



Parc Ynni Calon y Gwynt Cyf

PARC YNNI CALON Y GWYNT

Planning, Design and Access Statement





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TYPE OF DOCUMENT (VERSION) PUBLIC

PROJECT NO. 62282400

OUR REF. NO. 62282400_PDAS_002

DATE: JULY 2026

WSP

1 Capital Quarter

Tyndall Street

Cardiff

CF10 4BZ

Phone: +44 2920 769 200

WSP.com



QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks				
Date	June 2026	July 2026		
Prepared by	Sam Clayton/ Moses Ho	Moses Ho		
Signature				
Checked by	Russell Borthwick	Russell Borthwick		
Signature				
Authorised by	Gavin Lewis	Gavin Lewis		
Signature				
Project number	62282400	62282400		
Report number	001	002		
File reference				

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EXECUTIVE SUMMARY

This Planning, Design and Access Statement (PDAS) has been prepared by WSP UK Limited on behalf of Parc Ynni Calon y Gwynt Cyf (the Applicant) to support a Development of National Significance (DNS) application for the construction and operation of Parc Ynni Calon y Gwynt, a proposed wind farm located approximately 2.7km to the north of Clatter within the Powys County Council (PCC) administrative area.

The Proposed Development comprises up to eleven wind turbines, each with an anticipated generating capacity of up to 7.2 megawatts (MW), a battery energy storage system (BESS), and associated infrastructure. This includes permanent hard standing and laydown areas, underground power cable connections, new and updated access tracks and access point, temporary borrow pits (potential for borrow pits and their locations is subject to ongoing review and assessment), and temporary construction compounds. A micro-siting allowance of up to 50m is proposed for the wind turbines and associated infrastructure.

The Proposed Development has undergone iterative design development to maximise land available for power generation while minimising environmental effects. The layout of the Proposed Development has been informed by a balanced consideration of technical, economic and environmental constraints, alongside relevant planning policy and deliverability in line with the 2050 Net Zero targets for Wales. The design of the Proposed Development has also evolved through ongoing engagement with the local community and consultees, ensuring that the design responds appropriately to environmental and local considerations.

The Proposed Development would contribute significantly to renewable energy generation, supporting the reduction in carbon emissions in line with Future Wales: The National Plan 2040 (Future Wales), Planning Policy Wales Edition 12 (PPW 12), and wider Welsh and UK national targets. The Site is located within Pre-Assessed Area (PAA) 3 for Wind Energy, as identified under Policy 17 in Future Wales, indicating that the Proposed Development is located in an area considered suitable in principle for wind energy development. The Proposed Development is also supported by the Powys Local Development Plan as a renewable energy project.

Future Wales sets out national policy and is the highest tier of the development plan against which DNS applications are assessed. This PDAS assesses the Proposed Development against Policies 17 and 18, which are the two principal policies for renewable and low carbon energy developments. The Proposed Development will provide comprehensive benefits from an environmental, social and economic perspective, including introducing a low carbon energy source, and increasing security and reliability of energy supply. The Proposed Development will result in more diverse sources of energy supply.

An Environmental Statement has been prepared in accordance with Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017. The ES reports the findings of an assessment of the potentially significant environmental effects of the Proposed Development, as well as any measures needed to mitigate likely significant adverse environmental effects, taking account of the Mitigation Hierarchy. Based on the various planning and environmental assessments



undertaken, while significant effects have been identified within the ES, these are considered to be outweighed by policy support at both national and local level, the Site's location within the PPA 3 for Wind Energy, the benefits of the Proposed Development, and the proposed mitigation and compensation measures. Taking all relevant considerations into account, on balance, the Proposed Development is therefore considered to be acceptable.

In summary, this PDAS demonstrates that the Proposed Development complies with both national and local planning policies in relation to renewable energy development.

1 INTRODUCTION

1.1 OVERVIEW

- 1.1.1. This Planning, Design and Access Statement (PDAS) has been prepared on behalf of Parc Ynni Calon y Gwynt Cyf (the Applicant) by WSP UK Limited as one of a suite of documents supporting a Development of National Significance (DNS) application for the construction and operation of a wind farm comprising up to eleven wind turbines (up to 80MW in total), battery energy storage system (BESS) and associated infrastructure on land 2.7km to the north of Clatter, within the Powys County Council (PCC) area (hereafter referred to as the Proposed Development).

1.2 PURPOSE OF THE PLANNING, DESIGN AND ACCESS STATEMENT

- 1.2.1. This PDAS has been prepared to demonstrate the suitability of the Proposed Development in planning and design terms and supports the submission of an application to the Welsh Ministers via Planning and Environment Decisions Wales (PEDW) for planning permission for the Proposed Development as a DNS. The PDAS has been informed by the findings of the Environmental Statement (ES), which sets out an assessment of the likely significant environmental effects of the Proposed Development.
- 1.2.2. This PDAS:
- Provides a brief description of the Proposed Development including its site history and approach to the preparation of the proposal;
 - Sets out the objectives and design considerations of the Proposed Development; and
 - Reviews and assesses the relevant national and local planning policy and concludes that the Proposed Development is in accordance with the relevant Development Plan documents and other national planning policy.
- 1.2.3. The PDAS refers to and should be read in conjunction with the other documents submitted as part of this planning application including the following:
- Environmental Statement (ES);
 - Green Infrastructure Statement (GIS); and
 - Outline Construction Environmental Management Plan (CEMP).

1.3 STRUCTURE OF THE PLANNING, DESIGN AND ACCESS STATEMENT

- 1.3.1. The remainder of the document provides the following information:
- Section 2 – provides background on the Applicant, the Site, the Proposed Development, planning history and Environment Impact Assessment (EIA) approach;
 - Section 3 – summarises the factors that were considered in the design process and access arrangements for the Proposed Development;
 - Section 4 – summarises the national and local policy context;
 - Section 5 – assesses the Proposed Development against the national and local planning policy context;

- Section 6 – concludes how the Proposed Development meets the relevant planning policy requirements through the application of the planning balance, demonstrating that the benefits of the Proposed Development outweigh the impacts; and
- Section 7 – Glossary.

1.4 APPROACH TO THE DESIGN

- 1.4.1. The design process involved in formulating the layout of the Proposed Development has been through a combination of engineering requirements and environmental considerations in order to produce an appropriate layout in terms of function and energy yield, whilst aiming to avoid or limit environmental impacts.
- 1.4.2. A detailed understanding of the existing environment (including land use, infrastructure, ecology, hydrology, ornithology, soil and peat, noise and archaeology) helped to ensure a holistic approach to the design of the Proposed Development. An Environmental Impact Assessment (EIA), which considered the likely significant effects on a range of environmental receptors, has also informed the design. The findings of the EIA are contained in the ES. Where appropriate, this PDAS refers to the findings of the ES.

1.5 OBJECTIVES OF THE PROPOSED DEVELOPMENT

- 1.5.1. Underpinning the design of the Proposed Development is the intention to provide a wind farm that will provide a source of renewable energy to support the growing clean energy needs of Wales without having unacceptable adverse effects on the environment. This means that the Proposed Development has been located and designed to:
- Utilise the latest wind turbine technology, consisting of more efficient and larger turbines where these can be reasonably accommodated within the landscape, as supported by Policy 17 of Future Wales;
 - Consider landform, scale and land use to locate turbines on the larger scale hill tops/ridges;
 - Minimise the effects of visible aviation lighting through the implementation of all available mitigation measures to reduce the number, frequency and intensity of visible lighting required;
 - Avoid breaching the ‘residential visual amenity threshold’ at nearby properties, beyond which these properties could be widely regarded to be unattractive places to live;
 - Limit noise at nearby properties to acceptable levels in accordance with established guidance, subject to the implementation of a curtailment strategy or low power modes;
 - Avoid locating any physical infrastructure within the Llyn Mawr Site of Special Scientific Interest (SSSI) and avoid significant adverse effects on the SSSI;
 - Minimise interactions with ecologically sensitive habitats to the greatest feasible extent;
 - Protect the hydrological regime of the Proposed Development site (hereafter referred to as the Site), including peatland hydrology, and the interaction of this with the hydrological regime of the Site’s surroundings, with particular focus on the Llyn Mawr SSSI and its setting;
 - Take account of the potential for effects on all bird species of conservation concern at and around the Site;

- Take account of cultural heritage assets and their settings, including Scheduled Monuments, listed buildings and non-designated but locally important heritage assets;
- Minimise the requirement for significant earthworks by considering topography and slope stability; and
- Secure net benefit for biodiversity.

2 OVERVIEW OF THE PROPOSED DEVELOPMENT

2.1 THE APPLICANT

- 2.1.1. Parc Ynni Calon Y Gwynt is being developed by Parc Ynni Calon Y Gwynt Cyf, a joint venture between Wind2 Limited and Octopus Energy Generation.
- 2.1.2. Wind2 Limited is a specialist renewable energy developer, working on the development of a range of renewable energy projects across the UK. The company's head office is located in Mold, North Wales.
- 2.1.3. Octopus Energy Generation is one of Europe's largest specialist renewables investors. Their portfolio covers £8.5 billion of green energy generation across 21 countries producing 5.8GW of renewable energy. Octopus Energy Generation operates wind, solar and battery projects across the UK.
- 2.1.4. The Applicant offers significant knowledge of the renewable energy sector and experience in delivering successful renewable energy generation projects.

2.2 THE SITE

- 2.2.1. The Proposed Development site (hereafter referred to as the Site) is situated within the administrative area of PCC. The Site is located on hills to the north of the A470 trunk road, approximately 2.7km north of the village of Clatter, 3.5km northeast of the village of Carno, 3.5km north of the village of Pontdolgoch and 12km northwest of Newtown.
- 2.2.2. The Site encompasses an area of approximately 381 hectares (ha) and is shown in **Figure 1.1 – Site Location Plan** (See **Appendix B**).
- 2.2.3. The Site boundary includes approximately 15km of new track, comprising approximately 3.1km of a new access road over open farmland as well as new on-site access tracks to allow access to the on-site infrastructure. Site access is currently via an unnamed road off the A470 in Pontdolgoch to the south of the Site. The new access road would begin at an existing road junction with the B4568. The new access road would then head north, utilising a combination of existing minor roads and farm tracks where possible as well as sections of new access roads across open farmland to maintain a suitable gradient and facilitate entry onto the Site.
- 2.2.4. The existing land use of the Site and surrounding area is largely comprised of agricultural pasture used for livestock grazing, and is interspersed by hedgerows, existing access roads and pockets of woodland throughout. A review of the Wales Agricultural Land Classification (ALC) interactive map viewer suggests that the land mainly comprises Grade 4: poor quality agricultural land and Grade 5: very poor quality agricultural land. The southern-most section of the access track crosses Grade 3b and a small area of Grade 2 and Grade 3a land, which are classified as best and most versatile agricultural land. The affected section is only approximately 165m in length.
- 2.2.5. The Afon Carno is a Main River located approximately 2km south of the Site boundary. There are two ordinary watercourses within the Site, namely the Nant y Llyn Mawr and Nant Cwmgerwyn. The new access road also intersects a number of unnamed ordinary watercourses and tributaries of the Afon Carno.

- 2.2.6. Llyn Mawr SSSI is located partially within the southern extent of the Site boundary. The 20.1ha SSSI consists of an upland lake and associated wetland supporting habitat. The designated site is of ornithological importance and is extensively used by waterfowl. The immediate catchment of the lake within the designated site includes some bracken slopes, areas of gorse scrub, acid grassland, wet heath and mesotrophic marshland habitat. In summer typical species are mallard, tufted duck and goosander, whilst in winter species include whooper swan. The surrounding area is also used by wintering Greenland white-fronted geese.
- 2.2.7. There are several scheduled monuments located within the central and north-western extents of the Site. These largely comprise cairns of varying sizes and stone rows dating from the Bronze Age.
- 2.2.8. There are a small number of isolated dwellings in proximity to the Site, the closest is located immediately south of the Site boundary, approximately 200m north of Llyn Mawr

2.3 THE PROPOSED DEVELOPMENT

- 2.3.1. Parc Ynni Calon Y Gwynt Cyf is seeking planning permission for the construction and operation of a wind farm of up to eleven turbines. Under Regulation 4A of The Developments of National Significance (Specified Criteria and Prescribed Secondary Consents) (Wales) Regulations 2016¹, consent is required from the Welsh Ministers for the construction of an onshore wind generating station where it is expected to have (when constructed) an installed generating capacity of 10MW or above. The Proposed Development therefore qualifies as a DNS.
- 2.3.2. The layout of the Proposed Development, incorporating maximum tip heights of up to 200m, for all turbines bar Turbine 7, which will have a maximum tip height of 180m, has been chosen because it balances sustainably high productivity with the environmental sensitivities present at the Site. The grid references for each turbine are provided within **Table 2-1** below. The indicative output capacity of the Proposed Development at this stage is 80MW. However, this capacity may vary subject to the final turbine model chosen.

Table 2-1 – Proposed Turbine Locations

Turbine ID	Easting	Northing	Maximum blade tip height (m)
1	301390	297769	200
2	300902	297852	200
3	300318	297758	200
4	300220	298151	200
5	299473	297686	200
6	299352	298063	200
7	299257	298539	180

¹ UK Government (2016). The Developments of National Significance (Specified Criteria and Prescribed Secondary Consents) (Wales) Regulations 2016. [Online] Available at: <https://www.legislation.gov.uk/wsi/2016/53/regulation/4/2016-03-01> [Accessed April 2026].

Turbine ID	Easting	Northing	Maximum blade tip height (m)
8	299857	298767	200
9	300371	298812	200
10	300395	299410	200
11	301024	298755	200

2.3.3. Alongside the eleven turbines, the Proposed Development shall also consist of:

- BESS infrastructure and compound;
- Crane pads (hardstandings) and laydown areas adjacent to each wind turbine;
- Power cables linking the wind turbines to the onsite substation, laid in trenches underground, including cable markers, health and safety and other signage;
- New and upgrading of existing access tracks, passing places and turning heads;
- Construction of a new access road from an existing junction of the A470 with the B4568 to facilitate access onto the Site;
- Grid connection infrastructure, including an onsite substation compound, consisting of a 33kV/132kV switching station, transformer area and control building;
- The creation of temporary borrow pits for the extraction of stone (the potential locations within the Site are currently being reviewed); and
- Temporary construction compound(s).

2.3.4. A comprehensive description is provided within Chapter 4 (Description of the Proposed Development) of the ES.

2.3.5. The layout of the Proposed Development, including the access tracks, temporary construction compound and substation, is shown on **Figure 1.2 – Site Layout Plan** (See **Appendix C**).

2.3.6. The Proposed Development will have an operational lifespan of 40 years. A 10-year time limit for commencement of the Proposed Development is sought to provide the necessary flexibility required due to the current uncertainty regarding the date on which the Proposed Development will be permitted to connect to the national electricity grid. In April 2025, Ofgem, the energy regulator, approved proposals from the National Energy System Operator (NESO) to reform the connection process, prioritising projects which are deliverable in the short term and located in areas where additional generating capacity is required. NESO has re-ordered the connection queue based on strategic criteria, which includes considerations such as project location, technology type and project readiness. The applicant has received confirmation from NESO that the Proposed Development has met the relevant strategic criteria and will be offered a connection offer (referred to as a 'Gate 2' offer). At the time of writing, NESO have advised that the grid connection date to be offered will fall into the period 2031 – 2035, however the precise date is yet to be confirmed (confirmation is expected in 2027). While 2031 represents the earliest date at which it may be possible for the Proposed Development to connect to the national grid, this may be delayed until the mid-2030s.

2.4 GRID CONNECTION

- 2.4.1. At the time of writing, July 2026, discussions are ongoing with the Distribution Network Operator (DNO) and National Grid (NG) regarding the Proposed Development's grid connection, which will be subject to a separate consent and will not form part of the DNS application.
- 2.4.2. The on-site substation will connect the Proposed Development into the electricity network, at a voltage and location yet to be determined. However, a high-level appraisal of the potential impacts and mitigation measures associated with a typical grid connection route, comprising of a combination of wooden pole overhead line (OHL) conductors and underground cable (UGC) has been included in **ES Appendix 4B – OHL Appendix**.

2.5 PLANNING HISTORY

- 2.5.1. The following applications are of particular relevance to the proposal. These are detailed in **Table 2-2** below:

Table 2-2 – Relevant Planning History

Application Number	Description	Status
P/2015/0449	Full: Erection of a 70 metre high anemometry mast including guy wire anchoring for a period of up to 3 years at grid ref: 299977 / 298842; Land at Y Glonc North East of Carno Powys;	Consented 28 th October 2015
P/2014/0581	Full: Installation of a temporary wind monitoring mast 70m in height, supported by guy wires with a maximum diameter of 100m (Temporary for 3 years) (Resubmission); Land at Y Glonc E:299941, N:298783 Carno;	Consented 7 th August 2014

- 2.5.2. A number of wind farms, listed below, have been consented in the wider area surrounding the Site. This demonstrates the suitability of the landscape for supporting wind energy development, in line with the designation of the PAA. While cumulative impacts from these developments need to be considered where required, the permissions for and existence of these developments indicate that impacts of wind energy development can be acceptably accommodated within the Site and the surrounding environment, with a presumption in favour of development.

- Mynydd Clogau wind farm;
- Tirgwynt wind farm;
- Carno I wind farm;
- Carno II wind farm; and
- Carno III wind farm.

