by intervening vegetation rules out actual visibility of the Proposed Development, as evidenced by the assessment for **Viewpoint 12**, reported in **Appendix 6J**. Walkers on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of High value resulting in an overall *High* sensitivity. The magnitude of change would range from *High*, for the part of the route at Mynydd Machen, to *Zero* for the remainder of the route due to the intervening screening influence of landform, mature vegetation and the built environment. The resulting level of effect would range from **Major and Significant** for the part of the route at Mynydd Machen to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Monmouthshire Way	The Monmouthshire Way comprises a 121 mile circular route through south east Wales encompassing parts of the Usk Valley, the BBNP and the Blaenavon WHS. The route is illustrated on **Figure 6.14b** and **Viewpoint 11** is located on the route which is assessed in detail in **Appendix 6J.** ZTV coverage across the Monmouthshire Way, within 10km of the Proposed Development, is focussed upon two upland areas northeast and north of the Proposed Development Site. To the northeast, the route leaves the northern edge of Pontypool at Penygarn and crosses Little Mountain on the boundary of the BBNP to the open ridgeline of upland plateau at Mynydd Garn Wen and east of Mynydd Garnclochdy. The route coincides with the path of the Cambrian Way and the Taith Torfaen Anytime Challenge in this location. The primary orientation of elevated views in this location is to the east, over the Usk Valley towards the BBNP. The Proposed Development would be visible to the southwest, across a separation distance of ~7.0km forming new man-made structures affecting a narrow part of the visible horizon (2°). To the north, further ZTV coverage is shown across a small part of the route northeast of Coety Mountain and for a more sustained portion of the route as it crosses the open moorland east of Abertillery between East Bank, Twyn Pentre and Byrgwm. Marginal stretches of the route in this location would benefit from the screening influence of

	small areas of woodland. While the Proposed Development would again form new, man-made vertical features of southerly views this introduction would be experienced in the context of the operation wind turbines at Coed y Gilfach Farm. Walkers on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of High value resulting in an overall *High* sensitivity. The magnitude of change would range from *High*, across more elevated and exposed sections of the route where unobstructed visibility is available, to *Zero* due to the intervening screening influence of landform, vegetation and the built environment. The resulting level of effect would range from **Major and Significant** to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Rhymney Valley Ridgeway Walk	The Rhymney Valley Ridgeway Walk is a circular 44.4km route that follows public rights of way and minor roads across the hills surrounding the Rhymney Valley. The western part of the route lies within 10km of the Proposed Development arcing between Caerphilly to the southeast and Nelson to the northwest, passing~6.6km southeast of the Proposed Development Site at its closest point. The route is illustrated on **Figure 6.14b** and **Viewpoints 9** and **14** are located on the route which are assessed in detail in **Appendix 6J.** A linear spur breaks off from the circular route to the north, crossing Gelligaer Common and onto Cefn y Brithdir and onwards to Rhymney. The majority of this part of the route lies beyond 10km from the Proposed Development and **Viewpoints 15** and **17** are located on the route which is assessed in detail in **Appendix 6J.** No significant visual effects were identified by **Appendix 6J** for this section of the Rhymney Valley Ridgeway Walk. An area of ZTV coverage is illustrated by **Figure 6.14b** south of the Proposed Development where the path of the Rhymney Valley Ridgeway Walk follows the route of the Sirhowy Valley Ridgeway Walk at Mynydd Machen. Between the summit of Mynydd Machen, where an existing communications mast is present, and Twyn Gwyn a ~2.3km section of the route would experience channelled north-easterly views through the Ebbw Valley. The Proposed Development would form new vertical, man-made features over a separation distance of 5.6km with potential for a degree of screening to be offered by the well-wooded intervening valley sides. The route then follows the southern side of the Sirhowy Valley at a higher elevation than that of the Sirhowy Valley Ridgeway Walk, skirting areas of coniferous forestry on the southern side of the Sirhowy Valley. A consistent area of ZTV coverage covering a 5.8km section of the route between Twyn yr Oerfel and the suburban area of Maesycwmmer is demonstrated by **Figure 6.14b**, over a minimum distance of ~6.4km to the southwest of the Proposed Development. **Viewpoint 9** is located on this section of the Rhymney Valley Ridgeway Walk and illustrates the proposed turbines would be visible as new structures on the visible horizon of north-easterly views, affecting approximately 9° of the horizontal FoV. The route passes in close proximity to the operational turbines at Bryn Ysgawen Farm and Tyle Crwth in this location with an operational solar farm and two communications masts also visible north of Mynydd y Lan. After passing through Maesycwmmer, the circuitous section of the route is predominantly located within the built form of the suburban area of Hengoed, which would limit outward easterly visibility towards the Proposed Development. The majority of the linear northern spur of the route lies beyond 10km from the Proposed Development Site. However, a short section passes through the suburban area of Gelligaer, where easterly views are limited by intervening built form and mature vegetation. North of Gelligaer, the Rhymney Valley Ridgeway begins to cross Gelligaer Common where the proposed turbines would be visible as new structures on the visible horizon of easterly views in conjunction with a number of operational wind turbines including Oakdale Business Park, Pen-y-Fan Industrial Estate and Pen-y-Fan Ganol Farm, among others. Walkers on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of High value resulting

	in an overall *High* sensitivity. The magnitude of change would range from *High*, across more elevated and open sections of the route where unobstructed visibility is available, to *Zero* due to the intervening screening influence of landform, vegetation and the built environment. The resulting level of effect would range from **Major and Significant** to None. The nature of these effects would be long-term (reversible), indirect and adverse.

Assessment of visual effects from Sustrans National Cycle Routes

6.12.18 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 National Cycle Network (NCN) routes

Receptor	Assessment
Routes within 10km	
NCN466	Sustrans Route NCN466 links Pontypool in the east with Ebbw Vale in the north via the valley of the Cwm y Glyn and the Ebbw fach Valley, passing ~0.6km to the north of the Proposed Development Site at its closest point. The route is illustrated on **Figure 6.14b.** Theoretical visibility is shown for a ~6.0km section of the route through the valley of the Cwm y Glyn, north of the proposed turbines, between Pontypool and Crumlin as well as for a ~0.2km section of the route north of Cwm and to the east of the Festival Park, where only blade tip theoretical visibility is shown. Between Pontypool and Crumlin, the route traces the A472 and review in the field indicates that the narrow and enclosed terrain of the valley in this location, combined with quite extensive mature roadside vegetation, would screen the majority of views south towards the Proposed Development, perpendicular to the direction of travel. The visible extents of the Proposed Development would, however, increase as the elevation of the route increases to the west, as NCN466 joins the B4471 to travel through Swffryd. Although some filtering of views would occur as a result of intervening built form within Swffryd, the Proposed Development would form prominent new vertical features of southerly views for eastbound cyclists for ~1.0km of the route and over a separation distance of ~1.6km. From Cwm, intervening built form and mature vegetation would suppress visibility of the blade tips of the proposed turbines. Cyclists on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall High sensitivity. The magnitude of change would vary from *High*, for the ~1.0km section through Swffryd, to Zero. The resulting level of effect would range from **Major/ Moderate and Significant** (~1.0km section at Swffryd) to None. The nature of these effects would be long-term (reversible), indirect and adverse.
NCN465	Sustrans Route NCN465 follows the Ebbw Fach Valley from Llanhilleth, in the south, to Bryn Mawr, in the north following a predominantly traffic free route. The starting point of the route in Llanhilleth forms the closest point to the Proposed Development, ~3.6km northwest. The route is illustrated on **Figure 6.14b.** Theoretical visibility is shown for less than ~0.1km of the route in Llanhilleth, ~4.9km northwest of the Proposed Development Site, as well as well as for a ~1.0km section of the route through the Ebbw Fach Valley south of Duffyn

	Park, Blaina. Cyclists travelling in a broadly south-easterly direction, towards the Proposed Development Site, would be subject to screening by extensive coniferous woodland lining the route south of Blaina while mature vegetation and the larger built form of Glandwr Industrial Estate would suppress views in Llanhilleth. Any actual visibility of the Proposed Development would be limited to partial and fleeting views for very short sections of the route in one direction. Cyclists on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall High sensitivity. The magnitude of change would vary from *Very Low* to *Zero*. The resulting level of effect would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and neutral.
NCN492	Sustrans Route NCN492 links Cwmbran in the south with Bryn Mawr in the north via Pontypool and Blaenavon, passing ~4.8km to the east of the Proposed Development Site at its closest point. The route is illustrated on **Figure 6.14b.** Theoretical visibility is shown for a ~1.3km bend of NCN492 west of Cwm Ffrwd-Oer. The route follows the old mineral railway in this location and is subsequently enclosed on both sides by mature vegetation, supressing outward visibility towards the Proposed Development. Cyclists on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall High sensitivity. The magnitude of change would be *Zero*. The resulting level of effect would be None.
NCN47	Sustrans Route NCN47 is a 195km route between Newport and Fishguard and forms part of the Celtic Trail West. Within the 10km Study Area, the route passes between Newport in the southeast and west of Tredomen. The route would pass through the Sirhowy Valley to the southwest of the Proposed Development at ~5.3km at its closest point. The route is illustrated on **Figure 6.14b.** The majority of the route through the Study Area is indicated as having no theoretical visibility of the Proposed Development. Two stretches of ZTV coverage are demonstrated by **Figure 6.14b**, however, at Crosskeys, 4.3km south, and between Gelligroes and Hengoed, 5.4km west. Theoretical visibility in Crosskeys is shown for ~0.5km of NCN47 as it passes through Waunfawr Park and onto Islwyn Road, where the Proposed Development would lie to the north. The Proposed Development is anticipated to comprise a very minor and intermittent addition to channelled and fleeting views to the Ebbw Valley, perpendicular to the route, often screened by intervening built form or mature vegetation. Between Hengoed and Gelligroes, theoretical visibility is shown for eastbound cyclists as the route crosses the Hengoed/ Maesycwmmer Viaduct, in the Rhymney Valley, to follow the route of the A472 to Gelligroes. Visibility of the Proposed Development for these sections of NCN47 would be screened by mature woodland flanking the course of the Rhymney River, intervening mature roadside vegetation and extensive areas of suburban built form. Cyclists on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall High sensitivity. The magnitude of change would vary from *Very Low* to *Zero*. The resulting level of effect would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and neutral.
NCN467	The Sustrans Route NCN467 follows the Sirhowy Valley from Blackwood, in the south, to New Tredegar, in the north. From Blackwood this off-road route

	traces the A4048 and is flanked by mature woodland for the majority of the route through the valley. The starting point of the route in Blackwood forms the closest point to the Proposed Development, ~5.3km west. The route is illustrated on **Figure 6.14b.** Theoretical visibility is shown for a ~1.7km section between The Rock and Argoed, as well as for a ~0.7km section of the route through the Sirhowy Valley north of Markham and the A4048. Cyclists travelling in a broadly south-easterly direction, towards Blackwood and the Proposed Development Site, would predominantly be subject to screening by mature woodland lining the route through the Sirhowy Valley. However, the proposed turbines would be visible intermittently across a ~0.4km part of the route as it passes through Argoed. This visibility would be over a minimum separation distance of ~6.3km at an often oblique angle to the direction of travel in areas where the operational turbines at Oakdale Business Park and Pen-y-Fan Industrial Estate are already present (~1.3km east). Cyclists on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall High sensitivity. The magnitude of change would range from *Low,* where fleeting views of the Proposed Development are available, to *Zero*, for large parts of the route's length where the Proposed Development would not be visible. The resulting level of effect would range from Moderate and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and neutral.
NCN423	Sustrans Route NCN423 links Cwmbran in the west with Ross in the east via the route of the former Regional Route 30 and the Peregrine Path. The route lies ~5.5km east of the Proposed Development at the closest point, starting at Pontrhydyrun in Cwmbran. The route is illustrated on **Figure 6.14b.** Theoretical visibility is shown for a ~1.3km section of the route through the village of Coed-Y-Paen and northwest of the village along the minor road to Llanbadoc, ~9.4km east of the Proposed Development Site. Actual visibility of the Proposed Development would be limited to a ~0.5km section of the route east of Llandegfedd Reservoir. In this location the proposed turbines would form distant new features of the visible horizon for cyclists travelling southwest. Mature roadside vegetation as well as intervening field boundary hedgerows and mature woodlands would frequently supress visibility reducing visibility of the Proposed Development to intermittent and fleeting glimpses. Cyclists on the route have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall High sensitivity. The magnitude of change would vary from *Very Low*, for the ~0.5km section east of Llandegfedd Reservoir, to Zero. The resulting level of effect would range from Moderate/ Minor and Not Significant (~0.5km east of Llandegfedd Reservoir) to None. The nature of these effects would be long-term (reversible), indirect and adverse.

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

6.12.19 The assessment of visual effects from historic parks and gardens, golf courses, country parks and open access land is set out in **Table 6.25**. The Viewpoint Analysis presented in **Appendix 6J** identified no significant visual effects beyond a distance of 9.4km from the proposed turbines. As a consequence, the assessment of visual effects from the local and reginal recreational areas has been restricted to those which lie within a 10km buffer of the proposed turbines. The location of the historic parks and gardens, golf courses, country parks and open access land within 10km of the proposed turbines and in relation to the blade tip and hub height ZTVs is shown in **Figure 6.15b**.

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

Receptor	Assessment
Historic Parks and Gardens within 10km	
Maes Manor Hotel	**Figure 6.15b** indicates that there is theoretical hub height and blade tip visibility of up to four turbines from this receptor. However, the property's gardens and immediate curtilage are characterised by dense, mature woodland and field boundary trees. The key view is orientated to the south, while the Proposed Development is located to the east. The semi-circular and walled gardens of Maes Manor are both bordered by mature woodland to the east, including the avenue of mature trees that line the hotel's driveway, resulting in extensive screening of views towards the Proposed Development. Further scattered tree planting and field boundary trees to the southeast of the property, including north of Hoel Tynewydd and west of the A4048, are predicted to reinforce this foreshortening of views towards the Proposed Development Site which is located 6.0km to the east. Users of the park have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to High value resulting in an overall *High* sensitivity. The magnitude of change would range from *Very Low* to *Zero*. The resulting level of effect would range from Moderate/ Minor and Not Significant to None. The nature of the effects experienced by users of the park would be long-term (reversible), indirect and neutral.
Pontypool Park	**Figure 6.15b** indicates that there is theoretical blade tip visibility of one turbine from the northern part of the park. However, extensive mature tree cover throughout the park and on the southern/ western perimeters as well as intervening built form would restrict views of the Proposed Development, located ~5.0km to the southwest. Users of the park have a High susceptibility to change and the views in the direction of the Proposed Development 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 None.
Golf Courses within 10km	
Blackwood Golf Club	The receptor is illustrated on **Figure 6.15b** and is located on higher ground to the east of the Sirhowy River Valley and north of the settlement of Blackwood, ~5.8km west of the Proposed Development. With reference to the ZTV at **Figure 6.15b,** the majority of the golf course, including the club house, lies within the ZTV with visibility of up to four hubs and up to four tips illustrated for the central and western parts of the golf course, which lie at a slightly higher elevation. Easterly views towards the Proposed Development Site would be partly restricted by intervening tree cover on the eastern and southern boundaries of the course as well as intervening built form. Users of the golf course have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall *Medium* sensitivity. The magnitude of change would range from *Medium* to *Zero*. The resulting level of effect would range from **Moderate and Significant** (given the extent of visibility in these partly restricted views) to None. The nature of these effects would be long-term (reversible), indirect and adverse.