2.6 ENVIRONMENTAL IMPACT ASSESSMENT

- 2.6.1. The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017² (the EIA Regulations from here on) apply to DNS applications. The Proposed Development falls within Row 3(h)(i) of the table at paragraph 2 of Schedule 2 of the EIA Regulations, which relates to installations for the harnessing of wind power for energy production (wind farms), as it exceeds the threshold for both the site area and hub height. For all Schedule 2 developments where it is decided that the particular development may have significant effects on the environment, whether on account of its nature, scale or location, an EIA is required.
- 2.6.2. A request for a Scoping Direction was submitted to PEDW on 07 March 2025. PEDW issued a Scoping Direction on 14 May 2025 confirming that the following aspects needed to be scoped into the EIA:
- Material assets and waste;
 - Ecology;
 - Ornithology;
 - Landscape and Visual;
 - Cultural heritage;
 - Hydrology;
 - Geology and soils;
 - Noise and vibration;
 - Access, traffic and transport;
 - Aviation and radar;
 - Shadow flicker;
 - Telecoms and electromagnetic signals;
 - Climate change;
 - Glint and glare;
 - Socio-economics;
 - Population and human health; and
 - Major accidents and hazards (including fire risk).
- 2.6.3. The ES has been based on the Scoping Direction, as well as subsequent consultation and assessment work. For example, since the Scoping Direction, the solar element of the Proposed Development has been removed and therefore Glint & Glare is no longer considered in the EIA. Some other topics are considered but not as standalone chapters, for example Climate Change, Population and Human Health, and Major Accidents and Hazards. The ES includes an assessment of the likely significant environmental effects of the Proposed Development, leading to a conclusion about which effects were assessed as likely to be significant and identifying potential environmental mitigation measures in respect of likely significant adverse effects.
- 2.6.4. The ES should therefore be read in conjunction with this PDAS and other application documents.

² UK Government (2017). The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017. [Online] Available at: <https://www.legislation.gov.uk/wsi/2017/567/contents> [Accessed April 2026].

3 DESIGN AND ACCESS

3.1 INTRODUCTION

- 3.1.1. The Proposed Development would be carried out on a site having an area greater than 1 hectare or more and, as such, represents a 'major development' which means a 'Design and Access Statement' is required to accompany the DNS application. Part 3 Article 14 of the Developments of National Significance (Procedure) (Wales) Order 2016 (as amended)³ states a DNS application must include a statement ("a design and access statement") which complies with paragraph (2).
- 3.1.2. Paragraph 2 states a design and access statement must—
- (a) Explain the design principles and concepts that have been applied to the development;
 - (b) Demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account;
 - (c) Explain the policy or approach adopted as to access, and how policies relating to access in the development plan have been taken into account; and
 - (d) Explain how any specific issues which might affect access to the development have been addressed.
- 3.1.3. This PDAS has also been prepared having regard to the Welsh Government's guidance 'Design And Access Statements: Why, What and How,' (April 2017) which provides guidance on what to include in a DAS and how to communicate the proposals. In particular, Section 5 of the guidance states that a DAS should clearly and logically lead the reader through the design process so that the rationale behind the final proposal can be understood.

3.2 DESIGN PRINCIPLES

- 3.2.1. Wind turbines convert the kinetic energy of the wind into electrical energy. Air passing over the blades of a wind turbine causes them to rotate. This low speed rotational motion is stepped up via a gearbox and converted into electrical energy at a voltage of approx. 690V by a generator located inside the nacelle, which is then converted to a high voltage (typically 33kV) by a unit transformer, located either at the base of the turbine or within the nacelle, for transmission across the wind farm. A diagram showing the structure of a typical wind turbine is shown in **Plate 3-1**.

³ UK Government (2016). The Developments of National Significance (Procedure) (Wales) Order 2016. [Online] Available at: <https://www.legislation.gov.uk/wsi/2016/55/made> [Accessed April 2026].

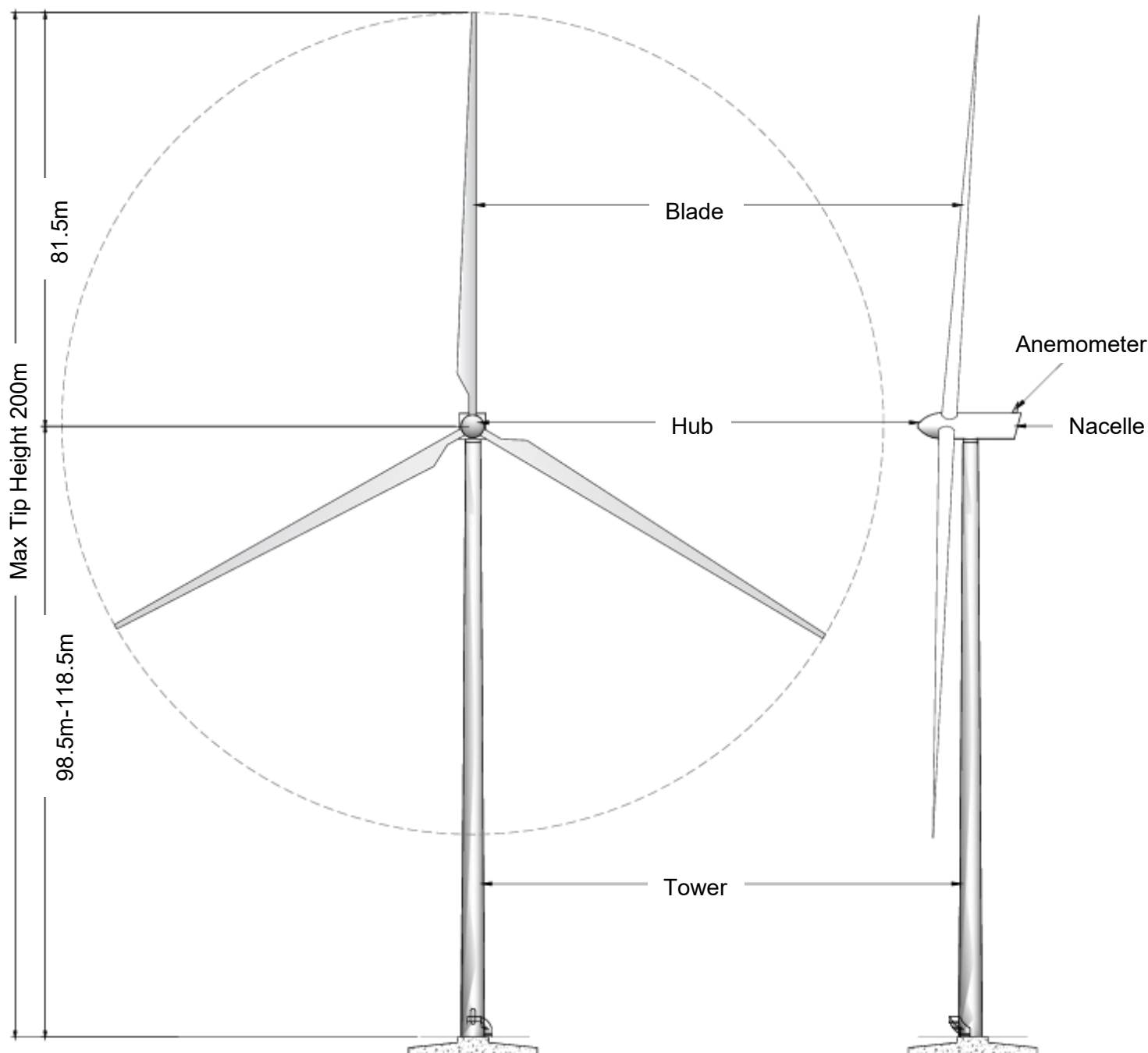


Plate 3-1 – Typical Wind Turbine

- 3.2.2. Underground cables link all the turbine unit transformers to a dedicated substation on the Site where the electricity generated by the wind farm is metered and transformed to the same voltage as the electricity grid system to which the wind farm will be connected.

3.3 DESIGN CRITERIA

- 3.3.1. Wind farms should, to be optimal, be designed to maximise energy generation from the available wind resource while minimising land take and the environmental impacts of the development. The best layout depends on a range of technical, economic and environmental criteria as follows:

- Design Principles – the layout and siting of the Proposed Development have been informed by the principles set out in Technical Advice Note (TAN) 12⁴ and Design and Designing for Renewable Energy in Wales⁵;
- Ground Conditions – must be suitable for the installation of wind turbines, access tracks and cables;
- Site Topography – computer modelled to establish the wind flow on and around the site to provide guidance on the best locations for the wind turbines;
- Proximity to Occupied Dwellings – turbines have to be located sufficiently away from local houses to protect local amenity;
- Environmental Constraints – features and arenas of local environmental sensitivity (ecology, heritage, hydrology etc.) are identified and their implications considered;
- Landscape and Visual Design – siting and layout modified to reduce the impacts on visual receptors;
- Existing Land Use – wind turbines and associated infrastructure occupy on average 2% of site land. The existing use of the land is considered in the layout of access tracks and turbines, to minimise construction impact;
- Presence of Woodland – size and scale of woodland can reduce energy production from turbines;
- Proximity to Obstructions – tall trees or buildings impact the operation of turbines;
- Grid Capacity – available capacity of the electricity grid is required to move power generated from the turbines; and
- Road Network Proximity – a suitable size of road is required to allow transportation to the site of construction equipment and materials.

3.3.2. In addition to the above considerations, planning guidance and discussions with statutory and non-statutory consultees and the landowners have an influence over the evolution of the design.

3.4 ENERGY YIELD

3.4.1. It is important that wind turbines are sited to capture the best available wind resource. This means maximising exposure to the prevailing winds through intelligent location and appropriate spacing of the turbines. In converting the energy from wind into electricity, there is a reduction in wind speed immediately behind each turbine. The Proposed Development has therefore been designed with appropriate separation spacing, taking into account and balancing the environmental features present.

⁴ Welsh Government (2016) Technical Advice Note 12: Design. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2018-09/tan12-design.pdf> [Accessed April 2026]

⁵ Design Commission for Wales (2023) Designing for Renewable Energy in Wales. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2023-12/designing-for-renewable-energy-in-wales.pdf> [Accessed April 2026].

3.5 SITE SELECTION

- 3.5.1. The process and approach to selecting sites for renewable energy development involves early assessment of the potential capacity for energy generation, balanced against environmental and technical constraints, considered with relevant policy and project deliverability in mind and in line with a target to generate 100% of electricity by renewable means by 2035 and 2050 Net Zero targets for Wales.
- 3.5.2. The Site is located in Pre-Assessed Area (PAA) 3 for Wind Energy, as set out under Policy 17 in Future Wales. The PAAs have been identified by the Welsh Government through a rigorous assessment process. As such, here is a policy presumption in favour of larger-scale wind energy development in this location, subject to fulfilment of criteria in Policy 18.
- 3.5.3. It is in this location.
- 3.5.4. In addition, desk-based assessment was undertaken by the Applicant to identify suitable land using Geographical Information System (GIS) by mapping a range of technical and environmental constraints, such as:
- Nationally designated landscapes such as National Parks and National Landscapes/Areas of Outstanding Natural Beauty (AONBs);
 - Cultural heritage designations such as World Heritage Sites, Schedule Monuments, Listed Buildings and Conservation Areas;
 - Ecological designations such as Sites of Special Scientific Interest (SSSI), Special Protection Areas (SPA), Special Area of Conservation (SAC), Priority Habitat, Ancient Woodland, Peatland and Local Nature Reserves;
 - Topographical survey to understand and ensure gradients that can support the placement of turbine and associated laydown areas;
 - Wind resource of the area was considered using publicly available wind data sources to assess wind speed and commercial viability;
 - Proximity to nearby residential properties; and
 - Aviation constraints including licenced aerodromes and visibility to military and civilian RADARs.
- 3.5.5. Overall, it is determined by the Applicant that the wind speed and terrain characteristics of the Site are favourable for wind energy development. Existing land use and suitable access requirements also positively contribute to the suitability of the Site.

3.6 DESIGN ITERATIONS

- 3.6.1. Wind energy development is an iterative process, with the layout of the Proposed Development evolving to respond to the environmental and technical constraints of the Site, as well as engagement with the local community and statutory and non-statutory consultees. These iterations, along with the design rationale, are set out in Table 3-2 of Chapter 3 (Scheme Need, Alternatives and Iterative Design Process) of the ES. In summary, significant design evolution has occurred as part of the iterative design process, with environmental effects minimised as far as is practicable, when accounting for the number of potential environmental and technical receptors.

3.7 MICRO-SITING

- 3.7.1. Micro-siting refers to the minor adjustment of the precise location or positioning of a structure or infrastructure within an approved development site, typically to accommodate site-specific conditions, without materially altering the overall development as consented as the optimal locating of infrastructure for yields, while considering the physical limitations and sensitivities on Site.
- 3.7.2. The application seeks a micro-siting allowance for the turbines and associated infrastructure, which would allow minor changes to turbine locations at the construction stage in the event that certain sensitivities related to environmental, geotechnical, health and safety or wind sensitivities are identified. The allowance which is being sought has been accounted for in the EIA process and is up to 50m for turbines and 50m for internal wind farm tracks and other infrastructure such as the substation and site compound. This mitigation may be restricted further in terms of specific locational hard constraints, for example not micro-siting closer to a watercourse if within 50m of a watercourse.

3.8 LANDSCAPING DESIGN

- 3.8.1. Whilst its location within a PAA confirms that in planning policy the landscape is capable of accommodating the Proposed Development in an acceptable way, its layout and design have nevertheless considered the potential landscape and visual impacts on nearby sensitive receptors and features of the surrounding environment. The design process has followed the mitigation hierarchy in that where the turbines cannot be screened from view their appearance in the landscape has been considered in terms of its design, reducing the scale of the development and ensuring that where visible, the wind farm composition would appear as a simple and cohesive development. Following a series of design workshops, Turbine 7 has been reduced to 180m to reduce adverse effects on nearby residential receptors.
- 3.8.2. The proposed turbines have been cohesively located to limit their visibility where possible, as well as reducing the horizontal and vertical extent of the Proposed Development from key views and particularly when perceived from nearby settlements, residential properties, and sensitive receptors. The height of the turbines is not considered to be over-scaled considering the relatively large-scale landscape setting of its location. The scale of the turbines can be accommodated in this location, creating a simple, cohesive, balanced and clear design and visual composition that seeks to minimise excessive 'turbine clutter' in the form of uneven gaps / overlaps and outlying turbines where possible. The turbines would be a uniform, plain, semi-matte grey colour to reduce their contrast with the background sky and minimise their reflectivity.
- 3.8.3. The single storey substation building would be traditional blockwork construction and faced in stone with a slate roof to tie in with the existing character of the local area. 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.
- 3.8.4. Where necessary, compensatory tree planting would be implemented on Site in accordance with PPW12, except where Ancient Woodland is potentially lost as this cannot be 're-planted'. The specific issue of Ancient Woodland is detailed further in Section 5.6 below.
- 3.8.5. Compensatory planting in relation to tree groups requiring removal would also be implemented and would be equivalent to a minimum of 1,600 trees per hectare for broadleaves and 2,500 tree per hectare for conifers (consistent with planting ratios established in PPW12, paragraph 6.4.42).

Planting would utilise species that are reflective of the areas lost and planting locations would be chosen so as to ensure healthy establishment, ensuring unconstrained, long-term growth to optimise environmental benefits. A management regime would be applied to all retained and newly created habitats to ensure their successful establishment and long-term benefit.

- 3.8.6. Following the completion of the construction of the Proposed Development, the construction compound, laydown areas, and cable trenches would be reinstated. Site tracks would be softened with shoulders graded with excavated subsoil and completed with the original topsoil or turfs where available. The temporary construction compound and laydown areas will be fully reinstated with stored turfs or excavated soil and / or re-planted to accord with the Site Restoration Plan which will be submitted to PCC for approval prior to the commencement of the construction works secured by planning condition.

3.9 ACCESS

- 3.9.1. The proposed principal point of access into the Site would begin at an existing road junction of the A470 with the B4568, and head north via a new access road to be constructed as part of the Proposed Development. Construction HGV traffic will route along the A470 trunk road from either the north or south, before turning onto the B4568 and then onto the proposed new access road between the B4568 and the existing unnamed road to the north leading to the entry point to the Energy Park Site.
- 3.9.2. The Abnormal Indivisible Load (AIL) delivery route will be confirmed within the final Construction Traffic Management Plan (CTMP) and associated AIL route survey report secured by planning condition. The current proposed route is via the Birkenhead Port to the proposed new access route from the B4568 into the Site using the proposed new access route and the unnamed road to the north of the proposed access road.
- 3.9.3. It is not anticipated that any full road closures will be required for the Proposed Development, and should this be necessary it will be consulted on and agreed with the highway authority.
- 3.9.4. During the construction phase, standard highway safety protocols will be followed and complied with in accordance with the recommendations outlined in the submitted Outline Construction Traffic Management Plan (**ES Appendix 12B**). Likely mitigation measures to minimise the impact of construction traffic include implementation of standard working hours (with potential requirements for extended working hours for certain activities), the use of escort vehicles to accompany AIL deliveries, timing restrictions on vehicle movements, temporary traffic signage, banksperson, wheel/street cleaning, and the undertaking of road condition surveys. Further detailed mitigation measures will be set out within the final CTMP at the appropriate time prior to construction commencement.
- 3.9.5. The new access road will be approximately 3.1km in length, 5.5m wide and 0.5m deep, where it joins an existing road via an offline track junction to the east of Wtrawen. Approximately 1.5km length of this existing road will be upgraded and reprofiled to a width of 4.5m where it reaches the entry point to the wind farm site. Where upgrades to the existing access road are required, the oversail clearance of the trailers used to deliver turbines to Site will ensure no direct impacts to hedgerows and old stone walls occur. Any features above 3m in height, such as trees and utility poles, will require removal (trees) or re-location. The design was developed to accommodate the entry of AILs transporting the turbine blades/tower into the Site.