Bryn Meadows Golf Hotel	The receptor is illustrated on **Figure 6.15b** and is located on higher ground to the west of the Sirhowy Valley and southeast of the settlement of Maesycwmmer, ~6.2km west of the Proposed Development. With reference to the ZTV at **Figure 6.15b,** the majority of the golf course including the club house, lies within the blade tip ZTV with visibility of up to four turbines illustrated. The eastern half of the course is more elevated and consequently is shown as having theoretical visibility of up to four hubs. Easterly views towards the Proposed Development Site would be largely screened from the lower lying westerly part of the course, while views from the eastern golf course would be partly restricted by intervening tree cover on the eastern boundary of the course as well as mature internal structural woodland. Users of the golf course have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall *Medium* sensitivity. The magnitude of change would range from *Low* to *Zero*. The resulting level of effect would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
Pontypool Golf Club	The receptor is illustrated on **Figure 6.15b** and is located on higher ground north of the settlement of Pontypool, on the foothills of Little Mountain and on the boundary of the BBNP ~6.3km northeast of the Proposed Development. With reference to the ZTV at **Figure 6.15b,** the northern parts of the golf course, including the club house, lie within the ZTV with visibility of up to one hub and up to two blade tips illustrated across this more elevated land. South-westerly views towards the Proposed Development Site would be restricted by intervening tree cover on the southern boundary of the course and mature internal structural woodland as well as the landform and coniferous forestry at Coed Parciau. Users of the golf course have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall *Medium* sensitivity. The magnitude of change would range from *Low* to *Zero*. The resulting level of effect would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.
Bargoed Golf Club	The receptor is illustrated on **Figure 6.15b** and is located on higher ground to the west of the settlement of Bargoed and the Rhymney River valley, ~9.5km west of the Proposed Development. With reference to the ZTV at **Figure 6.15b,** the majority of the golf course including the club house, lies within the ZTV with visibility of up to four hubs and up to four tips illustrated for the elevated central part of the golf course. Easterly views towards the Proposed Development Site would be partly restricted by intervening tree cover on the eastern boundary of the course and mature internal structural woodland as well as the built form of Bargoed. Users of the golf course have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall *Medium* sensitivity. The magnitude of change would range from *Low* to *Zero*. The resulting level of effect would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and neutral to adverse.
Country Parks within 10km	
Pen-y-Fan Pond Country Park	**Figure 6.15b** indicates that much of the country park is located within the ZTV, however mature woodland on the eastern boundary of the Country Park and to the south, bordering Pen-Y-Fan Industrial Estate, would largely reduce visibility of the Proposed Development, over ~4.8km northwest. **Viewpoint 7** is located

	in Pen-y-Fan Pond Country Park and is assessed in detail in **Appendix 6J.** No significant visual effects were identified by **Appendix 6J** for **Viewpoint 7**. South-easterly views to the Proposed Development from the core of the Country Park would be heavily filtered by intervening mature vegetation, reducing the visibility of the proposed turbines to up to two hubs and up to four blade tips. Views of the Proposed Development from this location would be experienced in the context of existing overhead transmission lines and lattice towers, within the same horizontal field of view, as well as the operational wind turbines at Pen-y-Fan Industrial Estate and Oakdale Business Park which lie to the southwest. Users of the park have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall *High* sensitivity. The magnitude of change would range from *Low* to *Zero*. The resulting level of effect would range from Moderate and Not Significant to None given the restricted nature of views in the presence of existing vertical, man-made vertical features in close proximity to the park. The nature of the effects experienced by users of the park would be long-term (reversible), indirect and adverse.
Sirhowy Valley Country Park	**Figure 6.15b** indicates that large parts of the park along the base and lower southern hill slopes of the Sirhowy Valley would lie outwith theoretical visibility coverage for the Proposed Development. However, areas of ZTV coverage are shown 5.2km to the south, south of Crosskeys, and 6.7km to the southwest, on across the northern slopes of Mynydd Bach and Mynydd y Grug. **Viewpoint 9** is located in close proximity to the western boundary of the Sirhowy Valley Country Park and is assessed in detail in **Appendix 6J**. To the southwest, the Proposed Development would form new vertical features of north-easterly views from more elevated parts of the park, to the south of the Sirhowy Valley. Although the Sirhowy Valley Ridgeway Walk crosses the lower reaches of the well-wooded valley in this location, the Rhymney Valley Ridgeway Walk follows a more elevated route through the park skirting areas of coniferous forestry to east. Views from the park would be over a minimum distance of ~6.7km to the southwest and the proposed turbines would be visible as new structures on the visible horizon of north-easterly views, affecting approximately 9° of the horizontal FoV. The western part of the park lies in close proximity to the operational turbines at Bryn Ysgawen Farm and Tyle Crwth in this location with an operational solar farm and two communications masts also visible components of views towards the Proposed Development site, north of Mynydd y Lan. From the south, south of Crosskeys, the Proposed Development would form a prominent new vertical, man-made feature of channelled north-easterly views through the Ebbw Valley, with the potential for a degree of screening to be offered by the well-wooded intervening valley sides. Users of the park have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall *High* sensitivity. The magnitude of change would range from *Medium* to *Zero*. The resulting level of effect would range from **Major**/ **Moderate and Significant** to None due to the presence of man-made vertical features in close proximity to the park. The nature of the effects experienced by users of the park would be long-term (reversible), indirect and adverse.
Parc Coetir Bargod Country Park	**Figure 6.15b** indicates that large parts of the park, within the settlement of Bargoed in the Rhymney Valley, would lie outwith theoretical visibility coverage for the Proposed Development. However, a marginal area of ZTV coverage is shown for the open space between the A4049 (Pengam Road) and the A469 (Angel Way), 7.8km northwest of the Proposed Development.

	This area of ZTV coverage within the Country Park is located on the eastern hill slopes of the Rhymney Valley, where the landform falls in elevation to the west. The Proposed Development lies to the east. This landform profile, in combination with the screening influence provided to the east of the park by mature boundary vegetation, intervening built form such as the larger industrial units at St Margaret's Park and the well-wooded character of the hill slopes east of the settlement of Bargoed, is predicted to largely exclude visibility of the Proposed Development from a very small, marginal area of the park. Users of the park have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall *High* sensitivity. The magnitude of change would range from *Very Low* to *Zero*. The resulting level of effect would range from Moderate/ Minor and Not Significant to None. The nature of the effects experienced by users of the park would be long-term (reversible), indirect and neutral.
Parc Penalta Country Park	**Figure 6.15b** indicates that large parts of the park, to the west of the settlement of Hengoed, would lie outwith theoretical visibility coverage for the Proposed Development. However, the eastern boundary of the park, including 'The Observatory' is shown as falling within ZTV coverage 9.2km west of the Proposed Development. This eastern part of the park bordering Penalta Road is well-wooded, with extensive mature woodland and field boundary vegetation present. Less obstructed and expansive views over the well-settled landscape are available from the summit of Penallta, where 'The Observatory' is located. Although the Proposed Development would form a new distant vertical feature of easterly views from the most elevated parts of the park, this introduction would be experienced in the context of a horizontal field of view (easterly) where operational wind turbine development is present at Bryn Ysgawen Farm and Tyle Crwth and over a separation distance in excess of 9.0km. Users of the park have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium value resulting in an overall *High* sensitivity. The magnitude of change would range from *Low* to *Zero*. The resulting level of effect would range from Moderate and Not Significant to None given the restricted extent of views in the presence of existing vertical, man-made vertical features in closer proximity to the park. The nature of the effects experienced by users of the park would be long-term (reversible), indirect and adverse.
Open Access Land within 10km	
Open Access land and PRoW within 5km of proposed turbines	**Figure 6.15b** shows a large proportion of the upland landscape to the north, east and south of the Proposed Development Site, above the settled valleys is designated as open access land and also contains numerous PRoW. High points where the Proposed Development would be most prominent include open access land and PRoW network to the north at Mynydd Llanhilleth and Cefn y Crib, in close proximity to **Viewpoint 6** (**Appendix 6J**), as well as to the open plateau of Mynyddislwyn and elevated ridgeline at Twmbarlwn and Mynydd Henllys (**Viewpoint 5**, **Appendix 6J**). Unrestricted views would also be available from Mynydd Maen and Mynydd Llwyd, including their upper slopes to the east of the Proposed Development Site (**Viewpoint 3**, **Appendix 6J**). The distribution of local PRoW within 5km of the proposed turbines is shown in **Figure 6.15b** and extends in all directions around the Proposed Development Site with a number of PRoW also crossing through the Proposed Development Site. Many of the local PRoW cross elevated land across the western side of the Ebbw Valley, to the west, including across Maes-yr Haf, Coed Trinant and Mynyddislwyn as well as the lower slopes of the valley of the Cwm y Glyn to

	north. The western slopes of Mynydd Llwyd and southern slopes of Mynydd Llwyd (**Viewpoint 3**, **Appendix 6J**), as well as the ridgeline of Mynydd Henllys, to the south, also host various PRoW (**Viewpoint 5**, **Appendix 6J**). To the north, a network of routes covers the smaller-scale, historic agricultural landscape at St Illtyd (**Viewpoint 6**, **Appendix 6J**). Users of the open access land and local PRoW have a High susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to High value resulting in an overall *High* sensitivity. The magnitude of change would range from *High* to *Zero*, increasing to Very High for users of the PRoW which cross the Proposed Development Site. The resulting level of effect would range from **Major and Significant** to None. The nature of the effects experienced by users of the open access land and local PRoW would be long-term (reversible), indirect and adverse.
Open Access land between 5km-10km of the Proposed Development Site	**Figure 6.15b** indicates that a large proportion of the upland landscape to the north, northwest and south of the Proposed Development Site is designated as open access land, parts of which fall within the ZTV coverage of the Proposed Development. Further areas of designated open access land to the northeast, east and south are illustrated as having no theoretical visibility of the proposed turbines. A detailed assessment from individual viewpoints referenced below is at **Appendix 6J**. Users of open access land have a High susceptibility to change and the views in the direction of the Proposed Development 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 Pant-y-Ffawydden (Viewpoint 9), Waun Wen/ Gwastad/ Byrgwm (Viewpoint 10), Little Mountain (Viewpoint 11), Mynydd Garnclochdy (Viewpoint 13), Gelligaer Common (Viewpoint 15), Coety Mountain, Mynydd James and Cefn yr Arail. At these locations, the magnitude of change would range from *Medium* to *Zero*. The resulting level of effect would range from **Major/ Moderate and Significant** to None. The nature of the effects experienced by users of open access land would be long-term (reversible), indirect and adverse.

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 6.26.**

Table 6.26 Assessment of visual effects from transport routes (A and B roads)

Receptor	Assessment
Within 10km	
A472	The A472 crosses the 10km Study Area from Little Mill in the east to Nelson in the west, linked via a short section of the A4042 northeast of Pontypool which lies outwith the ZTV coverage for the Proposed Development. With reference to the ZTVs in **Figures 6.2-6.6**, theoretical visibility of up to one hub and up to one blade tip is illustrated for a ~4.8km section of the road between Pontypool and Newbridge, at a minimum distance of ~0.6km north of the Proposed Development Site. A further ~0.5km section of theoretical visibility of up to one blade tip is also illustrated south of Swffryd. Review in the field indicates that the narrow and enclosed terrain of the valley in this location, combined with quite extensive mature roadside vegetation, would screen

	the majority of views south towards the Proposed Development, perpendicular to the direction of travel. Travelling eastbound between Springfield (Pontllanfraith) and Newbridge, at the roundabout with the A467, theoretical visibility of up to four hubs and up to four blade tips is illustrated for a ~2.8km section of the route. In reality, views towards the Proposed Development would be heavily screened by mature roadside vegetation which channels views in the direction of travel and restricts broader visibility across the landscape. More open views of the Proposed Development would be available for ~1.0km section of the A472 as it approaches the roundabout with A467 where four hubs and four blade tips would be visible on the horizon of Twyn-y-ganol, at a minimum distance of ~1.7km to the west. Further parts of the route are illustrated by **Figures 6.2-6.6** as having theoretical visibility of up to four hubs and up to four blade tips: for a ~2.0km section between Maesycwmmer and Gelligaer lying 5.6km to the west and over a ~1.9km stretch between Wern-isaf (west of Tredomen) and Ystrad Mynach, 8.5km to the west. However, views for eastbound road users in these locations would be screened by intervening mature roadside vegetation and extensive areas of suburban built form. Actual visibility would be limited to a ~0.4km portion of the route west of Tredomen where up to two hubs and up to two blade tips would be seen fleetingly and intermittently in the direction of travel as distant features, ~9.6km to the east. 9.2km to the northeast of the Proposed Development, a 1.0km section of the A472 at Little Mill is illustrated as having ZTV coverage of up to one hub and up to one blade tip. However, actual visibility is expected to be ruled out by the extensive intervening screening provided by mature woodland and built development including the Mamhilad Park Estate and Usk Vale Park. Road users on this route have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to Low value resulting in an overall Medium sensitivity. The magnitude of change would vary from *High*, for the ~1.0km section of the route lying immediately west of the proposed turbines in Newbridge, to *Zero*, for large parts of the route's length where the Proposed Development would not be visible. The resulting level of effect would range from **Major/ Moderate and Significant** (~1.0km section at Newbridge) to None. The nature of these effects would be long-term (reversible), indirect and adverse.
B4471	The B4471 links Aberbeeg, in the north, with Swffryd to the south. The route follows the eastern side of the Ebbw Valley and is typically flanked by mature woodland or built development. With reference to the ZTVs in **Figures 6.2-6.6**, theoretical visibility of up to four hubs and up to four blade tips is illustrated for a ~1.3km section of the road as it passes through Swffryd, north of the A472 and 1.6km northeast of the Proposed Development. Although some filtering of views would occur as a result of intervening built form within Swffryd, the Proposed Development would form prominent new vertical features of southerly views on the opposite side of the valley. The visible extents of the Proposed Development would, however, reduce as the elevation of the route reduces to the east, at the junction with the A472. A further ~0.75km section of theoretical visibility of up to one hub and up to one blade tip is also illustrated further north in the Ebbw Valley at Llanhilleth, 3.7km northwest of the Proposed Development. The route is flanked by scrub/ naturally regenerating vegetation, to the east, and built form, to the west, as it passes through Llanhilleth. Intervening mature vegatation is also present across the eastern hill slopes of the Ebbw Valley at Craig Swffryd. These screening influence would exclude visibility for southbound users of the B4471 in Llanhilleth. Road users on this route have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to Low value resulting in an overall Medium sensitivity. The magnitude of change would vary from *High*, for the ~1.3km section at Swffryd, to Zero, for the remainder of the route where the Proposed Development would not be visible. The resulting level of effect would range from

	Major/ Moderate and Significant (~1.3km section at Swffryd) to None. The nature of these effects would be long-term (reversible), indirect and adverse.
A467	The A467 traverses the 10km Study Area on a broadly north-to-south alignment, following the Ebbw Valley through south Wales and passing within ~1.2km of the Proposed Development at the closest point, on the northern edge of Abercarn. With reference to the ZTVs in **Figures 6.2-6.6**, theoretical visibility of up to four hubs and up to four blade tips is illustrated for a ~1.6km section of the road through Abercarn, between West End and High Meadow with ~1.2km of the Proposed Development. Actual visibility would be much more restricted, primarily by the intervening screening influence of the built form of Abercarn and dense mature vegetation bordering the road through the base of the Ebbw Valley. Where visibility is available, this would be limited to short, glimpsed views of blade tips at an oblique angle to the direction of travel for northbound road users. North of Abercarn, two further short sections of theoretical visibility are illustrated by **Figures 6.2-6.6**. The first comprises a ~150m section of the A467 east of Newbridge Leisure Centre, ~1.8km west of the Proposed Development Site, where theoretical visibility of up to 3 hubs and 3 blade tips is shown. Review in the field indicates that actual visibility would be limited to the blade tips of T1, perpendicular to the direction of travel and subject to the screening influence of intervening coniferous woodland. Secondly, a ~0.4km section of the A467 is illustrated as having theoretical visibility of up to 1 hub and 1 blade tip in Crumlin, north of Crumlin Rugby Football Club and ~2.6km west of the Proposed Development Site. Similarly, actual visibility of the proposed turbines in this location would be restricted by intervening landform and mature vegetation, limiting views to blade tip visibility of T4. More distant visibility of up to one hub and up to one blade tip of the Proposed Development is demonstrated by **Figures 6.2-6.6** for a ~0.3km section of the road lying 4.3km northwest at Glandwr and a 1.3km stretch south of Blaina located 8.8km northwest. Actual visibility of the proposed turbines would be screened in these locations by a combination of mature roadside vegetation, built development and landform. To the south shorter margins of ZTV coverage of up to one hub and up to one blade tip are shown for ~0.5km of the dual carriageway south of Cross Keys and for ~0.3km of the A467 as it enters Crosskeys itself. Visibility towards the Proposed Development Site for road users travelling westbound and northbound would be supressed by mature roadside vegetation. Road users on this route have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to Low value resulting in an overall Medium sensitivity. The magnitude of change for the A467 would range from *Very Low* to *Zero.* The resulting level of effect would range from Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
B4591	The B4591 flanks the eastern margins of the A467 through the Ebbw Valley. The visual effects upon this receptor would reflect those detailed above for the A467. Road users on this route have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to Low value resulting in an overall Medium sensitivity. The magnitude of change for the B4591 would range from *Very Low* to *Zero.* The resulting level of effect would range from Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
B4251	The B4251 follows the Sirhowy Valley north from Crosskeys, in the south, to Gelligroes continuing north, having crossed the Sirhowy Valley, to Oakdale, Pen-y-Fan Industrial Estate and then south to Croespenmaen and Crumlin. With reference to the ZTVs in **Figures 6.2-6.6**, theoretical visibility of up to four hubs and up to four blade tips is illustrated for a ~3.3km section of the road between Gelligroes and Blackwood as the B4251 crosses the suburban areas of Penllwyn, Pontllanfraith and Blackwood, at a minimum distance of ~5.1km west of the Proposed Development Site.

	Actual visibility of the Proposed Development from this section of the road would be substantially reduced by the screening influence of intervening built development and reduced to partial and intermittent visibility, perpendicular to the direction of travel, from a ~0.9km section of the B4251 as it passes the open space on Blackwood Road. Further north, another area of ZTV coverage is illustrated by **Figures 6.2-6.6** starting at Islwyn High School, where the operational turbines at Oakdale Business Park and Pen-y-Fan Industrial Estate are visible from the road. Between Islwyn High School and the roundabout at Pen-y-Fan Industrial Estate, the mature vegetation flanking the B4251 would screen views to the Proposed Development, to the southeast. South of the Pen-y-Fan Industrial Estate roundabout, mature roadside vegetation and the large-scale buildings of the Industrial Estate would continue to screen views towards the Proposed Development Site. As the B4251 proceeds south to approach the junction with Kendon Road, Croespenmaen, short glimpses of the Proposed Development would be seen to the southeast for a ~0.2km stretch of the route, fleetingly and intermittently, for road users travelling towards Croespenmaen and Crumlin. As the route turns east to follow Kendon Road through Croespenmaen, this intermittent and partial visibility of the Proposed Development, frequently limited to up to four blade tips, would continue for a ~0.5km section of Kendon Road, 3.6km northwest of the proposed turbines. The dense, mature vegetation lining the margins of the route between Kendon and Treowen would then screen any outward visibility for road users. Short-lived south-easterly visibility of up to one hub and up to one blade tip would be available, perpendicular to the direction of travel, as the B4251 enters Treowen, 2.4km from the Proposed Development Site. Road users on this route have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to Low value resulting in an overall Medium sensitivity. The magnitude of change would vary from *Low*, for the short sections where partial visibility of the Proposed Development would be available, to Zero, for the remainder of the route where the Proposed Development would not be visible. The resulting level of effect would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
A4048	The A4048 crosses the 10km Study Area between Pontllanfraith, in the south, following the Sirhowy Valley to the north to the settlement of Tredegar. With reference to the ZTVs in **Figures 6.2-6.6**, theoretical visibility of up to four hubs and up to four blade tips is illustrated across two stretches of the route. The first area of ZTV coverage is shown for ~1.8km of the A4048 between the roundabout with Newbridge Road in Pontllanfraith and the roundabout with Oakdale Terrace east of the Woodfieldside area of Blackwood, 3.8km west of the Proposed Development. Review in the field has shown that the majority of the route in this area is lined by mature vegetation which limits outward visibility, channelling views in the direction of travel. This screening influence is reinforced by interveing landform at the entrance to Amlosgfa Crematorium as well as built development and road signage. A short section of oblique visibility of up to four hubs and up to four blade tips would be available for less than ~100m of the road, eastbound, as it approaches the roundabout with Newbridge Road and is slightly elevated by the bridge over Newbridge Industrial Estate. A further area of theoretical visibility is illustrated by **Figures 6.2-6.6** for ~2.8km of the A4048 between The Rock and Markham, passing through Argoed. Road users travelling in a broadly south-easterly direction, towards the Proposed Development Site, would predominantly be subject to screening by mature roadside vegetation lining the route through the Sirhowy Valley. However, the proposed turbines would be visible intermittently across a ~0.4km section between Markham and Argoed as well as for another ~0.4km part of the route as it passes through Argoed. This visibility would be over a minimum separation distance of ~6.3km at an often oblique angle to the direction of travel in areas where the operational turbines at Oakdale Business Park and Pen-y-Fan Industrial Estate are already present (~1.3km east). Road users on this route have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to Low value

	resulting in an overall *Medium* sensitivity. The magnitude of change would vary from *Low*, where fleeting views of the Proposed Development are available, to *Zero*, for large parts of the route's length where the Proposed Development would not be visible. The resulting level of effect would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
B4254	The B4254 crosses the western part of the 10km Study Area linking Blackwood and Pontllanfraith in east with Nelson and Trelewis in the west via Pengam, Penpedairheol and Gelligaer. **Viewpoint 14** is located on the route which is assessed in detail in **Appendix 6J.** With reference to the ZTVs in **Figures 6.2-6.6**, theoretical visibility of up to four hubs and up to four blade tips is illustrated for two sections of the route. The first area of ZTV coverage comprises a ~1.6km stretch lying ~5.0km west of the Proposed Development between the roundabout with the A4048 in Pontllanfraith, at Twynfilkins Farm, and the roundabout south of Blackwood. This portion of the B4254 encompasses parts of Libanus Road, Highfield Way and a short section of Bryn Road. A second stretch of theoretical visibility is illustrated by **Figures 6.2-6.6** between Glan-Y-Nant and Tophill Farm, west of Gelligaer, taking in parts of Pengam Road, Church Road and Gelligaer Road ~8km northwest of the proposed turbines. Between Blackwood and Pontllanfraith, mature roadside vegetation would suppress visibility of the Proposed Development for the western section of the indicated theoretical visibility at Bryn Road and the western end of Highfields Way. From the junction with Y Cedrwydden, the Proposed Development would be set on the visible horizon across Pontllanfraith to the landform of Mynydd Maen in the direction of travel of eastbound road users. This visibility would continue for a ~1.0km section if Highfield Way as it progresses east to Libanus Road and the junction with High Street, 5.3km west. Actual visibility would be intermittent and often partially screened by intervening built form and mature vegetation flanking the road and experienced in the context of existing telegraph poles and other vertical features including street lighting. No views expected east of High Street for the route. Further west, between Glan-Y-Nant and Tophill Farm, there would intermittent visibility of the Proposed Development at an oblique angle to the direction of travel for eastbound road users west of Gelligaer and entering the western edge of the settlement, 9.9km west. As the route passes through Gelligaer, actual visibility of the Proposed Development would be restricted to fleeting and intermittent glimpses through mature roadside vegetation. Angled visibility of slightly longer duration would be available east of Penpedairheol, 9.1km west, before the built form Penpedairheol and subsequent mature roadside vegetation east of the town suppress views of the proposed turbines. Road users on this route have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to Low value resulting in an overall Medium sensitivity. The magnitude of change would vary from *Low* to *Zero*. The resulting level of effect would range from Moderate/ Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
A4046	The A4046 connects the centre of Aberbeeg with the northern edge of Ebbw Vale. Between Aberbeeg and Cwm the route is bordered by mature woodland of mixed coniferous and deciduous species on steep slopes that would frequently screen views of the Proposed Development. With reference to the ZTVs in **Figures 6.2-6.6**, theoretical visibility of up to four hubs and up to four blade tips is illustrated for a ~2.6km section of the road for southbound users between Llan-dafal and Aberbeeg, at a minimum distance of ~5.0km northwest of the Proposed Development Site. The mature vegetation lining this section of the route would all but suppress any visibility of the Proposed Development barring a 0.2km section of the route equidistant between Llan-dafal and Aberbeeg; centred on the junction at the entrance to Aberbeeg Enduro Track. For this short section of the A4046, up to three hubs and up to three blade tips would be visible new features of south-easterly views along the Ebbw Valley, 6.5km northwest of the Proposed Development Site. The western margin of the route is not bordered by vegetation in this location as an existing overhead

	transmission line crosses overhead with the supporting lattice tower forming a prominent existing feature of the horizontal field of view towards the proposed turbines for south-easterly bound road users. Road users on this route have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to Low value resulting in an overall Medium sensitivity. The magnitude of change would vary from *Very Low*, for the ~0.2km section between Llan-dafal and Aberbeeg, to *Zero*, for the remainder of the route's length where the Proposed Development would not be visible. The resulting level of effect would range from Minor and Not Significant (~0.2km section between Llan-dafal and Aberbeeg) to None. The nature of these effects would be long-term (reversible), indirect and adverse.
A4049	The A4049 follows the eastern side of the Rhymney Valley between Bryn, in the south, and New Tredegar in the north. With reference to the ZTVs in **Figures 6.2-6.6**, theoretical visibility of up to four hubs and up to four blade tips is illustrated for a ~0.75km section of the road for eastbound road users between the roundabout with the A472, south of Bryn, and the corner south of the Crown Estate where the route turns north to follow the Rhymney Valley to New Tredegar. Actual visibility of the Proposed Development would be largely supressed in this location by mature roadside vegetation bordering the route to the south and intervening built form. South of Lon Rhymni, for ~0.1km of the A4049, and for a ~0.3km section approaching the roundabout with the A472, up to four hubs and up to four blade tips would be apparent on the visible horizon 6.3km to the west. This visibility would represent a minor alteration to a small part of the horizon, experienced fleetingly and perpendicular to the direction of travel as the route approaches the roundabout. Road users on this route have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to Low value resulting in an overall Medium sensitivity. The magnitude of change would vary from *Very Low* to *Zero*. The resulting level of effect would range from Minor and Not Significant to None. The nature of these effects would be long-term (reversible), indirect and adverse.
A4043	The 4043 crosses the 10km Study Area from Cwmavon, in the north, to Pontypool, in the south, following the course of the Afon Llwyd valley. With reference to the ZTVs in **Figures 6.2-6.6**, theoretical visibility of up to one blade tip is illustrated for two short sections of Cwmavon Road comprising a 0.2km section east of Abersychan school and a 0.3km as the route leaves the northern edge of the settlement. Review in the field indicates that the intervening built form of Abersychan, combined with mature roadside vegetation, would suppress visibility of the single blade tip of the proposed turbines across both sections of the route. Road users on this route have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to Low value resulting in an overall Medium sensitivity. The magnitude of change in this location would be *Zero*. The resulting level of effect would be None.
B4246	The B4246 crosses the north-eastern part of the 10km Study Area between Abersychan and Blaenavon before traversing the northern foothills of The Blorenge at Govilon to join the A465 south of Abergavenny. With reference to the ZTVs in **Figures 6.2-6.6**, theoretical visibility of up to one blade tip is illustrated for a ~1.9km section of the road for southbound users between Gallowsgreen and Varteg, at a minimum distance of ~7.3km northeast of the Proposed Development Site. Actual visibility for southbound road users of the B4246 would be screened for the majority of this indicated area of theoretical visibility by intervening localised landform, built form including at Salisbury Terrace and scattered areas of regenerating vegetation on the eastern foothills of Mynydd Farteg Fach. Actual visibility would be limited to a ~0.3km portion of the route on the northern edge of Varteg where the single blade tip would be seen fleetingly and intermittently in the direction of travel as a minor and distant feature, ~7.6km to the southwest.

Road users on this route have a Medium susceptibility to change and the views in the direction of the Proposed Development Site are assessed to be of Medium to Low value resulting in an overall *Medium* sensitivity. The magnitude of change would vary from *Very Low*, for the ~0.3km section at Varteg, to *Zero*, for the remainder of the route's length where the Proposed Development would not be visible. The resulting level of effect would range from Minor and Not Significant (~0.3km section at Varteg) to None. The nature of these effects would be long-term (reversible), indirect and neutral.

6.13 Assessment of cumulative (inter-project) effects

6.13.1 A preliminary cumulative effects assessment (CEA) has been undertaken for the Proposed Development 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 Proposed Development 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 schemes, within an extended 23km radius cumulative Study Area. The wind energy developments that are included are shown on **Figure 6.7** 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 four turbines of the Proposed Development 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 turbines. In particular, the cumulative assessment considers the potential for the introduction of the Proposed Development 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 the proposed turbines present that would otherwise not be significant if the proposed turbines were not present.

6.13.4 The landscape effects resulting from the operation of Proposed Development alone are described in **Appendices 6B to 6H** and **Sections 6.9 to 6.11**. The visual effects resulting from the operation of the Proposed Development alone are described in **Appendix 6J** and **Section 6.12**. Significant landscape and visual effects are summarised in **Section 6.14** in **Table 6.27** and are restricted to a range of receptors within 10 km of the Proposed Development.

6.13.5 As the level of effect experienced in any cumulative scenario cannot be less than that predicted in relation to the Proposed Development alone, it is established that the visual receptors listed in **Table 6.27** would necessarily experience significant visual effects as a result of the incremental effect of the introduction of the proposed turbines 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 the Proposed Development alone, may experience significant effects as a result of the incremental contribution of the proposed turbines. Where a landscape or visual receptor was predicted to experience a Minor level of effect in relation to the baseline scenario, 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 the Proposed Development alone.

6.13.6 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.

6.13.7 As described in **Section 6.4** of this chapter and set out in **Table 6.6**, the assessment considers 21 wind energy developments within the 23km 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 July 2023. 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 the construction period of the Proposed Development.

6.13.8 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 operational period because it is unlikely that all the proposed wind energy developments will become operational. In addition, whilst new wind energy developments will become operational others will be decommissioned, re-powered or extended.