- 3.9.6. The access road alignment has undergone multiple iterations, driven by engineering considerations and the need to avoid or minimise impacts on sensitive environmental receptors, such as Ancient Woodland and areas of peaty soils as far as practicable.
- 3.9.7. Notwithstanding this, a short section of an existing historic track (pre-dating the Ancient Woodland designation), which would form part of the proposed access road, passes through an area designated as Ancient Woodland at Coed yr Henblas. This may be subject to further widening as part of the Proposed Development, to account for an earthworks extent of up to 15m wide to facilitate construction traffic and deliveries. This will be reduced as far as possible in this location to minimise impacts on Ancient Woodland. However, it could potentially result in a maximum of 0.43 ha permanent loss of Ancient Woodland.
- 3.9.8. Chapter 12 (Traffic and Transport) of the ES concludes that the Proposed Development will not result in significant impacts on the local road network, subject to the implementation of measures set out in the Outline CTMP (**ES Appendix 12B**). The movement of AILs would be managed in accordance with relevant legislation, guidance, and highway authority requirements to minimise impacts, in consultation with the highway authority and other key stakeholders.

3.10 MOVEMENT

- 3.10.1. The wind turbines, substation and other infrastructure on site will only be accessed by construction personnel and maintenance teams who will periodically attend the site to service and maintain turbines. It is not designed to provide access for members of the public, irrespective of their level of mobility. Accordingly, specific provision for disabled access has not been incorporated into the design, and the new access road has not been designed to enable access for all.
- 3.10.2. Given the Site's rural location, it is anticipated that the primary mode of transport for construction workers would be private vehicles. Additionally, the distance to the established cycle network and lack of footway connections to local amenities means that travel by alternative sustainable modes is unlikely to be chosen. As set out in the Outline CTMP (**ES Appendix 12B**), alternative modes of transport to the Site are encouraged and it is anticipated that sustainable travel would be best achieved through the promotion of car sharing/minibus use.
- 3.10.3. In terms of public access to the Site, there are a number of PRowS within and adjacent to the Site and two areas of Common Land border the eastern boundary of the Site. This will be managed through appropriate measures as set out in the Outline CEMP and Outline Public Rights of Way Management Plan which will cover the duration of the construction works. After this point, there would be no impact on the PRow.

3.11 ENVIRONMENTAL SUSTAINABILITY

- 3.11.1. The Proposed Development would result in an indirect reduction in atmospheric greenhouse gas emissions through renewable energy generation, supporting the transition away from fossil fuels and making a positive contribution to the achievement of carbon budgets and emissions reduction targets in Wales and the UK. It is anticipated that the Proposed Development could result in a total carbon saving of approximately 4.4 million tonnes over the proposed 40-year operational life.
- 3.11.2. As set out in Sections 3.2 to 3.8, the design of the Proposed Development reflects an optimal wind turbine layout that balances the objectives of maximising energy resource with the need to minimising land take and the environmental impacts.

- 3.11.3. While the worst-case assumption is that all stone would need to be imported to the Site from existing quarries, the ongoing assessment of potential borrow pit locations will determine whether suitable stone can be sourced from on-site borrow pits. Where feasible, this would minimise the volume of stone imported to the Site from external sources.
- 3.11.4. Appropriate site waste management practices would be implemented by the appointed contractor for the construction works for the Proposed Development which are set out in the Outline CEMP. The contractor would provide method statements for the collection, storage and transportation of materials / waste. Where appropriate, materials / waste would be segregated on the Site in skips or bunded tanks and transported to appropriate sites or recycling facilities.

3.12 COMMUNITY SAFETY

- 3.12.1. The Proposed Development would be delivered in a safe manner and would minimise opportunities for crime through the implementation of appropriate site security measures. The construction compound would be lit with security lighting, which would face inwards to minimise light pollution. The construction compound may be enclosed within a security fence around the perimeter of the substation and the access to electrical compounds would be via a locked access gate. The control building compound would also be fenced, with the details of the fencing to be agreed with PCC.
- 3.12.2. A number of Public Rights of Ways (PRoWs) and Open Access Land (OAL) would be impacted by the Proposed Development. Overarching mitigation measures, as set out in the Outline Public Rights of Way Management Plan (**ES Appendix 12A**), including inspection and maintenance, construction activities, and signage, would be implemented for all PRoWs (and where relevant for OAL) affected by the Proposed Development during construction phase. Specific PRoW mitigation measures will be detailed within the Final Public Rights of Way Management Plan and will be subject to agreement with PCC.

4 POLICY CONTEXT

4.1 INTRODUCTION

- 4.1.1. There is a range of legislative, regulatory and policy imperatives that embed the need to reduce carbon emission and support the need for additional renewable energy capacity. These span International, National and Local Policy. This section sets out this context.
- 4.1.2. As a renewable energy project, policy on Energy is considered firstly, followed by the key planning policies relevant to the consideration of the Proposed Development at the UK, Wales and local level.

4.2 ENERGY POLICY

INTERNATIONAL AGREEMENTS

Paris Agreement 2015

- 4.2.1. The United Nations Framework Convention on Climate Change (UNFCCC) is the major international body responsible for managing climate change and carbon emissions. In 2015, parties to the UNFCCC adopted the Paris Agreement⁶, the aims of which are stated as:

“This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: a) Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change; and (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production.”

- 4.2.2. This agreement sets targets for countries’ greenhouse gas (GHG) emissions, but these are not legally binding or enforceable.

Glasgow Climate Pact 2021

- 4.2.3. Conference of the Parties (COP 26) under the UNFCCC⁷ held in Glasgow in November 2021, resulted in almost 200 countries agreeing on: the acceleration of action on climate change this decade to reduce emissions (mitigation); helping those already impacted by climate change (adaption); enabling countries to deliver on their climate goals (finance); and working together to deliver even greater action (collaboration). This agreement is in the form of the Glasgow Climate Pact which reaffirms the long-term goal to limit global warming to 1.5°C above pre-industrial levels and resolves to pursue efforts to achieve this, recognising that limiting global warming to 1.5°C *“requires rapid, deep and sustained reductions in global greenhouse gas emissions, including*

⁶ United Nations Framework Convention on Climate Change (UNFCCC) (2015). Paris Agreement. [Online] Available at: https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf [Accessed June 2026].

⁷ United Nations Framework Convention on Climate Change (2021). COP26 The Glasgow Climate Pact. [Online] available at: <https://ukcop26.org/wp-content/uploads/2021/11/COP26-Presidency-Outcomes-The-Climate-Pact.pdf> [Accessed June 2026].

*reducing global CO₂ emissions by 45% by 2030 relative to the 2010 level and to net zero around mid-century, as well as deep reductions in other greenhouse gases*⁸.

COP 28 (2023)

- 4.2.4. Held in December 2023 in the UAE, this COP incorporated the first 'Global Stocktake' as previously agreed to be undertaken in the 2015 Paris Agreement. The global stocktake reemphasised that the current 1.5°C target by 2030 cannot be met through the current Nationally Determined Contribution ambition. This highlighted the need for urgent concerted action to achieve the 1.5°C target by 2030⁹.

COP 29 (2024)

- 4.2.5. Held in Azerbaijan in November 2024, this COP was focussed on financing for developing countries to meet their climate obligations. Despite this, the announcement of the UK 2035 Nationally Determined Contribution (NDC) emissions reduction target of at least 81% below 1990 levels demonstrated the need for further installation of renewable energy in order to meet this new ambitious target¹⁰.

COP 30 (2025)

- 4.2.6. The most recent (at time of the planning submission for the Proposed Development) COP aimed to move from pledges to action, branded as the "COP of implementation". A text which set out actions on maintaining plans to combat climate change in line with the 2015 Paris Agreement was agreed, highlighting the importance of implementing projects and actions which to reduce carbon emissions¹¹.

UK ENERGY LEGISLATION AND POLICY

Energy Act (2008, 2011, 2013, 2016)

- 4.2.7. The Energy Act 2008¹² implemented the legislative aspects of the 2007 Energy White Paper. The content of the Bill included strengthening the Renewables Obligation to drive greater and more rapid deployment of renewables in the UK. The Energy Act 2011¹³ sought to increase investment in energy efficiency whilst the Energy Act 2013¹⁴, put in place measures to reform the UK energy market to attract investment. The Energy Act 2016¹⁵ formally established the Oil and Gas Authority as a regulator for that sector whilst it signalled the closure of the Renewables Obligation for onshore wind.

⁸ UNFCCC (2021). Glasgow Climate Pact. [Online] Available at: <https://unfccc.int/documents/310475> [Accessed June 2026].

⁹ UNFCCC (2026). Global Stocktake. [Online] Available at: <https://unfccc.int/topics/global-stocktake> [Accessed June 2026].

¹⁰ UNFCCC (2025). The United Kingdom's Nationally Determined Contribution (NDC) 2035. [Online] Available at: <https://unfccc.int/sites/default/files/2025-01/UK%27s%202035%20NDC%20ICTU.pdf> [Accessed June 2026].

¹¹ UNFCCC (2026). Letter from the COP30 Presidency. [Online] Available at: https://unfccc.int/sites/default/files/resource/27012026_cop30_12_th_letter_en.pdf [Accessed June 2026].

¹² UK Government (2008) Energy Act 2008. [Online] Available at: <https://www.legislation.gov.uk/ukpga/2008/32/contents> [Accessed June 2026]

¹³ UK Government (2011) Energy Act 2011. [Online] Available at: <https://www.legislation.gov.uk/ukpga/2011/16/contents> [Accessed June 2026]

¹⁴ UK Government (2013) Energy Act 2013. [Online] Available at: <https://www.legislation.gov.uk/ukpga/2013/32/contents> [Accessed June 2026]

¹⁵ UK Government (2016) Energy Act 2016. [Online] Available at: <https://www.legislation.gov.uk/ukpga/2016/20/contents> [Accessed June 2026]

Climate Change Act (2008)

- 4.2.8. The Climate Change Act 2008 set out the first binding UK target for a reduction in Green House Gas (GHG) emissions with an 80% reduction. The Climate Change Act 2008 (2050 Target Amendment) Order 2019 came into force on 27 June 2019¹⁶. This amended the legally binding target to reduce GHG emissions set in section 1 of the Climate Change Act 2008 from 80% to 100%, or net zero emissions. The Act requires that carbon budgets are set for five-year periods – the latest update requires a 78% in emissions below 1990 levels by 2035.

Net Zero Strategy: Build Back Greener (2021)

- 4.2.9. The Net Zero Strategy: Build Back Greener¹⁷ provides the overarching UK wide strategy to reach the UK's target for net zero emissions in 2050. The strategy sets out a delivery pathway to achieve net zero in 2050 with policies and proposals to keep the UK on track for emission reduction targets to up to the sixth carbon budget covering the period 2033-2037. Amongst its policies, the strategy seeks to fully decarbonise the UK power system by 2035. Key to achieving this is the commitment to *“transform [the UK's] energy system away from fossil fuels to low carbon sources of energy, such as renewable electricity generated in the UK”* (page. 39).

British Energy Security Strategy (2022)

- 4.2.10. The Strategy¹⁸ notes that external factors have led to significant increases in energy costs with implications for both householders and industry. It recognises that onshore wind is one of the cheapest forms of renewable power and states that in Wales, UK government will support the work of Welsh Government, Ofgem and networks to improve grid connections.

Clean Power Action Plan 2030: A new era of clean electricity (2024)

- 4.2.11. The Clean Power 2030 Action Plan¹⁹ was published by the Department for Energy Security and Net Zero (DESNZ) in December 2024 and sets out the Government's pathway to delivering a clean power system by 2030. It identifies onshore wind as one of the renewable energy sources requiring mass deployment and emphasises accelerated project delivery, grid connection reform and the expansion of electricity network infrastructure.
- 4.2.12. The Clean Power 2030 Action Plan identifies a target range of 27 – 29 GW of operational onshore wind capacity by 2030, compared with an installed capacity of 14.2 GW in 2024.

¹⁶ UK Government (2019). The Climate Change Act 2008 (2050 Target Amendment) Order 2019. [Online] Available at: <https://www.legislation.gov.uk/ukxi/2019/1056/contents/made> [Accessed April 2026].

¹⁷ UK Government (2021). Net Zero Strategy: Build Back Greener. [Online] Available at: <https://assets.publishing.service.gov.uk/media/6194dfa4d3bf7f0555071b1b/net-zero-strategy-beis.pdf> [Accessed April 2026].

¹⁸ UK Government (2022) British Energy Security Strategy. [Online] Available at: <https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy> [Accessed April 2026]

¹⁹ UK Government (2024) Clean Power 2030 Action Plan: A New Era of Clean Electricity – Main Report. [Online] Available at: <https://assets.publishing.service.gov.uk/media/677bc80399c93b7286a396d6/clean-power-2030-action-plan-main-report.pdf> [Accessed July 2026]

WELSH ENERGY LEGISLATION AND POLICY

- 4.2.13. The Welsh Government recognises the importance that energy plays in its economic, social, environmental and cultural wellbeing and the threats to that wellbeing from climate change. The Welsh Government has made clear its commitment to renewable energy sources as a way of meeting commitments to reduce carbon emissions as demonstrated by the declaration of a climate emergency in April 2019 and nature emergency in June 2021.

Energy Wales: A Low Carbon Transition (2012)

- 4.2.14. This strategy²⁰ states that it is the Welsh Government's ambition to create a sustainable, low carbon economy for Wales. The document highlights the importance of energy to Wales, stating it *'underpins our entire way of life, but understands that the system is changing, and a low carbon economy will provide sustainable opportunities'*.
- 4.2.15. It states Wales has significant onshore and offshore potential in wind resources and other low carbon resources therefore it is well placed to take advantage of a low carbon economy.
- 4.2.16. The Welsh Government wants to provide leadership on the energy agenda in Wales. It aims to improve a number of areas to ensure the energy agenda progresses to a more low carbon format. This includes unlocking the energy in the sea, energy efficiency, delivering through an energy programme, implementing 21st century energy infrastructure and improving the planning and consent regime.
- 4.2.17. Energy Wales: A Low Carbon Transition Delivery Plan²¹ (2014, updated 2019) sets out three key priorities for the future:
- Providing leadership to ensure that Wales has a clear and consistent framework for investors, regulators and decision makers, and the infrastructure, coordination and stability needed to ensure that Wales is a great place to do business;
 - maximising benefit for Wales in terms of jobs and wider economic benefit at every stage of development and operation whilst also ensuring that our communities derive long term benefits; and
 - acting now for Wales's long term energy future through support for innovation, research, development, and commercialisation in the areas that offer the greatest potential for long-term benefit for Wales.

Wellbeing of Future Generations (Wales) Act 2015

- 4.2.18. This Act²² places a duty on public bodies to carry out sustainable development and defines sustainable development as *"The process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the well-being goals."* The Act also puts in place seven well-being goals to help ensure that public bodies are all working towards the same vision of a sustainable Wales. The wellbeing goals are:

²⁰ Welsh Government (2012) Energy Wales: A Low Carbon Transition. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2019-07/energy-wales-a-low-carbon-transition.pdf> [Accessed April 2026]

²¹ Welsh Government (2019) Energy Wales: A Low Carbon Transition Delivery Plan. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2019-07/energy-wales-a-low-carbon-transition.pdf> [Accessed April 2026]

²² Welsh Government (2015) Wellbeing of Future Generations (Wales) Act 2015. [Online] Available at: <https://www.legislation.gov.uk/anaw/2015/2/contents> [Accessed April 2026]

- A prosperous Wales;
- A resilient Wales;
- A healthier Wales;
- A more equal Wales;
- A Wales of cohesive communities;
- A Wales of vibrant culture and thriving Welsh language; and
- A globally responsible Wales.

4.2.19. The wellbeing goals act together to ensure outcomes across economic, environmental, social and cultural sustainability strands. The achievement of the wellbeing goals informs all policy and decision making. The wellbeing goal – achieving a prosperous Wales – specifically recognises the benefits of developing a low carbon society that recognises the limits of the environment and uses resources efficiently.

Environment (Wales) Act 2016

4.2.20. The Environment (Wales) Act 2016 places a duty on the Welsh Ministers to reduce GHG emissions in Wales by at least 100% in 2050²³. The target of net zero emissions (rather than 80% as originally stated in the Act) reflects the Welsh Government's acceptance of the independent Climate Change Committee's (CCC) recommendation that Wales could achieve a net zero reduction in emissions, which had previously been considered unfeasible. The Environment (Wales) Act 2016 requires Ministers to set a series of interim targets and five-year carbon budgets to achieve the 2050 target. For 2021-26 this stands at 37% reduction compared to the baseline and for 2026-30 this is set at an average of 58% reduction.

4.2.21. Section 6 of the Act places a duty on public authorities so that they must “*seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions.*”

4.2.22. Section 7 of the Act places a duty on the Welsh Ministers to “*take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section, and encourage others to take such steps.*”

Energy Generation Targets for Wales

4.2.23. In September 2017, the Welsh Government Cabinet Secretary for Environment and Rural Affairs announced to the Welsh Assembly that the Welsh Government was setting a target for Wales to generate 70% of its electricity consumption from renewable energy by 2030²⁴.

4.2.24. In July 2023, the Welsh Government announced an updated target to meet 100% of its electricity needs from renewable sources by 2035²⁵.

²³ UK Government (2016). The Environment (Wales) Act 2016. [Online] Available at: <https://www.legislation.gov.uk/anaw/2016/3/contents> [Accessed April 2026].

²⁴ Welsh Government (2017) Energy Generation in Wales. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2019-06/energy-generation-2017-report.pdf> [Accessed April 2026]

²⁵ Welsh Government (2023) Energy Generation in Wales. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2025-02/energy-generation-in-wales-2023.pdf> [Accessed April 2026]

Climate Emergency

- 4.2.25. In April 2019, the Welsh Government declared a climate emergency²⁶ and have a target of net zero emissions no later than 2050, with interim targets of a 63% reduction on the 1990 baseline by 2030, and 89% reduction by 2040. The Welsh Ministers must publish a report setting out their policies and proposals for meeting the carbon budget for their relevant period. The first such report, Prosperity for All: A low carbon Wales²⁷ (2019) seeks to achieve these reductions by reducing the use of fossil fuels for power generation, and to promote and accelerate the deployment of renewable energy generation.

Prosperity For All: A Low Carbon Wales (2019)

- 4.2.26. This policy document outlines the Welsh Government's strategic approach to reducing carbon emissions and transitioning to a low carbon economy. It identifies 100 policies and proposals aimed at meeting Wales's carbon budget and emission reduction targets. It notes that Wales hosts a disproportionately high proportion of the UK's gas power generation capacity. It states that *"the benefits of reducing emissions will be felt widely and contribute to many of our other priorities, leading to improved health and well-being and opening up new economic opportunities"*.
- 4.2.27. Two policy recommendations are most relevant to the Proposed Development:
- Policy 31 – *"The reduction of electricity generation from fossil fuels must be accompanied by increases in low carbon generation"*; and
 - Policy 32 – *"The bulk of new generating capacity should be provided from the lowest cost technologies, as recommended by the UKCCC (who stated that onshore wind was the "cheapest source of electricity") and a range of other industry sources, in order to keep the cost of energy bills down."*

Nature Emergency

- 4.2.28. In June 2021, the Welsh Government declared a nature emergency²⁸. This was in recognition of human induced declines in biodiversity, noting that 18% of 3,897 species assessed in Wales are threatened with extinction. The nature emergency declaration was embedded into the Programme for Government for the Sixth Senedd.

Net Zero Wales (2021)

- 4.2.29. The Environment (Wales) Act 2016 requires the publication of a report setting out policies and proposals for each carbon budget period. In October 2021, the Welsh Government published Net Zero Wales: Carbon Budget 2 (2021 to 2025)²⁹ which built upon the previous Prosperity for All: A Low Carbon Wales. This sets out a large number of policies for action in the five-year carbon budget period and proposals for action in the longer term to ensure that Wales meets the required average reduction of 37% in GHG emissions against the baseline and is on track to achieve net zero emissions in 2050.

²⁶ Welsh Government (2019) Welsh Government makes climate emergency declaration. [Online] Available at: <https://www.gov.wales/welsh-government-makes-climate-emergency-declaration> [Accessed April 2026]

²⁷ Welsh Government (2019) Prosperity for All: A Low Carbon Wales. [Online] Available at: https://www.gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan_1.pdf [Accessed April 2026]

²⁸ Welsh Government (2021) Plenary – Sixth Senedd. [Online] Available at: <https://record.senedd.wales/Plenary/12320?lang=en-GB> [Accessed April 2026]

²⁹ Welsh Government (2021) Net Zero Wales: Carbon Budget 2 (2021 to 2025). [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2021-10/net-zero-wales-carbon-budget-2-2021-25.pdf> [Accessed April 2026]

- 4.2.30. The Plan reinforces the importance of delivering energy generation from renewable sources to meet the energy needs of Wales. The plan plays an important role in meeting challenges posed by the climate emergency declared by the Welsh Government in April 2019.

Environment (Principles, Governance and Biodiversity Targets) (Wales) Act 2026

- 4.2.31. Passed in April 2026, the Environment (Principles, Governance and Biodiversity Targets) (Wales) Act 2026³⁰ gives powers to the Welsh Ministers to set targets in relation to biodiversity in Wales.
- 4.2.32. Targets must be set in respect to at least one of four priority areas, as set out below:
- Reducing the risk of the extinction of native species;
 - The effective management of ecosystems;
 - Reducing pollution; and/or
 - The quality of evidence to inform decisions relating to biodiversity, access to that evidence and its use and application.
- 4.2.33. Biodiversity targets have not yet been set in Wales using this framework.

4.3 WELSH NATIONAL PLANNING POLICY

FUTURE WALES: THE NATIONAL PLAN 2040

- 4.3.1. *Future Wales: The National Plan 2040* (referred to as Future Wales from here on)³¹ was adopted in February 2021. Future Wales sets out national policy and is the highest tier of the development plan against which DNS applications are assessed, as denoted under s.38(6) of the Planning and Compulsory Purchase Act 2004 (PCPA). Future Wales includes a range of high-level policies which are intended to shape local authority development plans and inform decision making on applications for DNS.
- 4.3.2. It should be noted that although the LDP has to be in general conformity with Future Wales (s.62(3A)), in the event of conflict the more recent policy prevails (s.38(5)). At present the adopted local development plan for PCC was adopted in April 2018. Therefore, Future Wales is the most recent policy and should prevail in the event of any potential conflict.
- 4.3.3. The intention of Future Wales is to provide a clear, long term spatial direction for Government policy, action and investment in Wales. It sets out a framework for addressing key national priorities through the planning system, such as decarbonisation (page 46):
- 4.3.4. *“Future Wales together with Planning Policy Wales will ensure the planning system focuses on delivering a decarbonised and resilient Wales through the places we create, the energy we generate, the natural resources and materials we use and how we live and travel”.*
- 4.3.5. Future Wales sets out 11 Outcomes to be achieved through the planning system. Outcome 11 – ‘A Wales where people live in places which are decarbonised and climate resilient’ states that *“The challenges of the climate emergency demand urgent action on carbon emissions and the planning system must help Wales lead the way in promoting and delivering a competitive, sustainable decarbonised society”.*

³⁰ Welsh Government (2026) Environment (Principles, Governance and Biodiversity Targets) (Wales) Act 2026. [Online] Available at: <https://www.legislation.gov.uk/asc/2026/4/contents/enacted> [Accessed April 2026]

³¹ Welsh Government (2021) Future Wales: The National Plan 2040. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2021-02/future-wales-the-national-plan-2040.pdf> [Accessed April 2026]

4.3.6. Future Wales includes two specific policies that set out the criteria against which renewable energy developments will be assessed and DNS applications will be determined. These, described in further detail below, are:

- Policy 9 – Resilient Ecological Networks and Green Infrastructure;
- Policy 17 – Renewable and Low Carbon Energy and Associated Infrastructure; and
- Policy 18 – Renewable and Low Carbon Energy Developments of National Significance.

Policy 9 – Resilient Ecological Networks and Green Infrastructure

4.3.7. Policy 9 seeks to ensure the enhancement of biodiversity, the resilience of ecosystems and the provision of green infrastructure by identifying and safeguarding ecological networks important for climate change adaptation, habitat protection, restoration and creation, species protection and the delivery of ecosystem services. It also seeks to maximise opportunities for existing and potential green infrastructure through placemaking and the use of nature-based solutions to support sustainable growth, ecological connectivity, social equality and well-being. Action towards securing the maintenance and enhancement of biodiversity (to provide a net benefit), the resilience of ecosystems and green infrastructure assets must be demonstrated as part of development proposals through innovative, nature-based approaches to site planning and the design of the built environment.

4.3.8. The Green Infrastructure Statement submitted in support of the planning application sets out how green infrastructure has informed and been incorporated into the design of the Proposed Development and demonstrates how the step-wise approach has been applied. It also identifies the multifunctional benefits delivered by the Proposed Development and its contribution to the sustainable management of natural resources.

Policy 17 – Renewable and Low Carbon Energy and Associated Infrastructure

4.3.9. Policy 17 states that “*The Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs*” and that decision makers are required to give “*significant weight*” to the need to meet international commitments and Wales’s target to generate 70% of energy from renewables by 2030. Whilst the policy text has not been updated, the Welsh Government increased this commitment in 2023 to 100% by 2035 as part of the Wales’ Renewable Energy Targets³².

4.3.10. As part of this policy, the Welsh Government has also modelled the likely impact of wind turbines (and solar) on the landscape. This resulted in the designation of ten Pre-Assessed Areas (PAAs) for large-scale onshore wind where the Welsh Government considers that the likely impact upon the landscape is such that it is capable of accommodating development in an acceptable way. Within these areas there is a national policy presumption in favour of large-scale (up to 250m) wind energy development, subject to performance against criteria in Policy 18.

The Site is located entirely within PAA 3 for Wind Energy, as shown in Plate 4-1 below. The approximate location of the site is indicated with a purple star.

³² Welsh Government (2023b) Written Statement: Publication of Summary of Responses to the Consultation on Wales’ Renewable Energy Targets [Online]. Available at: Written Statement: Publication of Summary of Responses to the Consultation on Wales’ Renewable Energy Targets (14 July 2023) | GOV.WALES

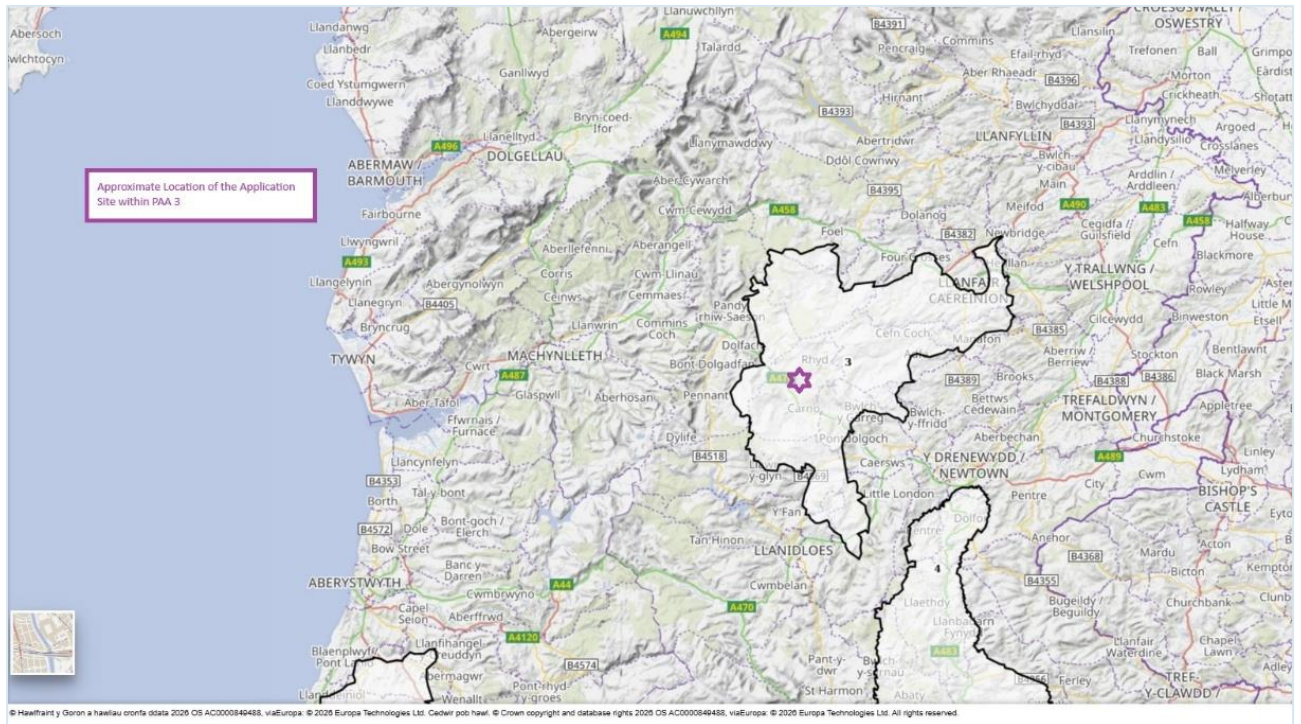


Plate 4-1 – Location of Site relative to PAA (Source: Data Map Wales)

Policy 18 – Renewable and Low Carbon Energy Developments of National Significance

4.3.11. As a development qualifying as a DNS, Policy 18 sets out the following criteria that are applicable to the Proposed Development, to ensure no unacceptable adverse impacts:

- *Outside of the Pre-Assessed Areas for wind developments, and everywhere for all other technologies, the proposal does not have an unacceptable adverse impact on the surrounding landscape (particularly on the setting of National Parks and Areas of Outstanding Natural Beauty);*
- *There are no unacceptable adverse visual impacts on nearby communities and individuals;*
- *There are no adverse effects on the integrity of Internationally designated sites (including National Site Network sites and Ramsar sites) and the features for which they have been designated (unless there are no alternative solutions, Imperative Reasons of Overriding Public Interest (IROPI) and appropriate compensatory measures have been secured);*
- *There are no unacceptable adverse impacts on national statutory designated sites for nature conservation (and the features for which they have been designated), protected habitats and species;*
- *The proposal includes biodiversity enhancement measures to provide a net benefit for biodiversity;*
- *There are no unacceptable adverse impacts on statutorily protected built heritage assets;*
- *There are no unacceptable adverse impacts by way of shadow flicker, noise, reflected light, air quality or electromagnetic disturbance;*

- *There are no unacceptable impacts on the operations of defence facilities and operations (including aviation and radar) or the Mid Wales Low Flying Tactical Training Area (TTA-7T);*
- *There are no unacceptable adverse impacts on the transport network through the transportation of components or source fuels during its construction and/or ongoing operation;*
- *The proposal includes consideration of the materials needed or generated by the development to ensure the sustainable use and management of resources;*
- *There are acceptable provisions relating to the decommissioning of the development at the end of its lifetime, including the removal of infrastructure and effective restoration; and*
- *The cumulative impacts of existing and consented renewable energy schemes should also be considered.*

PLANNING POLICY WALES EDITION 12 (2024)

- 4.3.12. Planning Policy Wales 12 (PPW12)³³ sets out Wales's land use planning policies. PPW12 is a material consideration in the determination of planning applications, but does not form part of the statutory development plan. The latest edition was adopted in February 2024.
- 4.3.13. PPW12 promotes sustainable development, renewable energy and tackling climate change, with five key Planning Principles (p.17) to achieve development in the best place:
- **Growing our economy in a sustainable manner** - the planning system should enable development which contributes to long term economic well-being, making best use of existing infrastructure and planning for new supporting infrastructure and services;
 - **Making best use of resources** - The efficient use of resources, including land, underpins sustainable development;
 - **Facilitating accessible and healthy environments** - Our land use choices and the places we create should be accessible for all and support healthy lives. High quality places are barrier-free and inclusive to all members of society;
 - **Creating and sustaining communities** - The planning system must work in an integrated way to maximise its contribution to well-being. It can achieve this by creating well-designed places and cohesive rural and urban communities which can be sustained by ensuring the appropriate balance of uses and density, making places where people want to be and interact with others; and
 - **Maximising environmental protection and limiting environmental impact** - Natural, historic and cultural assets must be protected, promoted, conserved and enhanced. Negative environmental impacts should be avoided in the wider public interest.
- 4.3.14. PPW12 notes in paragraph 3.30 that *"the planning system plays a key role in tackling the climate emergency through the decarbonisation of the energy system and the sustainable management of natural resources. The transition to a low carbon economy not only brings opportunities for clean growth and quality jobs, but also has wider benefits of enhanced places to live and work, with clean air and water and improved health outcomes"*.

³³ Welsh Government (2024) Planning Policy Wales. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2024-07/planning-policy-wales-edition-12.pdf> [Accessed April 2026]

- 4.3.15. In paragraph 3.33 of PPW12, it is noted that climate change is central to PPW, both due to the effects and how the planning system can help mitigate and adapt to its impacts. The significant challenges of climate change will have *“impacts felt at the local level presenting a significant risk to people, property, infrastructure and natural resources. We need to plan for these impacts, reducing the vulnerability of our natural resources and build an environment which can adapt to climate change. The planning system plays a significant role in managing this risk”*.
- 4.3.16. Paragraph 5.7.7 sets out eight bullet points for the planning system to maximise benefits of renewable and low carbon energy:
- *“Integrate development with the provision of additional electricity grid network infrastructure;*
 - *Optimise energy storage;*
 - *Facilitate the integration of sustainable building design principles in new development;*
 - *Optimise the location of new developments to allow for efficient use of resources;*
 - *Maximise renewable and low carbon energy generation;*
 - *Maximise the use of local energy sources, such as district heating networks;*
 - *Minimise the carbon impact of other energy generation; and*
 - *Move away from the extraction of energy minerals, the burning of which is carbon intensive.”*
- 4.3.17. PPW12 reaffirms the targets Welsh Government sets to achieve 70%, now 100%, of electricity consumption from renewable sources, with paragraph 5.7.15 noting that *“The planning system has an active role to help ensure the delivery of these targets, in terms of new renewable energy generating capacity and the promotion of energy efficiency measures in buildings”*.
- 4.3.18. As stated in paragraph 5.9.1 of PPW12, *“local authorities should facilitate all forms of renewable and low carbon energy development and should seek cross department cooperation to achieve this. In doing so, planning authorities should seek to ensure their area’s full potential for renewable and low carbon energy generation is maximised and renewable energy targets are achieved”*. This highlights the priority level that local authorities should consider for renewable energy planning applications.
- 4.3.19. PPW12 indicates that wind energy is a key source of renewable energy available to tackle energy production challenges. The PAAs have been modelled for the impact to landscape and are *“capable of accommodating development in an acceptable way”*. PAAs hold great importance within planning documents, as *“Local planning authorities should not seek to amend the Pre-Assessed Areas within their boundaries as they form part of the development plan. LDPs may seek to define areas within the Pre-Assessed Areas for other land uses (including renewable development sites of below 10MW), although any local policy and planning decisions should not prejudice the ability for large scale wind developments to come forward in the Pre-Assessed Areas”*.
- 4.3.20. Chapter 6 of PPW12 requires a net benefit for biodiversity to be provided as part of development proposals in accordance with the stepwise approach and the submission of a Green Infrastructure Statement (GIS) with planning applications. This is highlighted in paragraph 6.4.3, which states *“development needs to take place and some biodiversity may be impacted, the planning system should ensure that overall there is a net benefit for biodiversity and ecosystem resilience”*. As part of this planning application, a GIS has been prepared and included as part of the DNS application (Document Reference: 62282400_CH01_001).