6.13.9 As specified in the methodology set out in **Section 1.5** of **Appendix 6J**, 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.

6.13.10 With regard to potential cumulative effects upon landscape designations and landscape character (in the form of the local landscape designations and the BBNP), consideration has been given to the potential for wind turbines to generate the following types of cumulative effect:

6.13.11 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;

6.13.12 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

6.13.13 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.

6.13.14 **Figures 6.16a-e** illustrate the ZTVs for the wind energy developments within the cumulative Study Area that are most likely to contribute to significant effects with the Proposed Development, 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 the proposed turbines.

6.13.15 The CLVIA has been aided by the production of additional 90º cumulative wireframes from the same 24 viewpoints that have been used in the visual assessment which include full 360º rotation where relevant. The figures show wireframes for each quadrant of the compass to allow an appreciation of the other wind energy developments that could be evident to visual receptors at or close to the viewpoint location. In these views the Proposed Development might be visible in the same 90° field of views as other turbines i.e., simultaneous views, or in other directions up to a potential 360° field of view i.e., successive views. Where visibility of wind turbines would be restricted by intervening buildings or planting this is recorded in the Viewpoint Assessment at **Appendix 6J**. Viewpoint locations are shown in **Figures 6.2-6.6**. The cumulative wireframes are shown in **Figures 6.16a-e.**

Scenario One: Cumulative Landscape Effects

6.13.16 In Scenario One, the Proposed Development 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.

6.13.17 **Section 6.11** and **Table 6.21** sets out the landscape effects upon local landscape designations (**Figure 6.13a-b**) predicted to result from the operation of the Proposed Development 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 NH2.3 Abercarn Visually Important Local Landscape (VILL) and parts of three nearby Special Landscape Areas (SLAs): NH1.6 Mynyddislwyn, ENV2.1 St Illtyd Plateau and Ebbw Eastern Sides and ENV2.4 Mynydd Carn-y-Cefn and Cefn yr Arail.

6.13.18 Two operational wind energy schemes are located up to ~5km from the Proposed Development Site (i.e., turbines at Pen-y-Fan Industrial Estate and Oakdale Business Park). 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 the proposed turbines, and significant effects would arise in relation to the Proposed Development alone.

6.13.19 The fact that local landscape designations cover the majority of elevated land above the settled valleys within the Study Area, including land occupied by operational wind turbines; including at Bryn Ysgawen Farm, Tyle Crwth, Cruglwyn, Gelli-Wen Farm and Pen Bryn Oer; means this degree of landscape change would be in accordance with the pattern of landscape change within and immediately adjacent to local landscape designations, in order to contribute towards Wales renewable energy targets.

6.13.20 In Scenario One a reduced magnitude of landscape change has been assessed to occur as a result of the operation of the Proposed Development upon nine additional SLAs where Moderate or Moderate/ Minor and Not Significant effects have been recorded, as described in **Section 6.11** and **Table 6.21**. These SLAs are: C2/4 South West Uplands, ENV2.2 Eastern Ridge and Mynydd James, C2/8 Western Uplands, NH1.4 North Caerphilly, C2/7 Afon Lwyd Valley, NH1.3 Mynydd Eglwysilan, NH1.2 Gelligaer Common, ENV2.6 Cefn Manmoel and ENV2.3 Cwm Tyleri and Cwm Celyn.

6.13.21 With reference to **Figure 6.14** these local landscape designations lie between ~1.8km and ~8.6km from of the Proposed Development Site. Of these designations, significant landscape effects are predicted to already occur as a result of operational windfarms (Bryn Ysgawen Farm, Tyle Crwth and Cruglwyn) within two of the SLAs (NH1.4 North Caerphilly and ENV2.6 Cefn Manmoel) as a result of the SLA hosting or lying in close proximity to an operational wind farm. From the remaining SLA designations, the addition of the Proposed Development would not raise the overall magnitude of turbines present to a level where any Significant landscape effects would occur when considering the presence of all baseline wind farm schemes (both operational and consented).

6.13.22 With reference to **Figure 6.7**, five operational and one consented wind energy schemes lie within ~5km to ~10km of the Proposed Development. These schemes already have, or would have, a defining role upon landscape character at a distance of more than 5km from the Proposed Development Site. As set out in the baseline LVIA there is clear landform and land-use separation between these baseline schemes and the Proposed Development by virtue of major transport corridors and urban development in the intervening valleys. This separation results in a low or very low magnitude of indirect effects upon landscape character that the Proposed Development would contribute to, beyond ~5km.

6.13.23 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 Proposed Development on local landscape designations beyond ~5km would not be significant. The established overall pattern of intervening distance and topography between operational wind farms comprises a separation of ~2 to ~4km between Pen-y-Fan Industrial Estate/ Oakdale Business Park, Pen Y Fan Ganol Farm, Gelli-wen Farm and Cruglwyn would be reflected in the location of the Proposed Development.

6.13.24 With regard to potential cumulative effects upon the BBNP, Viewpoint 24 (**Figure 6.42**) illustrates the weakness of the visual effects pathway between the designation and the Proposed Development. Viewpoint 11 (**Figure 6.29**), Viewpoint 13 (**Figure 6.31**) and Viewpoint 20 (**Figure 6.38**) as well as Viewpoint 24 (**Figure 6.42** illustrate the minor incremental effect that the geographically limited presence of the Proposed Development would have upon this nationally designated landscape. Consequently, under Scenario One the introduction of proposed turbines would not result in any significant cumulative landscape effects upon the BBNP.

Scenario One: Cumulative Visual Effects

6.13.25 In the majority of cases, the potential for visibility of multiple wind energy schemes from settlements is limited by surrounding built development and tree cover, however where multiple schemes are potentially visible from the same location in parts of Abercarn, Newbridge and Blackwood (as demonstrated from Viewpoints 1, 2, 4, and 8) the visibility of operational and consented wind energy schemes would have a modest visual impact (not significant) and it is the addition of the Proposed Development in its own right that would result in a significant visual effect.

6.13.26 Locations where there is the potential for visibility of multiple wind farms and the Proposed Development include some recreational routes and destinations located on elevated land. Review of the cumulative visualisations from all viewpoints indicates that in some locations operational wind turbines from more than one development already have a significant visual effect and the addition of the proposed turbines would have a non-significant contribution to the overall magnitude of turbine presence, as illustrated at Pen-y-Fan Pond Country Park in Viewpoint 7 (**Figure 6.25d**) and the Rhymney Valley Ridgeway Walk in Viewpoint 9 (**Figure 6.27e**).

6.13.27 Overall, due to the significant separation and topographical changes between the Proposed Development and the other wind energy schemes, it is assessed that there is no potential for the addition of the Proposed Development to result in significant visual effects where these would not arise in relation to either the Proposed Development or one or more of the other wind energy schemes alone.

Scenario Two: Cumulative Landscape Effects

6.13.28 This section considers the incremental landscape effects that may arise from the introduction of the Proposed Development 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 the Proposed Development to result in the expansion of any significant effect upon landscape designations as a result of an interaction/s with proposed wind energy schemes.

6.13.29 The nearest additional wind energy scheme that would be introduced into this scenario is the scoping request scheme at Mynydd Maen, approximately 0.9km to the east of the Proposed Development. The introduction of this 16 turbine wind farm (with turbines up to 149.9m to tip) would have significant effects within the NH2.3 Abercarn VILL, the designation which also hosts the Proposed Development. While the Proposed Development would reinforce the significant effects within the NH2.3 Abercarn VILL as a result of the Mynydd Maen scoping response scheme, the proposed turbine would increase the extent of the designation subject to direct and significant landscape effects as a result of wind turbine development.

6.13.30 Consequently, there would be a significant cumulative landscape effect upon the NH2.3 Abercarn VILL as a result of the Proposed Development and the scoping request scheme at Mynydd Maen in that the wind energy developments could be perceived as becoming a characteristic of the designation but would not alter its valued attributes i.e., a 'landscape with wind farms'. This change to the baseline characteristics would also be experienced in the context of the existing large-scale overhead electricity transmission line crossing the centre of the VILL, which is included as landscape quality/ feature of the VILL: "*Visual detractors (vertical elements including pylons) on the open ridgeline have reduced the Visual and Sensory evaluations for both*" [32].

6.13.31 By virtue of proximity, the visual effects pathway between the Mynydd Maen scoping response scheme and the Proposed Development is strong, particularly to the north, west and southern-most part of the cumulative Study Area. The Mynydd Maen scoping response scheme's more easterly positioning, across more elevated land at the summits of Mynydd Llwyd and Mynydd Maen as well as across Mynydd Maen's southerly slopes, results in a broader ZTV coverage across the Avon Llwyd valley. The introduction of the Proposed Development would reinforce the significant effects upon the parts of three nearby SLAs: NH1.6 Mynyddislwyn, ENV2.1 St Illtyd Plateau and Ebbw Eastern Sides and ENV2.4 Mynydd Carn-y-Cefn and Cefn yr Arail as a result of the scoping response scheme at Mynydd Maen, 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 (**Figure 6.16a**).

6.13.32 The planning application schemes at Mynydd Llanhilleth and Mynydd Carn-y-Cefn as well as the scoping request scheme at Abertillery are located ~2.8km, ~6.0km and ~6.7km north of the Proposed Development, respectively. With reference to the ZTVs illustrated in **Figures 6.16b-c**, if all three schemes were to become operational they would result in significant landscape effects within the NH2.3 Abercarn VILL, which would 'host' the Proposed Development. The Mynydd Llanhilleth, Mynydd Carn-y-Cefn and Abertillery schemes would also result in significant landscape effects of their own 'host' landscape

designations and adjoining local landscape designations including ENV2.2 Eastern Ridge and Mynydd James, ENV2.1 St Illtyd Plateau and Ebbw Eastern Sides, ENV2.4 Mynydd Carn-y-Cefn and Cefn yr Arail, C2/8 Western Uplands, NH1.3 Mynydd Eglwysilan and NH1.6 Mynyddislwyn. Consequently, the addition of the Proposed Development to this scenario would only reinforce, but not extend the significant landscape character effects within the local landscape designations established as a result of other planning application and scoping request schemes, with reference to the cumulative wirelines at Viewpoint 3 (**Figure 6.21**), Viewpoint 6 (**Figure 6.24**), Viewpoint 10 (**Figure 6.28**), Viewpoint 12 (**Figure 6.30**) and Viewpoint 16 (**Figure 6.34**) taken from within, and in close proximity to, the local landscape designations.

6.13.33 The planning application schemes at Twyn Hywel and Manmoel are located ~10.2km and ~10.6km southwest, within the NH1.3 Mynydd Eglwysilan and ENV2.6 Manmoel SLAs, respectively. With reference to the ZTVs at **Figure 6.16c and 6.16e** and the cumulative wirelines at Viewpoint 12 (**Figure 6.30**) and Viewpoint 14 (**Figure 6.32**) taken from within, or in close proximity to, the local landscape designations, the addition of the Proposed Development to this scenario would have only a very modest contribution to the overall magnitude of landscape change within the NH1.3 Mynydd Eglwysilan SLA that would be significant as a result of the Twyn Hywel Wind Farm. The Proposed Development would be largely screened from view from within the ENV2.6 Manmoel SLA with the significant landscape effects within this designation occurring as a result of the planning application scheme at Mynydd Carn-y-Cefn.

6.13.34 The planning application scheme at Pen March is located ~19.6km to the northwest of the Proposed Development in close proximity to the boundary of the BBNP. With reference to the ZTV at **Figure 6.16e**, and the cumulative wirelines at Viewpoint 11 (**Figure 6.29**), Viewpoint 13 (**Figure 6.31**), Viewpoint 20 (**Figure 6.38**) and Viewpoint 24 (**Figure 6.42**) taken from within the National Park, the addition of the Proposed Development to this scenario would have only a modest contribution to the overall magnitude of landscape change experienced within the BBNP that would be significant as a result of the scoping request schemes at Mynydd Maen and Abertillery as well as the planning applications schemes at Mynydd Llanhilleth, Pen March and Manmoel.

6.13.35 At separation distances in excess of 14km, the relationship between the other planning application schemes included in this scenario at Bryntail Farm (14.5km, southwest) and Mynydd y Glyn (19.8km, southwest) would be too weak to give rise to any significant cumulative landscape effects with the Proposed Development.

Scenario Two: Cumulative Visual Effects

6.13.36 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 Proposed Development may give rise to a Moderate (not significant) or Slight/Moderate level of visual effect. The additional wind energy schemes included in Scenario Two that are likely to have the greatest contribution to significant effects are located within ~10km of the Proposed Development. These schemes are the planning application scheme at Mynydd Llanhilleth and the scoping request scheme at Mynydd Maen, both of which are located within ~5km of the proposed turbines, as well as the planning application schemes at Mynydd Carn-y-Cefn, Twyn Hywel and Manmoel as well as the scoping request scheme at Abertillery, all of which are located within ~10.6km of the Proposed Development Site. The more distant planning application schemes at Bryntail Farm, Pen March and Mynydd Y Glyn have a limited contribution. As in Scenario One, the locations with the greatest potential for significant cumulative effects would be situated between the Proposed Development and one of the additional wind farms.

6.13.37 The visual receptors that are predicted to experience Moderate or Moderate/ Minor and Not Significant levels of visual effect in relation to the Proposed Development alone include parts of the following 15 settlements: Crosskeys/ Pontywaun, Pontypool, Abersychan, Argoed, Abertillery, Markham, Hengoed/ Cefn Hargoed, Ystrad Mynach, Gelligaer/ Penybryn/ Penpedairheol, Bargoed/ Abergoed and Little Mill. 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 the Proposed Development. 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 proposed turbines would, in all cases, slightly reinforce an already significant visual effect.

6.13.38 Parts of settlements that may experience significant visual effects from other proposed developments comprise parts of Abertillery, Pontllanfraith, Pontypool and Abersychan with potential views of the planning application schemes at Mynydd Llanhilleth and Mynydd Carn-y-Cefn as well as the scoping request schemes as Mynydd Maen and Abertillery. Parts of Ebbw Vale, Tredegar, Rassau and Merthyr Tydfil may be significantly affected by views of the planning application scheme at Manmoel. A number of settlements in the south of the Study Area, from parts of Gelligaer/ Penybryn/ Penpedairheol, Ystrad Mynach, Nelson, Treharris, Llanbradach, Caerphilly and Pontypridd, would have potentially significant views of the planning application scheme at Twyn Hywel. 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.

6.13.39 The recreational visual receptors that are predicted to experience Moderate or Moderate/ Minor and Not Significant levels of visual effect in relation to the Proposed Development alone would include the following visual receptors: parts of national cycle routes including NCN465, NCN492, NCN47, NCN467, NCN423; recreational open space such as the Historic Parks and Gardens (RHPG) at Pontypool Park and Maes Manor Hotel; the Country Parks at Pen-y-Fan Pond, Parc Coetir Bargod and Parc Penalta; as well as the Bryn Meadows Golf Hotel, Pontypool Golf Club and Bargoed Golf Club. The magnitude of change to views available to these receptors as a result of the other proposed wind energy schemes is frequently significant and the addition of the Proposed Development would typically slightly reinforce an already significant visual effect.