- 4.3.21. PPW12, paragraph 6.4.16, notes that “All development must deliver a net benefit for biodiversity and ecosystem resilience from the baseline state (proportionate to the scale and nature of the development proposed). Even if the biodiversity value has been maintained, there must still be a pro-active process to look for and secure enhancement through the design and implementation of the development”. This net benefit is defined, as in paragraph 6.4.5, as “the concept that development should leave biodiversity and the resilience of ecosystems in a significantly better state than before, through securing immediate and long-term, measurable and demonstrable benefit, primarily on or immediately adjacent to the site”.
- 4.3.22. PPW12 also sets out the stepwise approach to take during planning development to assess the impacts on habitats and species, from a best-case scenario to a minimum standard, as shown in **Plate 4-2**.

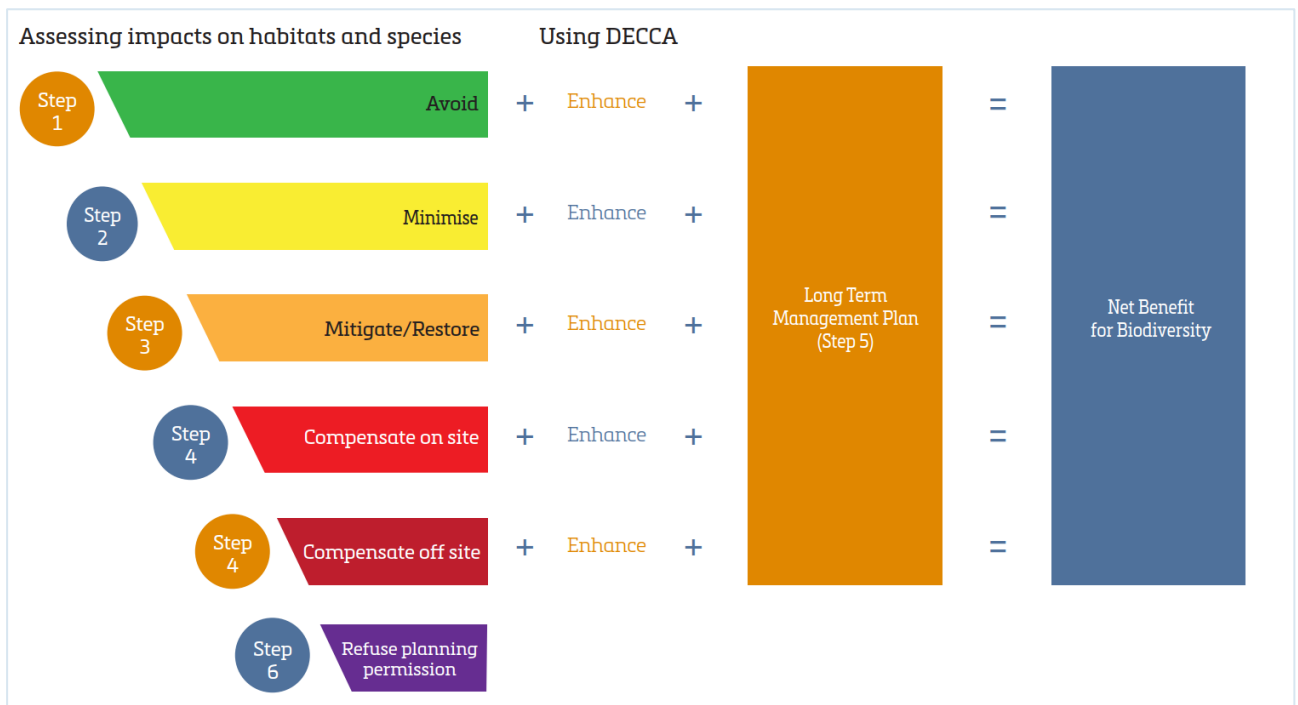


Plate 4-2 – NBB Stepwise Approach

- 4.3.23. The stepwise approach aims to maintain and enhance biodiversity, build resilient ecological networks and delivery net benefit for biodiversity by ensuring that any adverse environmental effects are firstly avoided, then minimised, mitigated, and as a last resort compensated for. Enhancement must be secured by delivery of a biodiversity benefit, over and above that required to mitigate or compensate for any negative impact.
- 4.3.24. The consideration of the stepwise approach in the design process for the Proposed Development is further elaborated in the Green Infrastructure Statement, which will be submitted as part of the DNS application.

TECHNICAL ADVICE NOTES

- 4.3.25. The Welsh Government has produced a number of Technical Advice Notes (TAN), which supplement PPW12, by providing more specific guidance for planning issues. The TANs that are deemed relevant to wind energy development are summarised as follows:

Technical Advice Note 5: Nature Conservation and Planning (2009)

- 4.3.26. This TAN³⁴ provides guidance on how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. It also provides advice on development affecting designated sites and habitats, in addition to protected or priority habitats and species.

Technical Advice Note 6: Planning for Sustainable Rural Communities (2010)

- 4.3.27. This TAN³⁵ highlights that the planning system has a key role in supporting the delivery of sustainable rural communities. Rural communities can contribute to responding to the challenge of climate change through renewable energy generation, due to the conditions and resource available.

Technical Advice Note 11: Noise (1997)

- 4.3.28. This TAN³⁶ provides guidance on how the planning system can minimise the impacts of noise, without placing unreasonable burdens on applicants. Development which generates noise must be made to ensure that the noise does not lead to an unacceptable degree of disturbance.

Technical Advice Note 12: Design (2016)

- 4.3.29. This TAN³⁷ sets out how the planning process can produce good design. Paragraph 2.6 states that *“design which is inappropriate in its context, or which fails to grasp opportunities to enhance the character, quality and function of an area, should not be accepted, as these have detrimental effects on existing communities”*.

Technical Advice Note 15: Development and Flood Risk (2004, Updated 2026)

- 4.3.30. TAN 15³⁸ supplements planning policy with regard to development and flooding. It provides a framework within which risks arising from river and coastal flooding and water run off to new development can be assessed. Renewable energy generation facilities, such as wind turbines, are noted to be ‘less vulnerable development’ in TAN 15. This classification is considered acceptable by the Welsh Ministers to be sited in flood zones with a 1 in 100 year event plus effects of climate change. It is also permitted within flood zone 3 in exceptional circumstances, including addressing energy security needs and to mitigate the impacts of climate change.

Technical Advice Note 18: Transport (2007)

- 4.3.31. This TAN³⁹ elaborates on the integration of land use and transport planning, explaining how the transport impact from new development should be assessed and mitigated.

³⁴ Welsh Government (2009) Technical Advice Note 5: Nature Conservation and Planning. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2018-09/tan5-nature-conservation.pdf> [Accessed April 2026]

³⁵ Welsh Government (2010) Technical Advice Note 6: Planning for Sustainable Communities. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2018-09/tan6-sustainable-rural-communities.pdf> [Accessed April 2026]

³⁶ Welsh Government (1997) Technical Advice Note 11: Noise. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2018-09/tan11-noise.pdf> [Accessed April 2026]

³⁷ Welsh Government (2016) Technical Advice Note 12: Design. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2018-09/tan12-design.pdf> [Accessed April 2026]

³⁸ Welsh Government (2026) Technical Advice Note 15: Development, Flood Risk and Coastal Erosion. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2025-03/technical-advice-note-15-development-flooding-and-coastal-erosion.pdf> [Accessed April 2026]

³⁹ Welsh Government (2007) Technical Advice Note 18: Transport. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2018-09/tan18-transport.pdf> [Accessed April 2026]

- 4.3.32. Paragraph E.4 outlines that the highway authority for trunk roads is required to be consulted where it appears to the planning authority that the development is likely to create or attract traffic which will result in a material increase in the volume or material change in the character of traffic entering or leaving a trunk road. Transportation of wind turbines to the Site will require specialised vehicles which shall utilise the A489 trunk road.

Technical Advice Note 23: Economic Development (2014)

- 4.3.33. TAN 23⁴⁰ sets out guidance for the approach to economic development. Paragraphs 1.2.1 and 1.2.2 highlight the importance of considering economic benefits of proposals during application determination:
- 4.3.34. *‘The economic benefits associated with development may be geographically spread out far beyond the area where the development is located. As a consequence, it is essential that the planning system recognises, and gives due weight to, the economic benefits associated with new development. PPW advises that planning for economic land uses should aim to provide the land that the market requires, unless there are good reasons to the contrary. Where markets work well, this will help maximise economic efficiency and growth’.*
- 4.3.35. Paragraph 2.1.13 of the TAN states that the planning system should support the low-carbon economy. The balance between economic, social, and environmental benefits and impacts need to be weighed up, with application decisions depending on local circumstances.

Technical Advice Note 24: The Historic Environment (2026)

- 4.3.36. TAN 24⁴¹ sets out how the planning system considers the historic environment and decision making on planning and listed building consent applications. Paragraph 1.9 to 1.14 outline the Conservation Principles for the Sustainable Management of the Historic Environment in Wales (Conservation Principles), which should be used to assess the potential impacts of a development proposal on the significance of any historic asset/assets and to assist in decision making where the historic environment is affected by the planning process.

4.4 POWYS LOCAL DEVELOPMENT PLAN

- 4.4.1. The Proposed Development is located within the administrative area of Powys County Council (PCC). PCC adopted its Local Development Plan (LDP)⁴² in April 2018. The document was intended to apply up to March 2026 but remains the current applicable plan subject to the finalisation and adoption of the Council’s Replacement Local Development Plan 2022-2037. Table 5-3 in Section 5 of this PDAS summarises the policies considered to be of particular relevance to the Proposed Development and provides an assessment of the Proposed Development’s compliance with each policy.

⁴⁰ Welsh Government (2014) Technical Advice Note 23: Economic Development. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2018-09/tan23-economic-development.pdf> [Accessed April 2026]

⁴¹ Welsh Government (2026) Technical Advice Note 24: The Historic Environment. [Online] Available at: <https://www.gov.wales/sites/default/files/publications/2026-03/technical-advice-note-tan-24-the-historic-environment.pdf> [Accessed April 2026]

⁴² Powys County Council (2018) Powys Local Development Plan 2011-2026. [Online] Available at: <https://en.powys.gov.uk/article/4898/Adopted-LDP-2011---2026> [Accessed April 2026]

- 4.4.2. Key Issues and Considerations (KlaC) which shape the LDP are listed in Section 2.4 of the LDP. These highlight the importance of renewable energy projects within the Plan. KlaC number 43 states that *“The energy requirements of development should be minimised and renewable energy opportunities grasped wherever feasible”*. KlaC number 44 also states that *“Utilisation of Powys’ renewable energy resource energy resource and associated infrastructure should be supported where cumulative, environmental, socio-economic effects are acceptable”*.
- 4.4.3. The Replacement Local Development Plan is emerging, but currently holds no weight, with the plan currently in composition with no draft policies available.

5 PLANNING POLICY ASSESSMENT

5.1 INTRODUCTION

- 5.1.1. This purpose of this Chapter is to assess the Proposed Development against the planning policies and guidance set out in Chapter 4. The Chapter begins by considering how the Proposed Development complies with policies at the national level, then narrowing focus onto local policies and documents.

5.2 ASSESSMENT OF COMPLIANCE WITH NATIONAL POLICY

- 5.2.1. Future Wales is the primary planning document in Wales against which applications qualifying as DNS are assessed as the highest tier of the development plan. Future Wales (p.96) confirms:
- 5.2.2. *“As set out in legislation, applications for Developments of National Significance must be determined in accordance with Future Wales, which is the national development plan for Wales.”*
- 5.2.3. In accordance with section 38(6) of the Planning and Compulsory Purchase Act 2004 (“the 2004 Act”), the application for the Proposed Development should be determined in accordance with the Development Plan, unless material considerations indicate otherwise. Under Section 38(4) of the 2004 Act, the Development Plan comprises the National Development Framework for Wales (Future Wales) and the applicable LDP.
- 5.2.4. Future Wales, provides the primary policies upon which the Proposed Development is assessed.
- 5.2.5. Policies 17 and 18 of Future Wales signal the strong support Welsh Government places on delivering renewable and low carbon energy, at a variety of sources and scales.
- 5.2.6. Policy 17 requires that *“Proposals should describe the net benefits the scheme will bring in terms of social, economic, environmental and cultural improvements to local communities”*. The Proposed Development is assessed against these four criteria as follows.

Environmental

- 5.2.7. The Environment (Wales) Act 2016 places a duty on the Welsh Ministers to reduce GHG emissions in Wales by at least 100% in 2050, with significant weight behind decisions to ensure Wales meets international commitments and targets. In addition, as part of the Wales’ Renewable Energy Targets, established in response to the climate emergency, the Welsh Government has adopted the target for Wales to meet the equivalent of 100% of its annual electricity consumption from renewable sources by 2035 and the proposal for at least 1.5 GW of renewable energy capacity to be locally owned by 2035. PPW12 states (paragraph 5.7.7) that *“the benefits of renewable and low carbon energy, as part of the overall commitment to tackle the climate emergency and increase energy security, is of paramount importance”*. Therefore, the Proposed Development complies with national policy, as it provides increased capacity to generate renewable energy.
- 5.2.8. The Carbon Balance Assessment (**ES Appendix 2A**) submitted in support of this application indicates that the Proposed Development could achieve potential annual CO₂ savings of 125,583 tonnes (based on a figure of 448 tonnes of CO₂ savings per GWh and a capacity factor of 40%). This equates to total carbon savings of approximately 3.1 million tonnes over a 25-year operational life and approximately 4.4 million tonnes over the proposed 40-year operational life.

- 5.2.9. It is recognised that increasing renewable energy generation is a significant part of how Wales shall meet the 100% target noted above. Alternatives, such as small-scale generation and greater energy efficiency, “*will not enable us to meet these objectives on their own*” (PPW12 p. 97). The principle of development is supported by Policy 17 which states that the Welsh Government “*strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs*”.
- 5.2.10. The urgency of introducing renewable energy generation projects is needed because the earlier these projects are introduced, the greater the contribution to limiting climate change. The Proposed Development shall have an output capacity of 80MW, generating electricity to annually supply the equivalent of approximately 89,000 homes (based on 2024 average domestic consumption levels). This contribution is particularly important given that the rate of renewable energy deployment in Wales has slowed in the last decade (Energy Generation in Wales, 2023).
- 5.2.11. Based on the above, it is therefore considered that the Proposed Development complies with relevant national planning policies on renewable energy generation and would provide significant renewable energy generation capacity to support the Welsh Government to reach its targets in line with national planning policy.

Economic

- 5.2.12. The Proposed Development shall generate economic benefits during its development and construction, operation and maintenance.
- 5.2.13. The Proposed Development shall see economic benefits for the area in the form of job creation. The Proposed Development shall include the provision of approximately 123 to 131 Full Time Equivalent (FTE) jobs during construction and 2.5 FTE jobs during operation, of which 1.1 FTE jobs would be located within PCC. As set out in the Socio-economic Assessment in Appendix A, economic estimations suggest the operation of the Proposed Development shall boost the economy by £0.87 to £0.93 million per annum in PCC. Further information on the economic benefits is provided in the Socio-economic Assessment.
- 5.2.14. In addition, the Socio-economic Assessment indicates that, based on a range of studies and research findings, the Proposed Development is unlikely to result in any significant adverse effects relating to the visitor attractiveness or tourism potential of such receptors (in terms of accommodation, occupancy levels, business turnover and wider socio-economic effects).

Social

- 5.2.15. The Proposed Development would provide social benefits through the creation of jobs, generating opportunities for local employment and economic activity, as set out in the previous sub-section. The Proposed Development would also support energy security by increasing the availability of low-carbon energy and reducing dependence on imported fossil fuels, helping to deliver a more reliable and resilient energy supply for future generations. Furthermore, the Proposed Development would contribute to addressing the adverse effects of climate change through the generation of renewable electricity, providing an alternative to fossil fuel-based energy generation without the associated greenhouse gas emissions.
- 5.2.16. The Applicant is committed to ensuring that local communities benefit from the Proposed Development and will be providing a dedicated community benefit fund of at least £5,000 per MW of installed wind turbine capacity per annum. On the basis of an installation capacity of 80MW, this

would correspond to a fund value of at least £400,000 per annum, or £16 million over the 40-year project lifetime. Community benefit funds can be used by the community for anything they consider important and/or present opportunities for substantial investment in local amenities, as well as for economic regeneration and development. At other wind farms, community benefit fund allocations have been used to support local voluntary groups, sports teams and clubs, village halls and community centres, and equipment for schools. They have also been used to support economic outcomes including community cooperatives, such as shops, and infrastructure investment such as improving energy efficiency in homes and delivering high speed broadband.

- 5.2.17. There will also be an opportunity for local communities to invest in the project in the form of community shared ownership.
- 5.2.18. It is noted that community benefit funds and community shared ownership are not material considerations in determining this application, but to demonstrate the Applicant's approach to delivering wider benefits for the community.

5.3 FUTURE WALES POLICY APPRAISAL

- 5.3.1. The Site lies within a PAA for Wind Energy (PAA 3), as identified in Future Wales Policy 17. Within PAAs, the Welsh Government modelled the likely impacts on the landscape of large-scale wind farm (up to 250m in tip height), and found them to be able to acceptably support energy development. A presumption in favour of large-scale wind energy development is assigned to the PAAs, subject to criteria in policy 17 and 18.
- 5.3.2. **Table 5-1** demonstrates that the Proposed Development is in compliance with criteria listed in Policy 18 of Future Wales.

Table 5-1 – Assessment of Compliance with Future Wales Policies

Policy 18 Criteria	Compliance
1. Outside of the Pre-Assessed Areas for wind developments and everywhere for all other technologies, the proposal does not have an unacceptable adverse impact on the surrounding landscape (particularly on the setting of National Parks and Areas of Outstanding Natural Beauty);	As noted in paragraph 5.2.1, the Proposed Development is located within PAA 3. The Welsh Government has modelled the landscape impacts of a large-scale wind energy and deemed it to be capable of accommodating such development. The visual impacts modelled by the Welsh Government were assessed based upon a blade tip height of 250m, greater than the 200m maximum for the Proposed Development, indicating a smaller visual impact than that which was deemed acceptable. As detailed in Chapter (Landscape and Visual) 7 of the ES, no significant effects on National Parks or AONBs are predicted. The Proposed Development is therefore considered in compliance with criteria 1.
2. There are no unacceptable adverse visual impacts on nearby communities and individuals	Chapter (Landscape and Visual) 7 in the ES provides further detail on the impacts on nearby communities and individuals. Mitigation steps have been taken during the design iterations to limit the visual amenity impacts on nearby receptors. For example, the size of Turbine 7 was reduced to a tip height of 180m, and infrastructure shall be painted in a neutral colour with a semi-matt finish.

Policy 18 Criteria	Compliance
	The proposed turbines have been cohesively sited to limit the visibility of the turbines, where possible, as well as reducing the horizontal and vertical extent of the Proposed Development from key views and particularly when perceived from nearby settlements, residential properties, and sensitive receptors. The Residential Visual Amenity Assessment (ES Appendix 7L) identifies significant day-time effects on residential visual amenity at a number of residential properties. However, it concludes that the Proposed Development would not reach the residential visual amenity threshold, compromise living standards, or otherwise render the property an unattractive place to live when judged objectively, in the public interest. Overall, while it is accepted that significant visual effects resulting from large-scale wind farm development are unavoidable, it is concluded that the visual impacts of the Proposed Development on nearby communities and individuals are not deemed to be adversely unacceptable and that the layout is well designed, balanced and cohesive. The Proposed Development is consistent with consented wind energy development in the vicinity. On this basis, it is therefore considered the Proposed Development is in compliance with criteria 2.
3. There are no adverse effects on the integrity of Internationally designated sites (including National Site Network sites and Ramsar sites) and the features; for which they have been designated (unless there are no alternative solutions, Imperative Reasons of Overriding Public Interest (IROPI) and appropriate compensatory measures have been secured)	The Habitats Regulations Assessment Screening Report assesses whether any of the impacts associated with Proposed Development could result in Likely Significant Effects on any of the internationally designated sites identified. It concludes that the Proposed Development will not result in any land take from these sites and, given the distance between the internationally designated sites and the Proposed Development, will not result in any Likely Significant Effects. On this basis, it is therefore considered the Proposed Development is in compliance with criteria 2.
4. There are no unacceptable adverse impacts on national statutory designated sites for nature conservation (and the features for which they have been designated), protected habitats and species	Chapter 5 (Ecology) of the ES concludes that the Proposed Development would not result in significant effects on any designated sites or habitats, or on protected or priority habitats and species. Llyn Mawr SSSI is located partially within the southern extent of the Site boundary. No development is proposed within the SSSI itself. Mitigation measures have been adopted to limit any indirect impacts of the Proposed Development on the quality of the SSSI. An Outline CEMP has been submitted as part of this application, setting out the approach to the control of the construction activities for the Proposed Development and mitigate potential effects on the environment. The final CEMP will be secured through a suitably worded planning condition should any permission granted for the Proposed Development. An Outline Habitat Management Plan (oHMP) has been submitted as part of this application. The oHMP sets out the proposed habitat management and monitoring measures to limit any adverse effects of the Proposed Development on the Site and surrounding habitats and associated features wherever possible. The final HMP will be secured through a suitably worded

Policy 18 Criteria	Compliance
	planning condition should any permission granted for the Proposed Development, in consultation with PCC and NRW. It has been calculated that there would be a potential maximum loss of 0.43 ha of land designated as Ancient Woodland as a result of widening an historic existing track to form part of the access road. This loss has been minimised through design iterations, including the utilisation of an existing access track and consideration of alternative alignments to avoid areas of Ancient Woodland. An engineering optioneering exercise was undertaken to identify alternative routes that would avoid the area designated as Ancient Woodland. However, these would require substantial engineering works and earthworks to the hillside, which would likely result in detrimental landscape and visual and other environmental impacts from such earthworks, including movement of materials. As such and on balance, these alternatives were not considered acceptable from an environmental perspective. On this basis, the use of the existing historic track which crosses through the Ancient Woodland designation was therefore identified as the most appropriate solution to allow access to the Site. The issue of Ancient Woodland and the case for 'wholly exceptional' circumstances is addressed in further detail in Section 5.6 below. It has also been calculated that the Proposed Development could also lead to the permanent loss of 0.07ha of blanket bog out of the 0.69ha that has been identified within the Site. The design of the Proposed Development has undergone various iterations in order to avoid blanket bog habitats as far as practicably possible. The long-term habitat management and monitoring measures of blanket bog are set out in the oHMP. An area comprising high sensitivity soils, marshy grassland and blanket bog, covering an area of 139.2 ha, has been proposed to be enhanced, which includes the identified area of blanket bog.' Floating' tracks are also proposed over the blanket bog in one location itself to allow it to be retained in-situ. This is addressed in further detail in Section 5.6 below. The policy support for renewable energy development at national and local level recognises the public benefit that derives from the generation of low carbon electricity generation, the Site's location within PPA 3 for Wind Energy, the benefits of the Proposed Development, and the proposed compensation measures, are considered to outweigh the loss of the very limited areas of land designated as Ancient Woodland and blanket bog. It is therefore considered that the Proposed Development is in compliance with criteria 3.
5. The proposal includes biodiversity enhancement measures to provide a net benefit for biodiversity	An outline Habitat Management Plan (oHMP) has been produced, to sets out the strategy that the Applicant proposes to employ to ensure habitat management measures are implemented to mitigate the effects on identified features, as well as delivering additional biodiversity improvements across the Site. A detailed Habitat Management Plan (HMP) will be agreed with PCC, in consultation with Natural Resources Wales (NRW). As detailed within the Green Infrastructure Statement, the step-wise approach has been taken in the design of the Proposed Development and, with implementation of the proposed measures, the Applicant considers that there is sufficient opportunity to achieve an overall NBB and improve ecosystem resilience. As such, the proposal would comply with criteria 5.
6. There are no unacceptable adverse impacts on statutorily	The design of the Proposed Development has avoided the majority of known historic assets within the Site to reduce the likelihood of potential archaeological impacts, with the exception of Y Glonc Kerb Cairn and a possible circular enclosure identified through LiDAR analysis (refer to ES

Policy 18 Criteria	Compliance
protected built heritage assets	Chapter 8 Cultural Heritage for further details). Any impacts to these archaeological remains would be mitigated through embedded measures of design or through a programme of archaeological excavation and recording. Chapter 8 (Cultural Heritage) of the ES identifies the mitigation proposed to minimise adverse effects on historic assets. With the implementation of mitigation measures, comprising micro-siting through design, archaeological excavation and recording, there would be no significant effects on the historic assets and previously unrecorded sub-surface archaeological remains. The Proposed Development would introduce 11 turbines around or within the setting of six scheduled monuments and one registered historic landscape. Chapter 8 of the ES concludes that the Proposed Development would result in significant effects arising from the changes to setting of four Scheduled Monument, including Nant Cwm Gerwyn Cairns, Craig y Llyn Mawr Round Cairn, Blaen y Cwm Ring Cairn, and Lliest Uchaf Cairns and Stone Row, during the operational phase. Compensation is proposed through the provision of heritage interpretation boards, delivering public benefit through enhancing the public understanding of the heritage assets and their surrounding landscape. Whilst significant in EIA terms the effects are not considered to be unacceptable due to the mitigation and compensation measures that shall be in place, and it is considered that the Proposed Development is in compliance with criteria 6.
7. There are no unacceptable adverse impacts by way of shadow flicker, noise, reflected light, air quality or electromagnetic disturbance	Chapter 13 (Shadow Flicker) of the ES assesses the potential impacts by way of shadow flicker. The assessment identified that 8 of 11 proposed turbines have the capacity to cause shadow flicker effects. It is proposed that a shadow flicker control module to be installed where required to shut down specific turbines on specific dates at specific times when the nuisance shadow flicker could occur. This would be secured by planning condition. Therefore, no unacceptable effect from shadow flicker would arise as a result of the Proposed Development. Chapter 11 (Noise) of the ES assesses the potential impacts on noise. The predicted levels of noise generated from turbines, for all non-financially involved dwellings, meet the national guidelines set out in ETSU-R-97 for Upper Daytime and Night-time Hours. For financially involved dwellings, these criteria are also met, including under the worst-case cumulative development scenario, subject to implementation of a curtailment strategy or low power modes which would ensure that the Proposed Development remains within the associated limits. The operational noise levels relating to the BESS facility under worst case conditions have also been assessed. The external rating levels from electrical equipment during the day and the internal rating levels during the night are expected to be below the relevant criterion for potential significant effects. In terms of construction noise, residual effects from all construction activities are considered to be not significant with the proposed mitigation. Noise guidance for assessing operational wind farm noise levels was updated in June 2026 after the preparation of the chapter. Although the chapter has been reviewed and partially updated to ensure that the assessment remains robust and the conclusions are not materially different, the chapter will be updated prior to submission of the DNS application to fully reflect the updated guidance

Policy 18 Criteria	Compliance
	Chapter 14 (Other Issues (Aviation and Radar, Telecommunications)) of the ES assesses the potential effect on telecommunications. Consultation with the telecommunications operator and other relevant parties to date has identified no issues and a 50m microsite allowance would be used to microsite the turbine to mitigate potential interference. Air quality has been scoped out of the ES. The Site is not located near an Air Quality Management Area (AQMA) and operational emissions to air are anticipated to be negligible given the nature of the Proposed Development. Any potential impacts on air quality would be managed through the CEMP. An Outline CEMP has been submitted as part of this application which contain standard industry best practice mitigation regarding emissions during construction.
8. There are no unacceptable impacts on the operations of defence facilities and operations (including aviation and radar) or the Mid Wales Low Flying Tactical Training Area (TTA-7T)	Chapter 14 (Other Issues (Aviation and Radar, Telecommunications)) of the ES assesses the potential effect of the Proposed Development on aviation. The Site lies within a military low flying training area (Low Flying Area 7) and close to the boundary of Tactical Training Area 7. With mitigation measures to ensure safe flight operations, no significant impacts on aviation are anticipated. These measures include compliance with regulations governing the timely dissemination of information regarding the construction of anemometer masts and wind turbines, together with provision of aviation lighting fitted to the Proposed Development, including MoD-compliant infra-red lighting. The proposed turbines would potentially be visible on the NATS Cleve Hill radar. Consultation with NATS is ongoing to agree a technical approach and a planning condition that would mitigate radar impacts. The Ministry of Defence (MoD) have highlighted that there may be a requirement for aviation lighting. An Aviation Lighting Strategy (ES Appendix 14A) has been prepared and will be submitted as part of this application, with the aviation lighting design subject to approval of the MoD and CAA. With mitigation agreed on the NATS Cleve Hill radar, and an acceptable lighting scheme agreed with the MoD, the Proposed Development would not result in any technical or operational effects and therefore would not contribute to any cumulative aviation or radar effects.
9. There are no unacceptable adverse impacts on the transport network through the transportation of components or source fuels during its construction and/or ongoing operation	Chapter 12 (Traffic and Transport) of the ES assesses the potential effects on the transport network from the Proposed Development. It notes that there shall be different levels of traffic movements during different phases of the development. The primary cause of traffic impacts will be from the transportation of construction materials which results in abnormal loads, during the construction phase. An Outline Construction Traffic Management Plan (CTMP) has been prepared which sets out processes to limit the impact of deliveries and HGV movements on traffic, with a final version proposed to be secured by planning conditions. The Final CTMP secured by planning condition shall stipulate routes to follow, procedures to access the site and rules on movements. Compliance with the CTMP shall ensure temporary impacts of the construction impact can be effectively managed and not adversely impact on the surrounding transport network. The Final CTMP will address issues such as communication, traffic management, road condition survey, remedial works and a contact and liaison.

Policy 18 Criteria	Compliance
	During the operational phase, traffic movement would be light and generally include maintenance vehicles only. It is considered that traffic movement associated with the operational phase of the Proposed Development will have a negligible impact on the local transport network. The decommissioning phase will have similar impacts as the construction phase and can be managed through the implementation of the TMP avoid having and unacceptable adverse impacts on the transport network. The Applicant proposes a planning condition to require the preparation and submission for approval of a decommissioning strategy to include for the management of traffic. Therefore, it is considered that there are no unacceptable adverse impacts on the transport network as a result of the Proposed Development during construction, operation or decommissioning.
10. The proposal includes consideration of the materials needed or generated by the development to ensure the sustainable use and management of resources	The Proposed Development has been designed to minimise the materials needed during construction. As set out in Chapter 4 (Description of the Proposed Development) of the ES, a worst-case scenario assumes that all materials (stone, concrete, and sand) required for the construction of the Proposed Development would need to be imported to the Site from existing quarries and in the local area. Nevertheless, to minimise the volume of stone imported on to the Site from elsewhere, suitable stone will be sourced from on-site borrow pits where feasible. The locations of potential borrow pits are currently being investigated. If suitable borrow pit locations are identified, details will be included within this application and will be adequately assessed as part of the Proposed Development through the relevant assessments within the ES. The appropriate reuse of soils, where practicable, has been incorporated into the design, with measures set out in the Outline Soil and Peat Management Plan (ES Appendix 10D) to facilitate soil balance during construction. Any waste materials produced and surplus material excavated from the construction of the Proposed Development will be removed from Site and transported an appropriate waste recycling or disposal facility. Site waste management procedures will follow the waste hierarchy as set out in the Outline CEMP. Accordingly, the Proposed Development is considered to be acceptable with regard to the sustainable use and management of resources.
11. There are acceptable provisions relating to the decommissioning of the development at the end of its lifetime, including the removal of infrastructure and effective restoration.	Chapter 4 (Description of the Proposed Development) of the ES sets out the likely decommissioning approach and procedures for the turbines and other infrastructure. The Proposed Development has been designed for an operational life of 40 years. Following this period, it is assumed that the Proposed Development would be decommissioned with the Site reinstated and materials from the wind turbines, substation, control building, BESS units and associated infrastructure recycled or reused where feasible. Current best practice in decommissioning is to leave foundations in situ, as this is considered less environmentally damaging. Current decommissioning best practice is to leave the foundations in situ as this is considered less environmentally damaging. Subject to agreement with the relevant landowners, the on-site access tracks and new access road would also remain in situ following decommissioning. Should the access road no longer be required, it would be removed as part of the decommissioning process and the materials disposed of off-site appropriately.

Policy 18 Criteria	Compliance
	It is proposed that the decommissioning phase, including site restoration, will be controlled by an appropriately worded condition to be submitted six months prior to decommissioning. With these provisions, the Proposed Development is considered to be in compliance with criteria 11.
12. The cumulative impacts of existing and consented renewable energy schemes should also be considered.	As set out in Chapter 2 (Approach to EIA) of the ES, in the course of completing the ES, and through communication with PCC, Ceredigion County Council, Gwynedd Council, and Shropshire Council, a number of other wind farm developments have been identified for consideration in the assessment of inter-project cumulative effects. The cumulative effects have been discussed within the individual topic chapters as appropriate (Chapters 5 – 15). Significant inter-project cumulative effects have been identified in relation to landscape and visual and heritage. Mitigation measures have been identified and incorporated into the Proposed Development where appropriate. In other respects, the site is located within a PAA. As such, the landscape effects (including cumulative) are considered acceptable in national planning policy terms. Overall, the Proposed Development is considered to be acceptable with regard to cumulative impacts of existing and consented renewable energy schemes.

5.4 ASSESSMENT OF COMPLIANCE WITH TECHNICAL ADVICE NOTES

- 5.4.1. Section 4.3 sets out the TANs considered relevant to the Proposed Development. The assessment of the Proposed Development against the TANs is set out within Table 5-2.

Table 5-2 – Compliance with Technical Advice Notes

Technical Advice Note	Assessment of Proposed Development
Technical Advice Note 5: Nature Conservation and Planning (2009)	The Proposed Development would potentially result in direct loss of 0.07ha of blanket bog. Measures to mitigate the loss of blanket bog are detailed in the Net Benefit for Biodiversity Report (Appendix C of the Green Infrastructure Statement) and the oHMP (ES Appendix 7P). The oHMP includes habitat creation and enhancement of 139.16 ha of retained habitat on Site which supports sensitive soils, marshy grassland and blanket bog. The Proposed Development would also result in a worst-case basis of 0.43ha potential loss of Ancient Woodland where the existing access track is being utilised. Recommendations relating to Ancient Woodland as detailed in Arboricultural Desk Study (ES Appendix 5R) will be followed. Chapter 5 (Ecology) of the ES assesses the likely significant effects of the Proposed Development with respect to ecology. No significant effects were identified on any designated sites or other priority habitats or protected species.