6.13.40 The recreational receptors that would potentially experience significant effects from the planning application schemes at Mynydd Llanhilleth and/ or Mynyd Carn-y-Cefn or the scoping request scheme at Mynydd Maen comprise parts of Bargoed and Pontypool Golf Clubs, parts of Pen-y-Fan Pond Country Park and stretches of NCN465. Views from the Parc Penalta RHPG and Bryn Meadows Golf Hotel have the potential to be significantly affected by the planning application scheme at Twyn Hywel, while the views from NCN492, NCN423 as well as the RHPG at Pontypool Park have the potential to be significantly affected by the scoping request scheme at Mynydd Maen. Visual receptors using NCN47 could be significantly affected by the planning application schemes at Twyn Hywel and/ or Bryntail Farm and views available from NCN467 could be significantly affected by the planning application schemes at Mynydd Carn-y-Cefn and Manmoel. No significant effects from the addition of any other proposed wind energy schemes under Scenario Two are predicted from the Maes Manor RHPG or the Parc Coetir Bargod Country Park.

6.13.41 Visual receptors on the A467, B4251, A4048 and B4254 could be significantly affected by the planning application schemes at Mynydd Llanhilleth, Mynydd Carn-y-Cefn and/ or Manmoel as well as the scoping request scheme at Abertillery. Views from the A4043 at Abersychan and B4246, at Varteg, could be subject to significant effects as a result of the planning application scheme at Mynydd Carn-y-Cefn and/ or the scoping request schemes

at Mynydd Maen and Abertillery. Views from the A4046 have the potential to be significantly affected by the planning application scheme at Manmoel while views from the A4048 could be significantly affected by the presence of the planning application scheme at Mynydd Llanhilleth and/ or the scoping request scheme at Abertillery. The low/ very low magnitude of change resulting from the addition of the Proposed Development would slightly reinforce these already significant visual effects.

6.13.42 The assessment above has illustrated the nature of the interaction between the Proposed Development 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 the Proposed Development into this scenario would not result in significant visual effects where these would not arise in relation to either the proposed turbines or one of the other wind farm schemes alone. The cumulative assessment will be updated for final ES submission to account for changes in the cumulative environment, including the reduction of turbines numbers in schemes including Mynydd Maen.

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 6.27.** The magnitude of change and level of effect recorded in **Table 6.27** 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 Proposed Development.

Table 6.27 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 to Zero	**Major/ Moderate and Significant** to None	ZTVs demonstrate that the hubs and blades of the proposed turbines would be visible from a large proportion of the VSAA at a minimum distance of ~5.75km. There are no operational wind turbines within the VSAA. The presence of the proposed turbines and associated movement would be a new vertical influence within the VSAA, which exhibits an attractive sense of place and tranquillity. The Proposed Development would contrast, where visible, with the small-scale field pattern and undisturbed agricultural characteristics of the VSAA. The magnitude of change would range from Medium for the parts of the VSAA within the ZTVs to Zero for the parts of the VSAA outside the ZTVs.
BLNGWVS226 St. Illtyd	High	High to Zero	**Major and Significant** to None	ZTVs demonstrate that the hubs and blades of the proposed turbines would be visible from a large proportion of the northern and southern VSAA at a minimum distance of ~1.75km. There are no operational wind turbines within the VSAA. The presence of the proposed turbines and associated movement would be a large-scale vertical influence within southerly views from the VSAA, which exhibits a strong sense of place, remoteness and tranquillity. The Proposed Development would contrast with the small-scale field pattern and ancient countryside of the VSAA. The magnitude of change would range from High for the parts of the VSAA within the ZTVs to Zero for the parts of the VSAA outside the ZTVs.
BLNGWVS688 Mynydd Bedwellte	High	High to Medium to Zero	**Major to Major/ Moderate and Significant** to None	ZTVs demonstrate that the hubs and blades of the proposed turbines would be visible from a large proportion of the VSAA at a minimum distance of ~3.75km. The operational wind turbines at Coed y Gilfach Farm are located within the VSAA, south of Mynydd Coety. The presence of the proposed turbines and associated movement would be a large-scale, albeit incremental, vertical influence within the VSAA, which exhibits high levels of remoteness and tranquillity. The open moorland of the VSAA is devoid of settlement and has a wild and uncluttered character that contrasts with the settled valleys below, generating a strong sense

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				of place and important remote quality which would be weakened by the introduction of the Proposed Development. The magnitude of change would range from High for the parts of the VSAA within the ZTVs and closest to the Proposed Development, reducing to Medium with increased separation distance and within closer proximity to the operational turbines with the VSAA and to Zero for the parts of the VSAA outside the ZTVs.
CYNONVS214 Mynydd Llwyd and Mynydd Maen	Medium	High to Zero	**Major/ Moderate and Significant** to None	The Proposed Development would be located within this VSAA with ZTVs demonstrating that the hubs and blades of the proposed turbines would be visible from the majority of the aspect area. There are no operational wind turbines within the VSAA. The presence of the proposed turbines and associated movement would be a new man-made vertical influence within the VSAA, which exhibits moderate levels of remoteness and tranquillity. The VSAA comprises an upland area of heath and grassland which has a feeling of elevation and exposure in places and allows views to adjoining upland and urban areas. Coniferous forestry is a dominant land use while existing vertical features such as the large-scale overhead electricity transmission line crossing Mynydd Maen and the communications mast on Mynydd Llwyd are existing visual detractors that diminish the overall value of the VSAA. The magnitude of change would range from High for the parts of the VSAA within the ZTVs to Zero for the parts of the VSAA outside the ZTVs.
CYNONVS372 Mynydd Maen	Medium to Low	High to Zero	**Major/ Moderate and Significant** to None	The Proposed Development would be located within this VSAA with ZTVs demonstrating that the hubs and blades of the proposed turbines would be visible from a large proportion of the northern and central parts of the aspect area. More intermittent theoretical visibility is also shown for the southern part of the VSAA at the Iron Age Fort at Twmbarlwn and along the ridgeline at Mynydd Henllys. There are no operational wind turbines within the VSAA. The presence of the proposed turbines and associated movement would be a new man-made vertical influence within the VSAA, which exhibits moderate levels of remoteness and tranquillity. The VSAA comprises upland areas of exposed ridges, where a feeling of elevation is generated, and more sheltered valleys. A mosaic of coniferous and mixed woodland cloths the valleys while views are achieved from more elevated parts across these wooded valleys to adjoining upland areas and settled valleys. The large-scale overhead electricity

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				transmission line crossing Mynydd Maen and the communications mast on Mynydd Llwyd are existing vertical features of the VSAA that disrupt the composition of the landscape and diminish the overall value. The magnitude of change would range from High for the parts of the VSAA within the ZTVs to Zero for the parts of the VSAA outside the ZTVs.
TRFNVS024 Unnamed	Medium	Medium to Low to Zero	**Moderate and Significant** to Moderate/ Minor and Not Significant to None	ZTVs demonstrate that the hubs and blades of the proposed turbines would be visible from a large proportion of the three separate parts of the VSAA lying north of the Proposed Development at a minimum distance of ~2.0km. There are no operational wind turbines within the VSAA. The presence of the proposed turbines and associated movement would be a new vertical influence within closer parts of the VSAA, which exhibits a strong sense of place and high levels tranquillity and remoteness. The strong sense of place exhibited by the VSAA is a result of the attractive and panoramic upland views available and the distinctive characteristics of open, exposed and undulating rough grassland at elevation. The magnitude of change would range from Medium for the parts of the VSAA within the ZTVs and closest to the Proposed Development, reducing to Low with increased separation distance and to Zero for the parts of the VSAA outside the ZTVs.
LANDMAP – Historic Landscape Aspect Areas				
BLNGWHL044 HAA 44 St Illtyd Fieldscape	High	Medium to Zero	**Major/ Moderate and Significant** to None	ZTVs demonstrate that the hubs and blades of the proposed turbines would be visible from a moderate proportion of the HLAA at a minimum distance of ~2.0km. There are no existing wind turbines within the HLAA, however there are operational wind turbines south of the HLAA with Oakdale Business Park and Pen-Y-Fan Industrial Estate the closest at ~3.0km. There would be no direct effects upon any of the attributes for which this landscape is valued, including the well-preserved fieldscape and medieval monuments. The presence of the proposed turbines and associated movement would be a new indirect man-made vertical influence on the HLAA, where there is limited evidence of industrial activity, and would have an indirect adverse effect upon the appreciation of the surviving and well-preserved field pattern and cluster of medieval monuments in the vicinity of Llanhilleth.

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				The magnitude of change would range from Medium for the parts of the HLAA within the ZTVs to Zero for the parts of the HLAA outside the ZTVs.
CYNONHL558 Cwm Dows and Cwm Philkins	Medium	Medium to Zero	**Moderate and Significant** to None	ZTVs demonstrate that the hubs and blades of the proposed turbines would be visible from within a large proportion of the HLAA at a minimum distance of ~2.5km. There are no existing wind turbines within the HLAA, however there are operational wind turbines north of the HLAA with Oakdale Business Park and Pen-Y-Fan Industrial Estate the closest at ~1.75km. There would be no direct effects upon any of the attributes for which this landscape is valued, including the well-preserved and rare examples of an irregular rural upland fieldscape. The presence of the proposed turbines and associated movement would be a new indirect man-made vertical influence on the HLAA, where there is limited evidence of intrusion by industrial activity and would have an indirect adverse effect upon the appreciation of the surviving field pattern. The magnitude of change would range from Low for the parts of the HLAA within the ZTVs reducing to Zero for the parts of the HLAA outside the ZTVs. In this instance, the Moderate level of effect is considered significant due to proximity to the Proposed Development.
CYNONHL724 Nant Gawni and Hafod-fach	Medium to Low	High to Zero	**Major/ Moderate and Significant** to None	The Proposed Development would be located within this HLAA with ZTVs demonstrating that the hubs and blades of the proposed turbines would be visible from the majority of the aspect area. There are no operational wind turbines within the HLAA. The HLAA comprises a large enclosed agricultural landscape with some areas of ancient and semi-natural woodland. The remaining woodland within the HLAA is principally modern plantation forestry. Post industrialisation of the area, the HLAA was heavily influenced by a number of infrequent but large quarry workings located within a broader landscape pattern of fieldscapes punctuated by forestry and woodland. Although, the archaeological record for this HLAA is limited, the presence of the proposed turbines and associated movement would introduce a new, and direct, man-made vertical influence upon the predominant landscape pattern of irregular fields, scattered farmsteads and forestry/ woodland which has remained largely unchanged since the 20th century. Some contemporary development is present within the southern HLAA where several large areas of quarrying are present and the western HLAA where residential development has

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				slightly diminished the overall coherence. The magnitude of change would range from High for the parts of the HLAA within the ZTVs reducing to Zero for the parts of the HLAA outside the ZTVs.
TRFNHL017 HL017 Waun-wen and Mynydd Llanhilleth	Medium	Medium to Low to Zero	**Moderate and Significant** to Moderate/ Minor and Not Significant to None	ZTVs demonstrate that the hubs and blades of the proposed turbines would be visible from within a small proportion of the southern HLAA at a minimum distance of ~1.75km. There are no existing wind turbines within the HLAA. There would be no direct effects upon any of the attributes for which this landscape is valued including the complex 19th–20th century industrial landscape and well-preserved structural remains lying west of Abersychan. The presence of the proposed turbines and associated movement would be a new indirect man-made vertical influence on the HLAA, which would remain intact, and would have an indirect adverse effect upon the appreciation of the post-medieval industrial landscape encompassing hillside enclosure and scattered farmsteads. The magnitude of change would range from Medium in the closest parts of the HLAA to Low for the remainder of the HLAA within the ZTVs to Zero for the parts of the HLAA outside the ZTVs. In this instance, the Moderate level of effect is considered significant due to proximity to the Proposed Development.
TRFNHL018 HL018 Glyn Trosnant and Hafod-yr-Ynys	Medium	Medium to Zero	**Moderate and Significant** to None	ZTVs demonstrate that the hubs and blades of the proposed turbines would be visible from within a moderate proportion of the western and northern HLAA at a minimum distance of ~0.75km. There are no existing wind turbines within the HLAA, however there are operational wind turbines west of the HLAA with Pen-Y-Fan Industrial Estate the closest at ~3.75km. There would be no direct effects upon any of the attributes for which this landscape is valued including the irregular agricultural fieldscape on Cefn-crib. The scale and presence of the proposed turbines and associated movement would be a new indirect man-made vertical influence on the HLAA and would have an indirect adverse effect upon the appreciation of the irregular agricultural field pattern and well-preserved remains of mineral extraction sites within the HLAA, which would remain intact. The magnitude of change would range from Low for the parts of the HLAA within the ZTVs to Zero for the parts of the HLAA outside the ZTVs. In this instance, the Moderate level of effect is considered significant due to proximity to the Proposed Development.

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
Local Landscape Designations				
NH2.3 Abercarn VILL	Medium	Medium to Zero	**Moderate and Significant** to None	As this VILL would host all four proposed turbines; as well as the proposed access track, substation and other ancillary infrastructure; it would experience direct effects as a result of the Proposed Development. The operational turbines are expected to be dominant landscape elements across hill summits and ridgelines within the VILL. The well-wooded and enclosed valleys would experience less visual intrusion with a large proportion of them lying outside the ZTV as well as benefitting from the screening influence of widespread forestry. The open hill slopes north of Risca are also outside the ZTV coverage for the Proposed Development. Although the Proposed Development would be sited within the agricultural land northeast of Abercarn, the direct loss of arable/ pastoral land would be limited to the footprint of the proposed turbines and associated ancillary development. Where permanent habitat loss would occur, this would be offset by mitigation planting elsewhere within the Proposed Development Site. Where possible, existing access points, roads and tracks have been utilised to minimise vegetation loss while providing suitable access. The loss of any habitat, such as field boundary hedgerows, would be temporary with any impacted habitats reinstated following completion of the construction phase. Mitigation planting is also proposed within the lower parts of the Proposed Development Site and around access points, aligning with one of the key policy and management issues for this VILL which states: "*maximise opportunities for planting broadleaf species to soften edges*"[32] (**Chapter 4: Project Description, section 4.9**). Despite this, the Proposed Development would introduce a new vertical human influence to the broad panoramas experienced from more elevated parts of the VILL (Viewpoint 3, **Figure 6.21** and Viewpoint 5, **Figure 6.23**). Although the introduction of the Proposed Development would be experienced in the context of existing large-scale vertical man-made features, most notably from Viewpoint 3 (**Figure 6.21**), the principally un-industrialised nature of the skyline profile of the VILL viewed from the adjoining settlements of Abercarn (Viewpoint 1, **Figure 6.19**) and Pantside (Viewpoint 2, **Figure 6.20**) would be altered by the Proposed Development.

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
NH1.6 Mynynddislwyn	Medium	Medium to Zero	**Moderate and Significant** to None	There would be no direct landscape effects arising from the Proposed Development. Reference to **Figure 6.13b** indicates a large part of the western SLA coincides with the ZTV, west of Abercarn, at a minimum distance of 1.5km. At these distances, the scale of the proposed turbines could give rise to a high to medium magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. The Proposed Development would not significantly alter the landscape qualities and features of the SLA, which is recognised for "*the importance of open moorland features in this part of the Borough and the quality of its associated landscape habitats*". However, the proximity of the SLA to the Proposed Development could result in attributable effects upon the management and development control objective aiming to prevent the "*area becoming too cluttered with incongruous vertical elements, including pylons and turbines to protect the vulnerable open integrity of the area*"[8, 31]. The Proposed Development would introduce an incremental increase of prominent vertical elements within north-easterly views from the SLA at a minimum separation distance of 1.5km. This would be experienced in the context of the existing large-scale overhead electricity transmission line crossing the Proposed Development Site. The remaining key management and development control objectives would remain unaffected by the Proposed Development.
ENV2.1 St. Illtyd Plateau and Ebbw Eastern Sides	High	High to Zero	**Major and Significant** to None	There would be no direct landscape effects arising from the Proposed Development. Reference to **Figure 6.13b** indicates a large part of the SLA coincides with the ZTV, across the core of the SLA at St. Illtyd and east of Llanhilleth as well as north of Swffryd, at a minimum distance of 1.75km. At these distances, the scale of the proposed turbines could give rise to a high to medium magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. Viewpoint 6 (**Figure 6.24**) reflects the type of visibility from the central, part of the SLA, south of St. Illtyd. From this location, the proposed turbines would appear as new vertical features of panoramic southerly views from the SLA, affecting 22° of the horizontal field of view over a minimum separation distance of 1.75km. Although operational wind turbine development is visible to the west; including the

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				schemes at Pen-y-Fan Industrial Estate, Oakdale Business Park, Pen-y-Fan Ganol Farm and Gelli-wen Farm; the prominence of the Proposed Development in southerly views 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.
ENV2.4 Mynydd Carn-y-Cefn and Cefn yr Arail	High	Medium to Zero	**Major/ Moderate and Significant** to None	There would be no direct landscape effects arising from the Proposed Development. Reference to **Figure 6.13b** indicates a large part of the southern SLA coincides with the ZTV within 10km of the Proposed Development, across the forked ridgeline west of Abertillery at Cefn yr Arail, at a minimum distance of 5.25km. At these distances, the scale of the proposed turbines could give rise to a medium magnitude of visual change, which taken in isolation, could lead to significant visual effects. However, this assessment is focused on the landscape qualities and features and integrity of the SLA. From the ridgeline at Cefn yr Arail, the Proposed Development would appear as new vertical features of panoramic south-easterly views from the SLA, affecting part of the horizontal field of view across the St. Illtyd Plateau towards the ridgeline of Mynydd Llwyd, Mynydd Maen and Mynydd Twyn-glas. The prominence of the Proposed Development in southerly views would contrast with the small-scale field pattern characterising the adjoining St. Illtyd Plateau and Ebbw Eastern Sides SLA and would diminish the level of remoteness and tranquillity appreciated from the SLA, a primary landscape quality of this landscape. This visibility of the Proposed Development would, however, be experienced in the context of existing vertical features of the view, including various existing overhead transmission lines and operational wind turbines. The summit of Mynydd Carn-y-Cefn is located beyond 10km from the Proposed Development (11.6km, northwest). The Viewpoint Analysis presented in **Appendix 6J** identified no significant visual effects from this location where the Proposed Development would result in an incremental increase in the presence of man-made vertical features within south-easterly views.
Visual Receptors: Settlements				

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
Residents in the settlement of Abercarn (Llanfach, Persondy, Celynen, High Meadow)	High	High to Zero	**Major and Significant** to None	The settlement occupies the lower slopes and base of the Ebbw Valley, to the southwest of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) the northern part of the settlement is illustrated as having theoretical visibility of the Proposed Development, most notably at High Meadow, Celynen, Persondy, Llanfach and West End at a distance of 0.8km at the closest point. **Viewpoint 1** is located within the High Meadow area of the settlement and is assessed in detail in **Appendix 6J**. The majority of properties in the eastern part of High Meadow as well as Celynen, Persondy and Llanfach lie on the eastern flanking hills of the Ebbw Valley and therefore have a primary orientation to the southwest, northwest or southeast; with the Proposed Development located to the northeast. Visibility towards the Proposed Development Site would also be restricted by intervening screening by other residences or rising topography to the northeast. For north facing properties in Llanfach and on the western side of the Ebbw Valley, including the western part of High Meadow and the northern part of West End, a number of dwellings are orientated to the northeast towards the Proposed Development. Where visibility in these areas is not restricted by intervening built form, up to two hubs and three blade tips would be visible beyond the wooded slopes of Craig Glan-sion and Twyn-y-ganol.
Residents in the settlement of Swffryd/ Hafodyrynys	High	High to Zero	Locally **Major and Significant** in northern Swffryd, reducing to **Major/ Moderate and Significant** for remaining parts of Swffryd and Hafodyrynys.	The linear settlements of Swffryd and Hafodyrynys follow the northern flanking hills and base of the valley of the Cwm y Glyn, north of the Proposed Development Site and the A472. With reference to the ZTVs (**Figures 6.2-6.6**), a large part of the settlements are illustrated as having theoretical visibility of the Proposed Development, most notably across more elevated parts of Swffryd, north of the B4471, at a distance of 1.4km at the closest point. The majority of properties in Hafodyrynys, on the valley floor of the Cwm y Glyn, lie within ZTV coverage, with **Figures 6.2-6.6** illustrating theoretical visibility of up to one hub and one blade tip. However, actual visibility towards the Proposed Development Site would be restricted by extensive mature forestry occupying the intervening southern flanking valley slopes while the primary orientation of a number of properties is to the north, with the Proposed Development located to the south. Where visibility towards the Proposed Development is attained from Hafodyrynys, up to one hub and one blade tip would be visible to the south.

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				The majority of the settlement at Swffryd is shown as having theoretical visibility of the Proposed Development. The pattern of this visibility broadly mirrors that of the properties in Hafodyrynys for those dwellings located across the valley floor and lower hill slopes, although a greater number of properties in Swffryd have a primary orientation to the south, in the direction of the Proposed Development. However, the northern and eastern parts of Swffryd ascend higher up the northern side of the valley, achieving more inclusive visibility of the Proposed Development with up to four hubs and up to four blade tips visible from properties north of the B4471. A number of dwellings in this part of Swffryd have a primary orientation to the south, however, the orientation of properties transitions to a westerly direction as the settlement follows the terrain of the valley side. Although visibility towards the Proposed Development Site would often be restricted by intervening screening by other residences and the forestry lying on the opposing valley sides, the proposed turbines would frequently form a new feature of unobstructed views.
Residents in the settlement of Newbridge/ Trecelyn (Crumlin, Pantside, Treowen)	High	High to Zero	**Major and Significant** to None	The settlement occupies the flanking eastern and western slopes as well as the base of the Ebbw Valley, to the west of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) the eastern and western parts of the settlement are illustrated as having theoretical visibility of the Proposed Development, most notably on the facing valley sides at Treowen, on the ridgeline at Pantside and across the western portion of the settlement following the A472 towards Pontllanfraith. The residential area at Pantside forms is the closest area of theoretical visibility, 1.5km west of the Proposed Development. **Viewpoint 2** is located within Pantside and **Viewpoint 4** lies within the Treowen area of the settlement. Both are assessed in detail in **Appendix 6J**. The majority of properties within the settlement are shown as falling within the ZTV illustrated by **Figures 6.2-6.6** with up to four hubs and up to four blade tips visible. A small proportion of residences within the southern part of Pantside are primarily orientated to the southwest, with the Proposed Development lying to the west. The orientation of properties within the western part of the settlement, along the A472, is varied and some areas of intervening mature woodland are present. The magnitude of change in these areas would frequently change along a single street and even within a discrete group of dwellings, such as a small cul-de-sac, as a result of variances in orientation and the degree of screening provided by other built form.

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				From more elevated parts of the settlement; away from the valley floor on the facing slopes of the Ebbw Valley, at Treowen, and the valley of the Nant Gawni, at Pantside; less obstructed visibility of the Proposed Development would be achieved. Where visibility in these areas is not restricted by intervening built form, up to four hubs and up to four blade tips would be visible along the ridgeline at Twyn-y-ganol forming a prominent new feature of westerly views.
Residents in the settlement of Pantygasseg	High	High to Zero	**Major and Significant** to None	Pantygasseg is a small, linear settlement to the north of the Proposed Development Site occupying a narrow ridgeline of terrain formed by the valleys of the Cwm y Glyn, to the south, and the Nant Ffrwd-oer, to the north. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of the settlement is illustrated as having theoretical visibility of up to three hubs and up to three blade tips at a minimum distance of 1.9km. The primary orientation of the majority of residences on Bush Terrace and at New House is to the southeast. The Proposed Development is located to the southwest. Although some intervening vegetation is present along Tranch Road, dwellings in the western part of Pantygasseg would experience largely unobstructed, albeit angled, visibility towards the proposed turbines. The Proposed Development would form a prominent new vertical feature of the south-western visible horizon above the ridgeline formed by the western hill slopes of Mynydd Llwyd.
Residents in the settlements of Llanhilleth/ Brynithel/ Glandwr	High	High to Zero	**Major and Significant** to None	The settlement occupies the valley floor and northern flanking slopes of the Ebbw Valley, to the northeast of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**), partial visibility of the Proposed Development is demonstrated across the valley floor at Glandwr, while the more elevated parts of Llanhilleth and Brynithel are shown as having theoretical visibility of the Proposed Development as a whole at a distance of 3.0km at the closest point. The two eastern spurs of Llanhilleth following the valleys of the Nant Cyffin and Nant cnyw are located within ZTV coverage. The majority of properties in the eastern part of Llanhilleth lie on the eastern flanking hills of the Ebbw Valley and therefore have a primary orientation to the southwest; with the Proposed Development located to the southeast. Visibility towards the Proposed Development Site would also be restricted by intervening screening by other residences or mature vegetation to the south. The terraced

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				properties within the northern part of Llanhilleth and Brynithel are located higher up the valley sides and have a primary orientation to the south and southeast, towards the Proposed Development. The terraced nature of these properties, on the sloping terrain, reduces the opportunity for screening by nearby built form resulting in up to four hubs and up to four blade tips being visible. Across the base of the valley, at Glandwr, up to one hub and one blade tip would be visible in proximity to the Glandwr Industrial Estate which would provide some screening to oblique views of the Proposed Development.
Residents in the settlements of Croespenmaen/ Oakdale (Kendon, Penmaen)	High	Medium to Very Low to Zero	**Major/ Moderate and Significant** from the southern and eastern settlement edges, reducing to Moderate/ Minor and Not Significant for the remainder of the settlements.	The broadly linear and continuous settlements of Croespenmaen and Oakdale lie to the northwest of the Proposed Development across land which gradually falls to the north. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of both settled areas is illustrated as having theoretical visibility of the Proposed Development, at a minimum distance of 3.4km. The reasonably high density of both communities is predicted to restrict outward visibility to the southwest, towards the Proposed Development. The gradual loss of elevation from south to north would also suggest that dwellings across the northern part of both settlements would be less likely to have actual visibility of the proposed turbines. Conversely, residents on the southern edge of Oakdale and the eastern edge of Croespenmaen would be the most likely to attain views towards the Proposed Development Site, most notably across recent residential development on the margins of both communities. Outward visibility from these margins of the settled areas to the Proposed Development would be reduced to a degree by large-scale industrial buildings south of Croespenmaen, at Croespenmaen Industrial Estate, and by extensive areas of field boundary vegetation and mature woodland east of Croespenmaen and south of Oakdale.
Residents in the settlements of Trinant/ Pent-wyn	High	Medium to Very Low to Zero	**Major/ Moderate and Significant** on the eastern edge of the settlements, reducing to being Moderate/ Minor and Not	The two communities of Trinant and Pent-wyn are located alongside one another, east of the Ebbw Valley and northeast of the Proposed Development. With reference to the ZTVs (**Figures 6.2-6.6**) both settlements are illustrated as having theoretical visibility of the Proposed Development, at a distance of 3.9km at the closest point. The density of both communities is quite high while the predominant property orientation is on an east-to-west alignment. The Proposed Development is located to the southwest, with this boundary of both settlements reasonably well-wooded

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
			Significant for the remainder of the settlements.	and the land to the eastern periphery also populated by various areas of mature vegetation. It is also noted that there playing fields/ open spaces on the eastern boundary of both settlements; north of Cedar Road in Trinant and north of Llanerch Lane in Pent-wyn. Both of these spaces enclosed to a degree by mature woodland. Partial visibility of the Proposed Development could be attained from a portion of the roads within Trinant, which lie on a northwest-southeast orientation.
Residents in the settlement of Blackwood/ Pontllanfraith (The Bryn, Gelligroes)	High	Medium to Very Low to Zero	**Major/Moderate Significant** on the settlement edge, reducing to Moderate/ Minor and Not Significant for the remainder of the settlements.	The communities of Blackwood and Pontllanfraith form a large, settled area west of the Proposed Development, encompassing a number of smaller residential areas including The Bryn, Gelligroes, flanking the course of the Sirhowy River. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of both settled areas is illustrated as having theoretical visibility of the Proposed Development, at a minimum distance of 3.9km at the closest point. **Viewpoint 8** is located within Blackwood and is assessed in detail in **Appendix 6J**. Theoretical visibility of up to four hubs and up to four blade tips is demonstrated across a large proportion of both settlements. However, the profile of the landform on the margins of the Sirhowy River gradually falls to the west for a large area of Pontllanfraith, where the primary orientation of properties is north-south or northwest-southeast, and the Woodfieldside area of Blackwood, where the primary orientation is on an east-west alignment. The combination of reducing elevation and the density of built form is predicted to markedly reduce attainable views to the Proposed Development. From the western part of Blackwood and Pontllanfraith, the density of built form is again expected to reduce opportunities for actual visibility of the proposed turbines. In addition to dwellings, the eastern edge of both communities is defined by a series of larger industrial and retail units including at Newbridge Road Industrial Estate, Penmaen Industrial Estate, Blackwood Gate Retail Park and Blackwood High Street. Intervisibility with the Proposed Development would also be reduced by the screening influence of mature vegetation following the course of the Sirhowy River. Unobstructed visibility of the proposed turbines would be achieved in certain areas on the open edges of settled areas. This includes from Blackwood Show Fields/ Cefn Forest, on Greenwood Road in Blackwood, where visibility of two hubs and three blade tips is available. The screening influence of mature woodland

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				enveloping Blackwood Golf Course is an important influence in views from this area (**Viewpoint 8, Appendix 6J**).
Residents in the settlements of St Illtyd	High	Medium to Zero	**Major/ Moderate and Significant** to None	The historic village of St Illtyd occupies part of an elevated plateau of small-scale farmland northwest of the Proposed Development Site. With reference to the ZTVs (**Figures 6.2-6.6**) the majority of the village is illustrated as having theoretical visibility of the Proposed Development, at a minimum distance of 4.3km. **Viewpoint 6** is located on the PRoW network to the east of the village and is assessed in detail in **Appendix 6J**. Although shown by **Figures 6.2-6.6** as achieving unobstructed visibility of the Proposed Development, field survey confirmed that outwards visibility to the southeast, towards the proposed turbines, from the tight network of buildings within the village was quite limited. This limitation of visibility is reinforced by the mature pattern of field boundary vegetation lying southeast of the village. Successive layers of screening provided by mature hedgerows with trees denoting the boundaries of the small-scale field pattern foreshorten views from residential properties. Despite this, properties on the southern side of the village would have visibility of up to four hubs and up to four blade tips and the Proposed Development would introduce new, man-made vertical features to south-easterly views. It is important to note that although located in close proximity to St Illtyd, Viewpoint 6 is considered representative of views available to users of the PRoW network east of the village. Visibility of the Proposed Development from the core of the village and outer-lying properties would be more restricted.
<u>Visual Receptors: recreational routes</u>				
Recreational users of the Taith Torfaen Anytime Challenge	High	High to Zero	**Major and Significant** to None	The southern circuit of the route lies within 5km of the Proposed Development Site, originating in Pontypool and leaving the south-eastern edge of the settlement to cross the foothills of Twyn Calch and the extensive areas of coniferous forestry along the valley of the Cwm y Glyn; outside the theoretical visibility pattern of the Proposed Development (**Figure 6.14b**). ZTV coverage is indicated for the route as it crosses the northern foothills of Mynydd Llwyd, northeast of the proposed turbines, although the extensive coniferous forestry in this area would foreshorten views of the Proposed Development. The route then passes through the Proposed Development Site, following the network of PRoWs, bridleways and restricted