Technical Advice Note	Assessment of Proposed Development
Technical Advice Note 6: Planning for Sustainable Rural Communities (2010)	The Site of the Proposed Development is within PAA 3. As stated in Future Wales, the Welsh Government has undertaken an assessment to identify these 'Pre-Assessed Areas for Wind Energy' to provide certainty where in principle, wind energy developments would be acceptable. The existing land use of the Site and surrounding area is largely comprised of agricultural pasture used for livestock grazing, and is interspersed by hedgerows, existing access roads and pockets of woodland throughout. Existing agricultural activities will be able to continue during the operation of the Proposed Development. Furthermore TAN 6 paragraph 3.7.2 states that the production of renewable energy on agricultural land is an appropriate use, supporting farm diversification. A review of the Wales ALC interactive map viewer suggests that the majority of land within the Site is classified as Grade 4 (poor quality) agricultural land or Grade 5 (very poor quality) agricultural land. The southern-most section of the access track crosses Grade 3b and a small area of Grade 2 and Grade 3a land, which are classified as best and most versatile agricultural land. However, the affected section is only approximately 165m in length and as such, the potential effects are not considered significant and have therefore been scoped out of the ES. In conclusion, it is considered that the Proposed Development complies with this TAN.
Technical Advice Note 11: Noise (1997)	The noise impacts during both construction and operation of the Proposed Development are assessed in Chapter 11 (Noise) of the ES. As stated in Table 5-1 of this PDAS, the construction and operation noise levels of the Proposed Development are not considered to be significant. As such, it is considered that the proposed development is in compliance with the TAN.
Technical Advice Note 12: Design (2016)	The Proposed Development is designed to make the most effective use of the land for wind power generation with effects mitigated as far as is possible for development of this type. Sections 2 and 3 of this PDAS and Chapter 4 (Description of the Proposed Development) of the ES details the site context and character, movement and access arrangements and optioneering undertaken to minimise the environmental impacts. The Proposed Development therefore complies with the requirements of TAN 12.
Technical Advice Note 15: Development and Flood Risk (2004, Updated 2026)	A Flood Consequence Assessment (FCA) (ES Appendix 9A) has been undertaken where the risks of flooding have been considered from all potential sources with reference to NRW's Flood Map for Planning. The development category for the Site is 'Less Vulnerable' as it is classed as energy infrastructure (not associated with Power Plants). In accordance with TAN 15, this would be suitable in fluvial Flood Zone 1. The risk of flooding consequences to the development is considered to be acceptable as the Proposed Development is raised above the finished floor levels. Through the implementation of new surface water drainage systems in compliance with the relevant SAB requirements, there is unlikely to be an increase in flood risk elsewhere. Therefore, the Proposed Development is considered to be in compliance with the requirements of TAN15 (2025).

Technical Advice Note	Assessment of Proposed Development
Technical Advice Note 18: Transport (2007)	Chapter 12 (Traffic and Transport) of the ES examines the potential effects on the transport network. The impacts of Proposed Development during construction and operation phases on the road networks shall be managed and mitigated via the CTMP and impact on the PRoWs shall be managed and mitigated via the PRoWMP. Effects of the movement of AILs shall be managed in line with highway authority requirements and guidance in legislation and requirements in order to minimise the impact of AIL movements, in consultation with the highway authority and other key consultees. The Proposed Development therefore complies with the requirements of TAN 18.
Technical Advice Note 23: Economic Development (2014)	As detailed in the Socio-economic Assessment (Appendix A of this PDAS) and previously outlined in Section 5.1 of this PDAS, the Proposed Development shall generate economic benefits both during its development and construction and during its operation and maintenance. In addition to the positive benefits for addressing climate change and enhancing the supply of renewables, the Proposed Development shall produce economic benefits for the area in the form of job creation. There will also be the opportunity for local communities to acquire a stake in the project through a community share ownership offer. The Proposed Development would include the provision of approximately 123 to 131 Full Time Equivalent (FTE) jobs during construction. Additionally, it is estimated that the operation of the Proposed Development shall boost the economy by £0.87 to £0.93 million per annum in PCC. The information above therefore confirms the positive economic benefits of the Proposed Development and as such, its compliance with the TAN.
Technical Advice Note 24: The Historic Environment (2026)	As outlined in Table 5-1, the design of the Proposed Development has avoided the majority of known historic assets within the Site to reduce the likelihood of potential archaeological impacts, with the exception of Y Glonc Kerb Cairn and a possible circular enclosure identified through LiDAR analysis (refer to ES Chapter 8 for further details). Any direct impacts to these archaeological remains would be mitigated through embedded measures of design or through a programme of archaeological excavation and recording. In addition, with mitigation measures comprising micro-siting through design archaeological excavation and recording, there would be no significant effects on the historic assets and previously unrecorded sub-surface archaeological remains. The Proposed Development would introduce 11 turbines around or within the setting of six scheduled monuments and one registered historic landscape. Chapter 8 of the ES concludes that the Proposed Development would result in significant effects arising from the changes to the setting of four Scheduled Monuments, including Nant Cwm Gerwyn Cairns, Craig y Llyn Mawr Round Cairn, Blaen y Cwm Ring Cairn, and Lliest Uchaf Cairns and Stone Row, during the operational phase. Compensation is proposed through the provision of heritage interpretation boards, delivering public benefit through enhancing the public understanding of the heritage assets and their surrounding landscape. With compensation in place, effects are not considered to be unacceptable.

Technical Advice Note	Assessment of Proposed Development
	TAN 24 1.8 recognises that “ <i>the public benefit of taking action to reduce carbon emissions, or to adapt to the impact of climate change, should be weighed against any harm to the significance of historic assets</i> ”. This is considered through this PDAS and the Proposed Development is considered to comply with the TAN.

5.5 LDP POLICY APPRAISAL

- 5.5.1. The policies considered to be of particular relevance to the Proposed Development, together with an assessment of its compliance with each policy, are set out in **Table 5-3** below.

Table 5-3 – LDP Policy Appraisal

Policy Title	Summary	Compliance
Policy SP7 - Safeguarding of Strategic Resources and Assets	Proposals must not have an unacceptable adverse impact on the strategic resource or asset and its operation. A list of strategic resources and assets has been provided within the policy which include international, European and/or national designated sites, historic environment designations, recreational assets, valued characteristics and qualities of the landscape, and Mineral Resource Areas.	The potential impacts of the Proposed Development on the strategic resources and assets identified in Policy SP7 have been assessed in the relevant chapters of the ES, including effects on designated sites, the historic environment, landscape character and visual amenity and recreational receptors. The design of the Proposed Development has evolved through an iterative process to avoid and minimise effects on these assets wherever practicable. Subject to the proposed mitigation and management measures, the Proposed Development would not result in unacceptable adverse effects on any strategic resources or assets and is therefore considered to comply with Policy SP7.
Policy DM2 – The Natural Environment	Proposals shall demonstrate how they protect and enhance biodiversity. Development that does not unacceptably adversely affect European Conservation Sites and Protected Species, as well as site designations, habitats and species protected by national and local policy, such as National Nature Reserves and Sites of Special Scientific Interest (SSSI). Development which causes some adverse impact may be permitted if demonstrable steps have been taken to conserve and enhance the natural environment, provides benefits that outweigh impacts, and mitigation measures are provided.	The Proposed Development would result in the loss 0.07 ha of blanket bog habitat and a maximum of 0.43ha of land designated as ancient woodland. The loss of ancient woodland and blanket bog has been minimised as far as practicable through the design process. A stepwise approach has been adopted for the Proposed Development, as detailed in the Green Infrastructure Statement. No significant effects on designated sites, priority habitats, or other protected species have been identified in the ES. Through implementation of the construction management techniques highlighted in the Outline CEMP and through the habitat management and

Policy Title	Summary	Compliance
		enhancement mitigation proposals put forward in the oHMP and Net Benefit for Biodiversity report, it is concluded that the Proposed Development would provide environmental net benefits and create improved Green Infrastructure connectivity within the Site and surrounding area.
Policy DM4 – Landscape	Proposals shall not have an unacceptable impact on the Powys landscape, character and visual amenity, being appropriate and sensitive in terms of integration, siting, scale and design.	Mitigation steps have been taken during the design iterations to minimise the visual amenity impacts on nearby receptors. The proposed wind turbines have been cohesively sited to limit the visibility of the turbines, where possible, as well as reducing the horizontal and vertical extent of the Proposed Development from key views and particularly when perceived from nearby settlements, residential properties, and sensitive receptors. The Sites lies within PAA 3 as identified in Future Wales Policy 17. The visual impacts modelled by the Welsh Government were assessed based upon a blade tip height of 250m, greater than the 200m maximum for the Proposed Development, indicating a smaller visual impact than that which was deemed acceptable. The ES considers that turbines with blade-tip heights of 180m to 200m would not appear over-scaled considering the relatively large-scale landscape setting of its location. The RVAA (ES Appendix 7L) concludes that, while the Proposed Development would result in significant day-time effect on residential visual amenity at a number of residential properties, it would not exceed the residential visual amenity threshold. The landscape and visual effects of the Proposed Development would therefore not be unacceptable, and the Proposed Development is considered to comply with Policy DM4.
Policy DM13 – Design and Resources	Proposals should demonstrate good quality design, with regard to the surrounding area. Design should complement the local character and preserve local distinctiveness, while mitigating impact on views and the effects on tourism. Impact on levels of noise, dust, air pollution, and other	As set out in Section 3 of this PDAS, the design of the Proposed Development has been informed by the environmental and technical constraints of the Site, as well as engagement with the local community and statutory and non-statutory consultees.

Policy Title	Summary	Compliance
	planning matters must not cause unacceptable effects on local population. Proposals should also demonstrate a sustainable and efficient use of resources, such as through achieving supply of electricity from renewable sources.	The potential impacts of the Proposed Development on tourism and various environmental receptor have been assessed within the ES and the Socio-Economic Assessment. The Proposed Development would also contribute to the generation of renewable electricity, supporting the efficient and sustainable use of resources and the transition to a low-carbon energy system.
Policy DM15 – Waste within Developments	Proposals shall minimise waste during all stages of development and how waste material during construction and operation shall be managed.	Good site management practices would be implemented as set out in the Outline CEMP. The final CEMP and environmental management plans for the operation and decommissioning of the Proposed Development would be secured through suitably worded planning conditions should any permission granted for the Proposed Development.
Policy RE1 – Renewable Energy	Proposals for renewable energy development will be permitted subject to complying with relevant proposals in the LDP, and putting mitigation in place to reduce impact to the land. Proposals should also be suitable as assessed through the Strategic Search Areas (SSA) and Local Search Areas, with large or very large scale wind development (over 25MW) concentrated in the SSAs.	The Proposed Development is located within PAA 3 for Wind Energy, as identified under Policy 17 of Future Wales, for which the Welsh Government has already modelled the likely impact on the landscape and has found them to be capable of accommodating large scale wind turbine development in an acceptable way, indicating that the Proposed Development is located in an area considered suitable in principle for wind energy development.

5.6 THE CASE FOR “EXCEPTIONAL” CIRCUMSTANCES

PLANNING POLICY POSITION

5.6.1. PPW Paragraph 6.4.43 states that:

5.6.2. *“Ancient woodland, semi-natural woodlands, individual ancient, veteran and heritage trees and ancient hedgerows are irreplaceable natural resources, and have significant landscape, biodiversity and cultural value. Such trees, woodlands and hedgerows are to be afforded protection from development which would result in their loss or deterioration unless very exceptionally there are significant and clearly defined public benefits; this protection must prevent potentially damaging operations and their unnecessary loss. In the case of a site recorded on the Ancient Woodland Inventory, authorities should consider the advice of NRW. Planning authorities should also have regard to the Ancient Tree Inventory, work to improve its completeness and use it to ensure the protection of trees and woodland and identify opportunities for more planting as part of the Green Infrastructure Assessment, particularly in terms of canopy cover”.*

- 5.6.3. Additional recognition that Ancient Woodland and blanket bog can represent an “irreplaceable habitat” is provided under footnote 129 on Page 149 of PPW12 which lists it as an example in respect of the Step-Wise Approach. Step 1b) on Page 149 of PPW12 explains that statutory designated sites and those that are ‘irreplaceable’ form the heart of resilient ecological networks and their role and the ecosystem services they provide must be protected, maintained and enhanced, and safeguarded from development. Development on sites which contain irreplaceable habitats will only be considered justifiable in “wholly exceptional” circumstances.

ANCIENT WOODLAND

- 5.6.4. It is acknowledged that there is the potential to lose up to 0.43ha of ancient woodland as part of the Proposed Development due to the alignment/upgrading of the existing access track which runs through the Coed Yr Henblas Ancient Woodland designation.
- 5.6.5. It is important to note that the ‘Ancient Woodland’ area in question, whilst technically covered by the designation on the mapping, does in fact include an existing track which will be sympathetically upgraded for access purposes whilst minimising any potential impacts upon the wider Ancient Woodland either side. This track can be seen on some of the historic mapping as illustrated on **Plate 5-1 and Plate 5-2** below with the track in question circled in yellow.
- 5.6.6. Nonetheless, as set out in Chapter 3 of the ES, the access road alignment has undergone multiple iterations, driven by engineering considerations and the need to avoid or minimise impacts on sensitive environmental receptors as far as practicable. Whilst potentially avoiding this area was the first option considered by the Applicant, in line with the step-wise approach, an engineering exercise was undertaken to consider and assess all potential viable alternative routes. However, it was ascertained from this exercise that these would require substantial engineering works and/or earthworks to the hillside, which would result in potentially more detrimental landscape and visual and other environmental impacts from more extensive earthworks and/or movement of materials. As such, these alternatives were not considered acceptable from an environmental perspective with the least impactful and most appropriate option therefore to utilise the existing (potentially widened) track that technically runs through the Ancient Woodland designation.
- 5.6.7. Furthermore, the proposed works would not lead to the loss of the wider woodland nor would they lead to its deterioration. The Applicant is committed to minimising the potential loss of Ancient Woodland where possible and will do as part of further detailed engineering design work to be undertaken if planning permission were to be granted.
- 5.6.8. In terms of the Ancient Woodland designation within the Site, if it is to be considered an irreplaceable habitat it means, therefore, that direct replacement planting is not an option. Instead, other specific mitigation measures have been outlined within the oHMP. Such measures include enhancing other areas of woodland through coppicing and managed thinning and improving woodland connectivity by planting at the edge of the Ancient Woodland. Habitat restoration and compensation will ensure that habitats are created/enhanced appropriately and according to their importance for biodiversity and ecosystem resilience, and will deliver ecological benefits beyond the required compensation and mitigation in accordance with PPW12. This adds further weight to the case that “wholly exceptional” circumstances exist for the Proposed Development.
- 5.6.9. The potential reduction in the Ancient Woodland from 6.30ha to 5.87ha should be viewed in the wider context of the 80MW of renewable electricity generated by the Proposed Development. The Applicant considers that the strong policy support within Future Wales, PPW12 and the PCC LDP

for such renewable energy development, aligned with Wales's international commitments and targets on climate change and net zero, constitutes the "wholly exceptional circumstances". This conclusion is also supported by the following recent DNS decision.

- 5.6.10. In Paragraph 162 of the Inspector's Report on the Garn Fach Wind Farm (**DNS/3244499**) they noted:
- 5.6.11. *"162. However, in the interests of completeness I shall consider the implications of applying step 1b) which would arise either on the basis that: 1) the peatland habitat is to be destroyed and that it is too difficult or would take too long to recreate or replace; or 2) the mention of peatland in the list means that it is irreplaceable. As the Soil Unit rightly states this sets a high bar for any project. Given the strong planning policy support for the delivery of additional renewable energy generation to meet demanding timescale targets, I consider that there exist wholly exceptional considerations that would justify permitting the scheme".*
- 5.6.12. The Inspector also stated in paragraph 166 of their report that:
- 5.6.13. *"PPW should be read as a whole (paragraph 1.9), which includes the strong support for renewable energy, reinforces my opinion that the effects on peatland do not breach PPW12".*
- 5.6.14. On the Welsh Ministers Decision Letter for the same Garn Fach Wind Farm (**DNS/3244499**) the Minister noted that:
- 5.6.15. *"42. On the issue of peat, I disagree with the Inspector as policy clearly seeks to protect peat and peat soils because they are irreplaceable. Peat soils are extremely fragile and if compromised put at risk the resilience of the ecosystems they support. Sites comprised of peat should be excluded from a site search as development would only be justifiable in wholly exceptional circumstances".*
- 5.6.16. *"43. I do however agree with the Inspector's consideration in the alternative (IR 162 – 168) that the high test of "wholly exceptional" circumstances is met in this case, due to the scheme's contribution to the Welsh Government's renewable energy targets and overall improvement in the peatland resource on the site".*
- 5.6.17. This demonstrates that there is a definite case for wind farm developments to be considered as having "wholly exceptional circumstances" when considered against the whole of PPW12, due to the potential contribution to renewable energy targets and green energy.

Although there are potential impacts on the Ancient Woodland designation, when the scheme as a whole is considered against PPW12, it is considered that the significant benefits the scheme would bring in terms of improvements to the management of the Ancient Woodland and renewable energy generation would justify "exceptional circumstances" in this particular instance.



Source: Montgomeryshire OS Map (1902) – National Library of Scotland.