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				byways in a broadly southwest direction in close proximity to the proposed turbines, access tracks and substation. From here, the route proceeds south to enter the settled area of Abercarn where intervening built form would reduce visibility of the Proposed Development. The southern loop of the Taith Torfaen Anytime Challenge then proceeds west to cross the open moorland at Mynyddislwyn. Although the western slopes of the Ebbw Valley bordering Abercarn are well-wooded, the Proposed Development would introduce new, prominent vertical features in north-easterly views from Mynyddislwyn over a minimum separation distance of 1.5km. From Mynyddislwyn the route descends into the Sirhowy River valley, at Ynysddu. The southern loop then follows the southern, well-wooded slopes of the Sirhowy River Valley where no ZTV coverage is indicated by **Figure 6.14b** until the route reaches an area of ZTV coverage south of Crosskeys. The Proposed Development would form a prominent new vertical, man-made feature of channelled north-easterly views through the Ebbw Valley, with the potential for a degree of screening to be offered by the well-wooded intervening valley sides. The route then crosses the Sirhowy Valley, outside ZTV coverage, to proceed north towards the Iron Age Fort at Twmbarlwn where areas of theoretical visibility are illustrated across the hill summit. The geographical extent of theoretical visibility in this location will be somewhat reduced, however, by coniferous forestry. From the summit at Twmbarlwn, the Proposed Development would form an incremental increase in vertical features, affecting 22° of the horizontal field of view towards Mynydd Maen, across a minimum distance of 3.6km. From Twmbarlwn, the southern loop of the route follows the ridgeline of Mynydd Henllys in a north-easterly direction, skirting the western edge of Cwmbran and bordering the coniferous forestry southeast of Craig y Glyn, before ascending the southern slopes of Mynydd Maen to the summit. An existing 132kv overhead transmission line, and associated lattice towers, cross the moorland in this location forming prominent, vertical man-made features of the baseline landscape. The Proposed Development would be viewed in congruous scale with the existing vertical features of views from the summit of Mynydd Maen which include the communications mast on the summit of Mynydd Llwyd. From the summit of Mynydd Maen, the southern loop of the route follows the eastern slopes of

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				Mynydd Twyn-glas, where ZTV coverage is limited to fragmented areas of blade tip visibility, to the northeastern edge of the settlement at Pontypool. ZTV coverage across the northern loop of the Taith Torfaen Anytime Challenge is concentrated across two upland areas northeast and north of the Proposed Development Site, respectively. To the northeast, the route leaves the northern edge of Pontypool at Penygarn and crosses Little Mountain on the boundary of the BBNP to the open ridgeline of upland plateau at Mynydd Garn Wen and east of Mynydd Garnclochdy. The primary orientation of elevated views in this location is to the east, over the Usk Valley towards the BBNP. The Proposed Development would be visible to the southwest, across a separation distance of ~7.0km forming new man-made structures affecting a narrow part of the visible horizon (2°). To the north, further ZTV coverage is shown across the very minor part of the route east of Coety Mountain and for a more sustained portion of the route as it crosses the open moorland east of Abertillery between Gwastad, Waun Wen and Byrgwm. While the Proposed Development would again form new, man-made vertical features of southerly views this introduction would be experienced in the context of the operation wind turbines at Coed y Gilfach Farm.
Recreational users of the Ebbw Vale Walk	High	High to Zero	**Major and Significant** to None	The Ebbw Vale Walk follows the Ebbw Valley connecting the Sirhowy Valley Country Park, 4.9km to the southwest of the Proposed Development, and terminates near Festival Park, 10.5km to the northwest near Waun-Lwyd. At its closest point, the route passes within 1.6km of T4 on the western side of the Ebbw Valley above Abercarn. The southern section of the route between the Sirhowy Valley Country Park and Newbridge follows the western flanking slopes of the Ebbw Valley where coniferous forestry is extensive, enclosing outward visibility from the Ebbw Vale Walk. Northwest of Abercarn, at the route's closest point to the Proposed Development, the Ebbw Vale Walk crosses a short section (~175m) of recently felled coniferous forestry, allowing open views across the Ebbw Valley. The Proposed Development would form a prominent new vertical feature of easterly views from this location within 1.6km of the proposed turbines. As the route progresses north, it enters a network of smaller-scale, enclosed fields where mature boundary vegetation would frequently restrict views to the Proposed Development before the Ebbw Vale Walk enters the built up area of Newbridge.

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				North of Newbridge, and south of Trinant/ Pen-Twyn, the route crosses the western side of the Ebbw Valley where views to the proposed turbines would be regularly fragmented by the well-vegetated boundaries of the network of small-to-medium scale fields. Northeast of Croespenmaen, the Ebbw Vale Walk would be completely enclosed by mature woodland for a ~0.6km section as it traces the route of the B4251 Kendon Road. To the east of Trinant, unobstructed south-easterly views of the Proposed Development would be available across the looped section of the route as it round Coed Trinant. North of Trinant, between 5-10km from the proposed turbines, south-easterly views of the Proposed Development would become increasingly fragmented and partial due to the screening influence of intervening mature field boundary vegetation and more extensive areas of coniferous forestry flanking the Ebbw Valley at Graig Fawr, Aberbeeg and Llan-dafal. Southeast of Manmoel, the route passes in close proximity to the operational wind turbine at Pen Y Fan Ganol Farm which subsequently forms a prominent vertical feature of south-easterly views towards the Proposed Development as the Ebbw Vale Walk proceeds in a broadly north-westerly direction to Waun Lwyd.
Recreational users of the Cambrian Way	High	High to Zero	**Major and Significant** to None	ZTV coverage for the route of the Cambrian Way is illustrated by **Figure 6.14b** across three main areas. Firstly, an area of theoretical visibility is demonstrated across the southern hill slopes of the Sirhowy Valley, south of the Newtown area of Crosskeys, ~5.3km south of the Proposed Development. The Proposed Development would form a prominent new vertical, man-made feature of channelled north-easterly views through the Ebbw Valley, with the potential for a degree of screening to be offered by the well-wooded intervening valley sides. The route then traces the path of the Taith Torfaen Anytime Challenge, crossing the Sirhowy Valley (outside ZTV coverage) to proceed north towards the Iron Age Fort at Twmbarlwn where a second area of theoretical visibility is illustrated across the hill summit. The geographical extent of theoretical visibility in this location will be somewhat reduced, however, by coniferous forestry. From the summit at Twmbarlwn, the Proposed Development would form an incremental increase in vertical features, affecting 22° of the horizontal field of view towards Mynydd Maen, across a minimum distance of 3.1km. From Twmbarlwn, the Cambrian Way follows the ridgeline of Mynydd Henllys in a north-easterly direction, skirting the western edge of Cwmbran and bordering the

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				coniferous forestry southeast of Craig y Glyn where the route coincides with the Cistercian Way and Torfaen Trail, before ascending the southern slopes of Mynydd Maen to the summit. An existing 132kv overhead transmission line, and associated lattice towers cross the moorland in this location forming prominent, vertical man-made features of the baseline landscape. The Proposed Development would be viewed in congruous scale with the existing vertical features of views from the summit of Mynydd Maen which include the communications mast on the summit of Mynydd Llwyd. The final area of ZTV coverage within 10km of the Proposed Development is illustrated by **Figure 6.14b** across the upland area east of the Afon Llwyd valley and northeast of the Proposed Development Site. The route leaves the northern edge of Pontypool from Penygarn, following the Taith Torfaen Anytime Challenge, and crosses Little Mountain on the boundary of the BBNP to the open ridgeline of upland plateau at Mynydd Garn Wen and Mynydd Garnclochdy. The primary orientation of elevated views in this location is to the east, over the Usk Valley towards the BBNP. The Proposed Development would be visible to the southwest, across a separation distance of ~7.0km forming new man-made structures affecting a narrow part of the visible horizon (2°).
Recreational users of the Cistercian Way (Wales)	High	High to Zero	**Major and Significant** to None	The Cistercian Way (Wales) forms a circular pilgrimage trail throughout Wales and crosses within 10km of the Proposed Development Site between Rudry (~9.4km) southwest and Caerleon, ~10.0km southeast. ZTV coverage for the route of the Cistercian Way within 10km of the proposed turbines is illustrated by **Figure 6.14b** across two quite limited sections. Theoretical visibility of the hub and blade tips of the Proposed Development is shown for a 1.6km section of the ridgeline at Mynydd Henllys, west of Cwmbran and bordering the coniferous forestry southeast of Craig y Glyn, where the route coincides with the Cambrian Way, Torfaen Trail and Taith Torfaen Anytime Challenge. From here, the Proposed Development would form an incremental increase in vertical features, affecting 22° of the horizontal field of view towards Mynydd Maen, over a separation distance of 3.1km. The route of the Cistercian Way does not visit the Iron Age Fort at the summit of Twmbarlwn. A second area of theoretical visibility of blade tips only is illustrated by **Figure 6.14b** for a ~700m section of the route, ~5.6km southwest of the Proposed Development and west of Pontymister, in close proximity to the existing

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				communications mast on Mynydd Machen and north of the remnant spoil tip north of Pen-Rhiw Warren. The Proposed Development would form a new vertical, man-made feature of channelled north-easterly views through the Ebbw Valley, with the potential for a degree of screening to be offered by the well-wooded intervening valley sides.
Recreational users of the Torfaen Trail	High	Medium to Zero	**Major/ Moderate and Significant** to None	Theoretical visibility of the hub and blade tips of the Proposed Development is shown for a very localised (~200m) section of the southern loop on the ridgeline at Mynydd Henllys, west of Cwmbran, where the route coincides with the Cistercian Way, Cambrian Way and Taith Torfaen Anytime Challenge. The Proposed Development would form an incremental increase in vertical features, affecting a small part of the overall horizontal field of view towards Mynydd Maen, over a separation distance of 3.1km. The route of the Torfaen Trail does not visit the Iron Age Fort at the summit of Twmbarlwn. Across the northern loop of this figure of eight route, ZTV coverage of turbine blade tips and hubs is illustrated by **Figure 6.14b** within northern suburban areas of Pontypool at a minimum distance of ~5.5km to the northeast. Actual visibility from this portion of the route is judged to be substantially reduced by the intervening built form of the settlement. As the route leaves the northern edge of Pontypool and progresses along the eastern side of the Afon Llwyd valley a consistent area of blade tip ZTV coverage is shown, east of Abersychan and Cwmavon. In reality, views towards the Proposed Development would be frequently screened by the successive areas of coniferous forestry at Freehold Wood, Company's Wood and Lasgarn Wood as well as further areas of mature deciduous and mixed woodland southwest of Mynydd Garnclochdy. Where visible, the Proposed Development would introduce new man-made structures to a narrow part of the visible horizon over a separation distance ranging from ~5.9km to ~10.0km. North of the Proposed Development, further ZTV coverage is shown across a ~1.0km section of the route south of Coety Mountain and for a very minor part (~250m) on the eastern hill slopes of Twyn Du. While the Proposed Development would again form new, man-made vertical features of southerly views, this introduction would be exerted across a limited proportion of the Torfaen Trail in this location and would be experienced in the context of the operation wind turbines at Coed y Gilfach Farm.

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				On the western margins of Pontypool, between Snatchwood and Cwm Ffrwd-oer, hub and blade tip ZTV is illustrated for a portion of the route by **Figures 6.14b**. Views towards the Proposed Development Site from this part of the route would frequently be restricted by intervening mature woodland lining the valley of the Cwm y Glyn and bordering settled areas west of Tranch, enclosing Old Furnace and west of Wainfelin. The coniferous forestry across the northern hill slopes of Mynydd Llwyd was also restrict the visible extents of the Proposed Development. Overall, the proposed turbines would form a minor new feature of south-westerly views towards Mynydd Llwyd.
Recreational users of the Raven Walk	High	High to Zero	**Major and Significant** to None	An area of ZTV coverage for the route of the Raven Walk, within 10km of the proposed turbines, is illustrated by **Figure 6.14b** as it crosses the open moorland at Mynyddislwyn. Although the western slopes of the Ebbw Valley bordering Abercarn are well-wooded, the Proposed Development would introduce new, prominent vertical features in north-easterly views from Mynyddislwyn over a minimum separation distance of 1.5km. From Mynyddislwyn the route descends into the Sirhowy River valley, at Ynysddu. The Raven Walk then follows the southern, well-wooded slopes of the Sirhowy River Valley; on the same route as the Sirhowy Valley Ridgeway Walk, where no ZTV coverage is indicated by **Figure 6.14b** until the route reaches Twyn Gwyn, south of the Sirhowy Valley Country Park. Between Twyn Gwyn and the summit of Mynydd Machen a ~2.3km section of the Raven Walk would experience channelled north-easterly views through the Ebbw Valley to the Proposed Development; which would form a new vertical, man-made feature; with the potential for a degree of screening to be offered by the well-wooded intervening valley sides. An existing communications mast is located on the summit of Mynydd Machen. A very localised area of ZTV coverage is illustrated by **Figure 6.14b** northwest of the Iron Age Fort at the summit of Twmbarlwn. Actual visibility from this location would be ruled out by the screening influence of extensive coniferous forestry in this location.
Recreational users of the Celtic Way	High	High to Zero	**Major and Significant** at Mynydd Henllys to None.	Within 10km of the Proposed Development, a single area of ZTV coverage is illustrated by **Figure 6.14b** for the Celtic Way as it crosses the ridgeline at Mynydd Henllys, west of Cwmbran. From here, the Proposed Development would form an incremental increase in vertical features, affecting a small part of the horizontal

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				field of view towards Mynydd Maen, over a separation distance of 3.7km. The extensive presence of coniferous forestry in close proximity to this part of the route would reduce the overall portion of the route attaining visibility of the proposed turbines. The route of the Celtic Way does not visit the Iron Age Fort at the summit of Twmbarlwn and crosses the path of the Cambrian Way, Cistercian Way and Taith Torfaen Anytime Challenge in this location. The remainder of the Celtic Way would remain unaffected as a result of the Proposed Development.
Recreational users of the Sirhowy Valley Ridgeway Walk	High	High to Zero	**Major and Significant** at Mynydd Machen to None.	From its origin in the city of Newport, the first area of ZTV coverage as the route traverses north lies to the south of the Sirhowy Valley Country Park, at Mynydd Machen where the route coincides with the path of the Raven Walk and Rhymney Valley Ridgeway Walk. Between the summit of Mynydd Machen, where an existing communications mast is present, and Twyn Gwyn a ~2.3km section of the route would experience channelled north-easterly views through the Ebbw Valley. The Proposed Development would form new vertical, man-made features over a separation distance of 5.6km with potential for a degree of screening to be offered by the well-wooded intervening valley sides. The route then follows the southern side of the Sirhowy Valley through a consistent area of coniferous forestry outside the pattern of theoretical visibility illustrated by **Figure 6.14b** and passing in close proximity to the operational turbines at Bryn Ysgawen Farm and Tyle Crwth**.** A short section (~0.9km) of the route lying south of Wyllie, and east of Pen-y-cwarel, is demonstrated as having hub and blade tip ZTV coverage, ~5.5km southwest of the Proposed Development. In reality, the coniferous forestry flanking the Sirhowy Valley Ridgeway Walk in this location would rule out visibility of the proposed turbines. North of the residential area at Wyllie, the regions of ZTV coverages shown by **Figure 6.14b** for the route, including the closest area of theoretical visibility in Pontllanfraith (~4.8km, west of the proposed turbines) and northeast of Oakdale at The Rock (~5.5km, west), are wholly located within the dense built form of suburban areas where the route is almost continuously flanked by mature vegetation following the course of the Sirhowy River. Further north, less restricted visibility over a separation distances of ~7.4km towards the Proposed Development would be available for a ~1.7km section of the route between the Sirhowy River (north of Markham) and the minor road west of Manmoel. This more

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				inclusive visibility would still be limited to intermittent glimpses of the Proposed Development due to the screening influence of successive layers of intervening mature field boundary vegetation and mature woodland. The operational wind turbine at Pen Y Fan Ganol Farm would be a visible feature of views from this location, occupying the intervening landscape in south-easterly views to the proposed turbines. As the route passes the village of Manmoel, the screening provided by intervening vegetation rules out actual visibility of the Proposed Development, as evidenced by the assessment for **Viewpoint 12**, reported in **Appendix 6J**.
Recreational users of the Monmouthshire Way	High	High to Zero	**Major and Significant** to None	ZTV coverage across the Monmouthshire Way, within 10km of the Proposed Development, is focussed upon two upland areas northeast and north of the Proposed Development Site. To the northeast, the route leaves the northern edge of Pontypool at Penygarn and crosses Little Mountain on the boundary of the BBNP to the open ridgeline of upland plateau at Mynydd Garn Wen and east of Mynydd Garnclochdy. The route coincides with the path of the Cambrian Way and the Taith Torfaen Anytime Challenge in this location. The primary orientation of elevated views in this location is to the east, over the Usk Valley towards the BBNP. The Proposed Development would be visible to the southwest, across a separation distance of ~7.0km forming new man-made structures affecting a narrow part of the visible horizon (2°). To the north, further ZTV coverage is shown across a small part of the route northeast of Coety Mountain and for a more sustained portion of the route as it crosses the open moorland east of Abertillery between East Bank, Twyn Pentre and Byrgwm. Marginal stretches of the route in this location would benefit from the screening influence of small areas of woodland. While the Proposed Development would again form new, man-made vertical features of southerly views this introduction would be experienced in the context of the operation wind turbines at Coed y Gilfach Farm.
Recreational users of the Rhymney Valley Ridgeway Walk	High	High to Zero	**Major and Significant** to None	The Rhymney Valley Ridgeway Walk is a circular 44.4km route that follows public rights of way and minor roads across the hills surrounding the Rhymney Valley. The western part of the route lies within 10km of the Proposed Development arcing between Caerphilly to the southeast and Nelson to the northwest, passing~6.6km southeast of the Proposed Development Site at its closest point.

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				The route is illustrated on **Figure 6.14b** and **Viewpoints 9** and **14** are located on the route which are assessed in detail in **Appendix 6J.** A linear spur breaks off from the circular route to the north, crossing Gelligaer Common and onto Cefn y Brithdir and onwards to Rhymney. The majority of this part of the route lies beyond 10km from the Proposed Development and **Viewpoints 15** and **17** are located on the route which is assessed in detail in **Appendix 6J.** No significant visual effects were identified by **Appendix 6J** for this section of the Rhymney Valley Ridgeway Walk. An area of ZTV coverage is illustrated by **Figure 6.14b** south of the Proposed Development where the path of the Rhymney Valley Ridgeway Walk follows the route of the Sirhowy Valley Ridgeway Walk at Mynydd Machen. Between the summit of Mynydd Machen, where an existing communications mast is present, and Twyn Gwyn a ~2.3km section of the route would experience channelled north-easterly views through the Ebbw Valley. The Proposed Development would form new vertical, man-made features over a separation distance of 5.6km with potential for a degree of screening to be offered by the well-wooded intervening valley sides. The route then follows the southern side of the Sirhowy Valley at a higher elevation than that of the Sirhowy Valley Ridgeway Walk, skirting areas of coniferous forestry on the southern side of the Sirhowy Valley. A consistent area of ZTV coverage covering a 5.8km section of the route between Twyn yr Oerfel and the suburban area of Maesycwmmer is demonstrated by **Figure 6.14b**, over a minimum distance of ~6.4km to the southwest of the Proposed Development. **Viewpoint 9** is located on this section of the Rhymney Valley Ridgeway Walk and illustrates the proposed turbines would be visible as new structures on the visible horizon of north-easterly views, affecting approximately 9° of the horizontal FoV. The route passes in close proximity to the operational turbines at Bryn Ysgawen Farm and Tyle Crwth in this location with an operational solar farm and two communications masts also visible north of Mynydd y Lan. After passing through Maesycwmmer, the circuitous section of the route is predominantly located within the built form of the suburban area of Hengoed, which would limit outward easterly visibility towards the Proposed Development. The majority of the linear northern spur of the route lies beyond 10km from the Proposed Development Site. However, a short section passes through the suburban area of Gelligaer, where easterly views are limited by intervening built

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				form and mature vegetation. North of Gelligaer, the Rhymney Valley Ridgeway begins to cross Gelligaer Common where the proposed turbines would be visible as new structures on the visible horizon of easterly views in conjunction with a number of operational wind turbines including Oakdale Business Park, Pen-y-Fan Industrial Estate and Pen-y-Fan Ganol Farm, among others.
Recreational users of NCN466	High	High to Zero	**Major and Significant** (for the ~1.0km section through Swffryd) to None	Theoretical visibility is shown for a ~6.0km section of the route through the valley of the Cwm y Glyn, north of the proposed turbines, between Pontypool and Crumlin as well as for a ~0.2km section of the route north of Cwm and to the east of the Festival Park, where only blade tip theoretical visibility is shown. Between Pontypool and Crumlin, the route traces the A472 and review in the field indicates that the narrow and enclosed terrain of the valley in this location, combined with quite extensive mature roadside vegetation, would screen the majority of views south towards the Proposed Development, perpendicular to the direction of travel. The visible extents of the Proposed Development would, however, increase as the elevation of the route increases to the west, as NCN466 joins the B4471 to travel through Swffryd. Although some filtering of views would occur as a result of intervening built form within Swffryd, the Proposed Development would form prominent new vertical features of southerly views for eastbound cyclists for ~1.0km of the route and over a separation distance of ~1.6km. From Cwm, intervening built form and mature vegetation would suppress visibility of the blade tips of the proposed turbines.
Visual Receptors: recreational destinations				
Recreational users of Blackwood Golf Club	Medium	Medium to Zero	**Moderate and Significant** to None	With reference to the ZTV at **Figure 6.15b,** the majority of the golf course, including the club house, lies within the ZTV with visibility of up to four hubs and up to four tips illustrated for the central and western parts of the golf course, which lie at a slightly higher elevation. Easterly views towards the Proposed Development Site would be partly restricted by intervening tree cover on the eastern and southern boundaries of the course as well as intervening built form.

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
Recreational users of Sirhowy Valley Country Park	High	Medium to Zero	**Major/ Moderate and Significant** to None	**Figure 6.15b** indicates that large parts of the park along the base and lower southern hill slopes of the Sirhowy Valley would lie outwith theoretical visibility coverage for the Proposed Development. However, areas of ZTV coverage are shown 5.2km to the south, south of Crosskeys, and 6.7km to the southwest, on across the northern slopes of Mynydd Bach and Mynydd y Grug. **Viewpoint 9** is located in close proximity to the western boundary of the Sirhowy Valley Country Park and is assessed in detail in **Appendix 6J**. To the southwest, the Proposed Development would form new vertical features of north-easterly views from more elevated parts of the park, to the south of the Sirhowy Valley. Although the Sirhowy Valley Ridgeway Walk crosses the lower reaches of the well-wooded valley in this location, the Rhymney Valley Ridgeway Walk follows a more elevated route through the park skirting areas of coniferous forestry to east. Views from the park would be over a minimum distance of ~6.7km to the southwest and the proposed turbines would be visible as new structures on the visible horizon of north-easterly views, affecting approximately 9° of the horizontal FoV. The western part of the park lies in close proximity to the operational turbines at Bryn Ysgawen Farm and Tyle Crwth in this location with an operational solar farm and two communications masts also visible components of views towards the Proposed Development site, north of Mynydd y Lan. From the south, south of Crosskeys, the Proposed Development would form a prominent new vertical, man-made feature of channelled north-easterly views through the Ebbw Valley, with the potential for a degree of screening to be offered by the well-wooded intervening valley sides.
Recreational users of Open Access land and PRoW within 5km of proposed turbines	High	Very High to Zero	**Major and Significant** to None	**Figure 6.15b** shows a large proportion of the upland landscape to the north, east and south of the Proposed Development Site, above the settled valleys is designated as open access land and also contains numerous PRoW. High points where the Proposed Development would be most prominent include open access land and PRoW network to the north at Mynydd Llanhilleth and Cefn y Crib, in close proximity to **Viewpoint 6** (**Appendix 6J**), as well as to the open plateau of Mynyddislwyn and elevated ridgeline at Twmbarlwn and Mynydd Henllys (**Viewpoint 5**, **Appendix 6J**). Unrestricted views would also be available from Mynydd Maen and Mynydd Llwyd, including their upper slopes to the east of the Proposed Development Site (**Viewpoint 3**, **Appendix 6J**).

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				The distribution of local PRoW within 5km of the proposed turbines is shown in **Figure 6.15b** and extends in all directions around the Proposed Development Site with a number of PRoW also crossing through the Proposed Development Site. Many of the local PRoW cross elevated land across the western side of the Ebbw Valley, to the west, including across Maes-yr Haf, Coed Trinant and Mynyddislwyn as well as the lower slopes of the valley of the Cwm y Glyn to north. The western slopes of Mynydd Llwyd and southern slopes of Mynydd Llwyd (**Viewpoint 3**, **Appendix 6J**), as well as the ridgeline of Mynydd Henllys, to the south, also host various PRoW (**Viewpoint 5**, **Appendix 6J**). To the north, a network of routes covers the smaller-scale, historic agricultural landscape at St Illtyd (**Viewpoint 6**, **Appendix 6J**).
Recreational users of Open Access land between 5km-10km of the Site	High	Medium to Zero	**Major/ Moderate and Significant** to None	**Figure 6.15b** indicates that a large proportion of the upland landscape to the north, northwest and south of the Proposed Development Site is designated as open access land, parts of which fall within the ZTV coverage of the Proposed Development. Further areas of designated open access land to the northeast, east and south are illustrated as having no theoretical visibility of the proposed turbines. A detailed assessment from individual viewpoints referenced below is at **Appendix 6J**. Users of open access land have a High susceptibility to change and the views in the direction of the Proposed Development 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 Pant-y-Ffawydden (Viewpoint 9), Waun Wen/ Gwastad/ Byrgwm (Viewpoint 10), Little Mountain (Viewpoint 11), Mynydd Garnclochdy (Viewpoint 13), Gelligaer Common (Viewpoint 15), Coety Mountain, Mynydd James and Cefn yr Arail.
Visual Receptors: transport routes				
Users of the A472	Medium	High to Zero	**Major/ Moderate and Significant** (for the ~1.0km section of the route lying immediately west	With reference to the ZTVs in **Figures 6.2-6.6**, theoretical visibility of up to one hub and up to one blade tip is illustrated for a ~4.8km section of the road between Pontypool and Newbridge, at a minimum distance of ~0.6km north of the Proposed Development Site. A further ~0.5km section of theoretical visibility of up to one blade tip is also illustrated south of Swffryd. Review in the field indicates that the narrow and enclosed terrain of the valley in this location, combined with

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
			of the proposed turbines in Newbridge) to None.	quite extensive mature roadside vegetation, would screen the majority of views south towards the Proposed Development, perpendicular to the direction of travel. Travelling eastbound between Springfield (Pontllanfraith) and Newbridge, at the roundabout with the A467, theoretical visibility of up to four hubs and up to four blade tips is illustrated for a ~2.8km section of the route. In reality, views towards the Proposed Development would be heavily screened by mature roadside vegetation which channels views in the direction of travel and restricts broader visibility across the landscape. More open views of the Proposed Development would be available for ~1.0km section of the A472 as it approaches the roundabout with A467 where four hubs and four blade tips would be visible on the horizon of Twyn-y-ganol, at a minimum distance of ~1.7km to the west. Further parts of the route are illustrated by **Figures 6.2-6.6** as having theoretical visibility of up to four hubs and up to four blade tips: for a ~2.0km section between Maesycwmmer and Gelligaer lying 5.6km to the west and over a ~1.9km stretch between Wern-isaf (west of Tredomen) and Ystrad Mynach, 8.5km to the west. However, views for eastbound road users in these locations would be screened by intervening mature roadside vegetation and extensive areas of suburban built form. Actual visibility would be limited to a ~0.4km portion of the route west of Tredomen where up to two hubs and up to two blade tips would be seen fleetingly and intermittently in the direction of travel as distant features, ~9.6km to the east. 9.2km to the northeast of the Proposed Development, a 1.0km section of the A472 at Little Mill is illustrated as having ZTV coverage of up to one hub and up to one blade tip. However, actual visibility is expected to be ruled out by the extensive intervening screening provided by mature woodland and built development including the Mamhilad Park Estate and Usk Vale Park.
Users of the B4471	Medium	High to Zero	**Major/ Moderate and Significant** (for the ~1.3km section at Swffryd) to None	The B4471 links Aberbeeg, in the north, with Swffryd to the south. The route follows the eastern side of the Ebbw Valley and is typically flanked by mature woodland or built development. With reference to the ZTVs in **Figures 6.2-6.6**, theoretical visibility of up to four hubs and up to four blade tips is illustrated for a ~1.3km section of the road as it passes through Swffryd, north of the A472 and 1.6km northeast of the Proposed Development. Although some filtering of views would occur as a result of intervening built form within Swffryd, the Proposed Development would form

Receptor	Sensitivity of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
				prominent new vertical features of southerly views on the opposite side of the valley. The visible extents of the Proposed Development would, however, reduce as the elevation of the route reduces to the east, at the junction with the A472. A further ~0.75km section of theoretical visibility of up to one hub and up to one blade tip is also illustrated further north in the Ebbw Valley at Llanhilleth, 3.7km northwest of the Proposed Development. The route is flanked by scrub/ naturally regenerating vegetation, to the east, and built form, to the west, as it passes through Llanhilleth. Intervening mature vegatation is also present across the eastern hill slopes of the Ebbw Valley at Craig Swffryd. These screening influence would exclude visibility for southbound users of the B4471 in Llanhilleth.

1. The sensitivity of a receptor is defined using the criteria set out in Section 6.8 and **Appendix 6A** and is defined as Very Low, 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 **Appendix 6A** and is defined as Very Low, Low, Medium, High and Very 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 and **Appendix 6A**.