Plate 5-1 – Historic Mapping of the Existing Track (1902)



Source: Montgomeryshire OS Map (1964) – National Library of Scotland

Plate 5-2 – Historic Mapping of the Existing Track (1964)

BLANKET BOG

- 5.6.18. A second habitat which has been identified on Site and which may be affected by the Proposed development is blanket bog. Footnote 129 to PPW12 includes blanket bog as an example of an irreplaceable habitat.
- 5.6.19. The Proposed Development could lead to permanent loss of 0.07ha of blanket bog out of the 0.69ha that has been identified within the Site. The design of the Proposed Development has undergone various iterations in order to avoid blanket bog habitats as far as possible. The long-term habitat management and monitoring measures of blanket bog are set out in the oHMP. An area comprising high sensitivity soils, marshy grassland and blanket bog, covering an area of 139.2 ha, has been identified as suitable for enhancement, a 4:1 enhancement ratio will be achieved in this area.
- 5.6.20. It is also noted that ‘floating’ roadways are proposed over one area of blanket bog which cannot be avoided. Although this would remove some of the habitat on the surface, it would ensure that the blanket bog underneath remains in-situ, continues to function and would allow the surface habitat to be restored once the ‘floating’ tracks are removed.

- 5.6.21. Floating tracks have been used on wind farm in Wales, Scotland and England over a number of years as a common response to the issue of deep peat (and blanket bog). For example, floating roads were proposed for the Abertillery Wind Farm DNS Application (Ref: **DNS/3278009**). Whilst the application was refused on landscape grounds, the Inspector noted that NRW accepted the principle of “floating track” access roads:
- 5.6.22. *“NRW in the SOCG agree that in principle the floating track arrangements are as far as practicable acceptable” (Paragraph 213, p.36).*
- 5.6.23. The Inspector also noted the following in their assessment (Paragraphs 226 and 227), which are particularly relevant in terms of the assessment and consideration of peat as ‘irreplaceable’:
- 5.6.24. *“There appears a strong reliance by consultees that all peatland/undisturbed soils are listed in footnote 129, but the list reads as providing examples of habitat types that may contain the attributes present in relation to its age, uniqueness, species diversity or rarity. Adopting the consultees interpretation of PPW footnote 129 would mean that all peatland is protected regardless of its condition/attributes where there is a range of peatland quality/condition across the site. For example, blanket bog is listed as an example in footnote 129, however, the applicant’s technical evidence indicates that the wet modified bog habitat does not meet the criteria for blanket bog as defined.*
- 5.6.25. *Having regard to the foregoing matters and interpreting PPW advice, in my view, footnote 129 and PPW Step 1b) are not engaged in this instance”.*
- 5.6.26. Irrespective of whether Footnote 129 and Step 1b) are engaged or not, the Inspector made an assessment of it in terms of Step 1b) and the ‘wholly exceptional’ consideration and noted:
- 5.6.27. *“In my view, there is strong planning policy support for the delivery of renewable energy projects, and this would make a significant contribution towards meeting the UK and WGs targets. In this regard, a grid connection offer has been accepted and would be subject to a separate planning application.*
- 5.6.28. *As such, I consider that there exist wholly exceptional considerations that would justify permitting the scheme in relation to the issue of peat”.*
- 5.6.29. This also demonstrates that the significant benefits wind farms can bring in terms of renewable energy generation to meet Government targets can justify the “wholly exceptional” circumstances where peat is potentially impacted.
- 5.6.30. This, combined with the mitigation proposed, including the use of ‘floating’ tracks’ and ditch blocking with peat dams to enhance resilience of retained blanket bog, will ensure that the impacts to blanket bog are sufficiently compensated for.

CONCLUSION

It is acknowledged that there are potential impacts upon the Ancient Woodland designation at Coed Yr Henblas by the use and potentially upgrading of the historic access track, as well as the potential to affect small areas of blanket bog. Nevertheless, these will be minimised as far as practicable and/or mitigated against including the use of ‘floating’ tracks and ditch blocking with peat dams to enhance resilience of blanket bog. When the Proposed Development is assessed against the whole of PPW12, including the onsite mitigation and enhancement measures together with the significant benefits it could bring in terms of renewable energy generation and meeting Welsh Government targets for net zero, it is considered that this justifies both the “wholly exceptional” and “very exceptionally” tests in this particular instance and, on that basis, the proposal is considered acceptable in policy terms.

6 CONCLUSION AND THE PLANNING BALANCE

- 6.1.1. The following main issues are to be considered in the planning balance:
- The principle of the acceptability of the Proposed Development in this location in accordance with national and local planning policy;
 - The location of the Site within a Pre-Assessed Area for Wind Energy as identified under Policy 17 of Future Wales;
 - The need to generate electricity by renewable means in order to meet Wales's international commitments, and its target of achieving net zero greenhouse gas emissions by 2050;
 - The likely significant effects identified as a result of a change in the setting of Nant Cwm Gerwyn Cairns, Craig y Llyn Mawr Round Cairn, Blaen y Cwm Ring Cairn, and Lluest Uchaf Cairns and Stone Row Scheduled Monuments; and
 - The potential impacts on an area of ground designated as Ancient Woodland and a small area of blanket bog habitat, which are listed as examples of 'irreplaceable habitats' under footnote 129 of PPW12.
- 6.1.2. Policies 17 and 18 of Future Wales states that the Welsh Government strongly supports renewable energy development in principle, and decision makers must give **significant weight** to the need to meet Wales's international commitments and targets set for the consumption of renewable energy provided proposals demonstrate that they will not have an unacceptable adverse impact on the environment. The Proposed Development will provide renewable energy generation of 80MW, which equates to the annual electricity supply of approximately 89,000 homes.
- 6.1.3. The Proposed Development is located within PAA 3 for Wind Energy, as identified under Policy 17 of Future Wales, which the Welsh Government has already modelled the likely impact on the landscape and has found them to be capable of accommodating development in an acceptable way, indicating that the Proposed Development is located in an area considered suitable in principle for wind energy development, subject to the criteria in Policy 18. This PDAS demonstrates that the Proposed Development complies with all criteria in Policy 18.
- 6.1.4. The PCC LDP is also generally supportive of renewable energy projects provided they are not prejudicial to the policies set out. PCC is committed to becoming a net-zero Council by 2030 and to supporting Powys to become a net-zero County by 2050, which this Proposed Development would support.
- 6.1.5. The scale of wind turbines has been designed to balance sustainably high productivity with the environmental sensitivities present within or surrounding the Site. The likely significant effects as a result of a change in the setting of Nant Cwm Gerwyn Cairns, Craig y Llyn Mawr Round Cairn, Blaen y Cwm Ring Cairn, and Lluest Uchaf Cairns and Stone Row Scheduled Monuments are identified within the ES. Compensation in the form of heritage interpretation boards is proposed to provide public benefit through enhancing the public understanding of the monuments and their surrounding landscape. Overall, these potential effects are considered to be outweighed by the environmental, economic, and social benefits of the Proposed Development as set out in this PDAS. This is supported by TAN24 which recognises the public benefit of taking action to reduce carbon emissions should be weighed against any potential harm to the significance of historic assets.

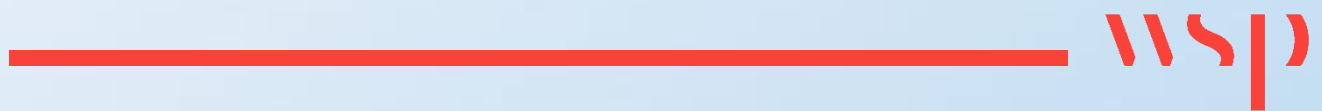
- 6.1.6. The Proposed Development has undergone iterative design development to maximise land available for power generation while minimising environmental effects. The layout of the Proposed Development has been informed by a balanced consideration of technical, economic and environmental constraints. The design of the Proposed Development has also evolved through ongoing engagement with the local community and consultees, ensuring that the design responds appropriately to environmental and local considerations.
- 6.1.7. In terms of potential impacts upon the Ancient Woodland designation and blanket bog, which are listed as examples of 'irreplaceable habitats' in Footnote 129 of PPW12, it should be noted that the Green Infrastructure Statement produced in support of the application demonstrates compliance with the 'step-wise approach'. Nevertheless, as set out in Section 5.6 of this PDAS, whilst there are potential impacts upon irreplaceable habitats, when the Proposed Development is assessed against the whole of PPW12, including the significant benefits it could bring in terms of renewable energy generation and meeting Government targets for net zero, it is considered that this justifies the "wholly exceptional" or "very exceptionally" test in this particular instance.
- 6.1.8. It should also be noted that compensation measures have been outlined within the oHMP. Such measures include enhancing other areas of woodland through coppicing and managed thinning and improving woodland connectivity by planting at the edge of the Ancient Woodland.
- 6.1.9. In terms of blanket bog specifically, the oHMP has been developed with identified measures such as ditch blocking with peat dams to restore the condition of high sensitivity soil and blanket bog within the Site. An area comprising high sensitivity soils, marshy grassland and blanket bog, covering an area of 139.2ha, has been proposed for mitigation. Where areas of blanket bog which cannot be avoided, the 'floating' roadways are proposed to ensure that the blanket bog underneath remains in-situ and would allow the surface habitat to be restored once the 'floating' roadways are removed.
- 6.1.10. The Applicant considers that taking all relevant considerations into account, including policy support at national and local level, the Site's location within the PPA 3 for Wind Energy, the benefits of the Proposed Development (as set out in this PDAS), and the proposed mitigation and compensation measures, these outweigh the potential impacts on the Ancient Woodland designation and a small area blanket bog and therefore constitute the 'wholly exceptional circumstances' under the terms of Step 1b) of PPW12.
- 6.1.11. Overall, the Proposed Development will provide significant benefits in terms of renewable energy generation of 80MW, which equates to the annually supply of approximately 89,000 homes, and will contribute to both national and local renewable energy and carbon reduction targets. Taking the above into consideration, it is demonstrated that the Proposed Development complies with Future Wales, Planning Policy Wales, and the PCC LDP and as such is considered to be acceptable. The overall wider benefits the scheme would bring in terms of renewable energy would also outweigh any potential impacts, which have been minimised as far as possible and/or mitigated. Accordingly, the Applicant would respectfully request that planning permission is granted.

7 GLOSSARY

- ALC – Agricultural Land Classification;
- AIL – Abnormal Indivisible Load;
- AONB – Area of Outstanding Natural Beauty;
- BESS – Battery Energy Storage System;
- CBF – Community Benefit Fund;
- CEMP – Construction Environmental Management Plan ;
- COP – Conference of the Parties;
- DNO – Distribution Network Operator;
- DNS – Development of National Significance;
- EIA – Environmental Impact Assessment;
- ES – Environmental Statement;
- HMP – Habitat Management Plan;
- LDP – Local Development Plan;
- NBB – Net Benefit for Biodiversity;
- OHL – Overhead Line;
- PAA – Pre-Assessed Areas;
- PCC – Powys County Council;
- PDAS – Planning, Design and Access Statement;
- PEDW – Planning and Environment Decisions Wales;
- PPW12 – Planning Policy Wales 12;
- SAC – Special Area of Conservation;
- SIP – Significant Infrastructure Projects;
- SSSI – Site of Special Scientific Interest;
- TAN – Technical Advice Notes;
- TCPA – Town and Country Planning Act;
- UGC – Underground Cable;
- UNFCCC – United Nations Framework Convention of Climate Change; and
- WG – Welsh Government.

Appendix A

SOCIO-ECONOMIC ASSESSMENT



1. INTRODUCTION

This report qualitatively assesses the potential impact of the Proposed Development on the baseline socio-economic situation of the local community (including the Caersws and Rhiwcynon wards that the Site is located within) and wider environment. This includes Powys and nationally in Wales. As determined at the EIA Scoping stage, no significant effects were anticipated for socio-economics and therefore the subject was scoped out of the EIA. This report has therefore been produced to support the Planning Statement for the application.

Following a summary of relevant policy and legislation, this report describes the assessment methodology that has been adopted and the overall baseline conditions.

The current baseline situation has been established with reference to publicly available information sources to reflect likely changes in demographics and economic circumstances in the Study Area. The Proposed Development may result in socio-economic effects at the regional level, for example, in relation to economic development, and at the district/local level, principally affecting those who live in or visit the surrounding area.

It is also pertinent to note that in a socio-economic context, the Proposed Development would contribute to the alleviation of the adverse consequences of climate change. This would be by providing an alternative and renewable source of energy that does not involve the emission of greenhouse gases during operation, compared with the greenhouse gas emissions associated with electricity produced using fossil fuels.

Such beneficial effects cannot readily be ascribed to individuals or groups, nor the scale of the benefit readily considered other than simply in terms of the amount of power generation and total level of emissions avoided. Nonetheless, for the purposes of this assessment, the contribution of renewable energy that provides a net supply of power to the electricity distribution system is a benefit. The Proposed Development would similarly make a beneficial contribution to energy security by reducing the dependence on imported fossil fuels.

2. GUIDANCE

There are no specific guidelines or requirements for economic assessment either set out by the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 or in any other statutory or advisory guidance regarding the preparation of EIAs. The method adopted is therefore one of determining the existing circumstances (the baseline) through desk-based analysis, drawing on a range of statistical information and consultations with regional and local representative bodies as well as members of the community during public exhibitions, opinion polls and through various forms of correspondence.

3. BASELINE

To identify the socio-economic baseline, the following parameters have been used:

Study Area

The economic and employment Study Area used includes the Caersws and Rhiwcynon wards, Powys County Council, Mid Wales as a whole and where relevant Wales at a national level.

The data sources that have been used in the preparation of this socio-economic assessment are referenced in the acronyms & footnotes throughout the report.

Desk Study

The assessment uses standard socio-economic and demographic data from available datasets, including the 2011 and 2021 census where available, NOMIS (the Office for National Statistics website), and other individual research reports. No site-specific survey work has been undertaken by the Applicant for this socio-economic assessment.

Current Baseline

This section sets out the current baseline for this socio-economic assessment and the key receptors against which the Proposed Development has been assessed. These socio-economic receptors are:

- Employment and Economy, including specific consideration of the Tourism Economy and Economic Land Uses on the Site within this;
- Population and Health Services

EMPLOYMENT AND ECONOMY

MANUFACTURING & SUPPLY CHAIN

There are currently no operational manufacturing plants in Wales which specialise in the production and assembly of entire onshore turbines, nor any UK based manufacturers for turbines of the size and capacity required for the Proposed Development. However, Wales has a growing onshore wind supply chain, with several companies contributing to the production and manufacturing of turbine towers and components. For example, Mona Group specialise in the design, fabrication and installation of turbine towers¹, while AIS Wind Energy provides installation operations and secondary turbine components².

Welsh ports and freeports also contribute significantly to the logistics and installation of turbine components, such as Pembroke Dock, Port Talbot, Port of Mostyn and Holyhead³.

There is significant new research and development on the design and manufacture of steel onshore wind turbine towers from Offshore Renewable Energy (ORE) Catapult. Primarily based in Wales, the consortium includes Tata Steel UK, RWE, Bute Energy, Hutchinson Engineering and Ledwood, and recently won £174,000 of support from the Welsh Government⁴.

Elsewhere in the UK, the Project Vanguard initiative is looking to accelerate domestic manufacturing of industrialised foundations, substructures and modular steel components for offshore and onshore turbines⁵.

EMPLOYMENT & INVESTMENT

The Office for National Statistics (ONS) figures for 2024 estimate that the low carbon and renewable energy economy in Wales employed 14,300 people (Full Time Equivalent, FTE) and had a turnover of £344,000. It estimates that there are 10,000 businesses in this sector of the economy in Wales, with around 1,500 of these being in onshore wind⁶.

From the Welsh Government's statistical bulletin on active businesses published in March 2026 there was an estimated 246,500 enterprises active in 2025, employing 1.1 million people with a combined turnover of £148.5

¹ Mona Group (2026) Available at (online): <https://www.monagroup.wales/sectors/renewables/> [Accessed June 2026].

² AIS Wind Energy (2026) Available at (online): <https://aiswindenergy.co.uk/wind-turbine-operations-wales/> [Accessed June 2026].

³ Trade and Invest Wales (2026) Available at (online): <https://tradeandinvest.wales/wales-nation-invested-clean-energy> [Accessed June 2026].

⁴ Catapult Offshore Renewable Energy (2026) Available at (online): <https://ore.catapult.org.uk/media-centre/press-releases/groundbreaking-new-research-begins-on-sustainable-wind-turbine-tower-design-made-with-uk-steel> [Accessed June 2026].

⁵ Project Vanguard (2026) Available at (online): <https://thevanguardproject.co.uk/> [Accessed June 2026].

⁶ ONS (2026) Available at (online): <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/finalestimates/2024#low-carbon-and-renewable-energy-economy-data> [Accessed June 2026].

billion⁷. A parliamentary report on renewable energy in Wales from 2021 shows 58,000 people work in the energy and environment sectors, generating over £4.8 billion in revenue⁸.

The Growing Mid Wales initiative, which includes Powys, found that there are 12,660 businesses generating £3.6 billion GVA annually with higher value manufacturing (a category likely to relate to wind farm construction or maintenance jobs) employing 8,600 people⁹. An analysis into economic and business activity in Powys from 2022 also showed that top sectors with increasing employment were built environment and infrastructure, business services and clean energy generation¹⁰.

The GROW POWYS economic strategy for 2026-2040 identifies energy as a key growth sector, with the council aiming to prioritise green career pathways for employment in Powys and providing sustainable employment opportunities¹¹.

CBI Economics' report 'The Welsh Net Zero Economy in 2025' states that net zero supports 41,000 jobs and generates £4 billion in economic value in the Welsh economy across energy, manufacturing, construction and environmental services. The largest concentration of businesses is in low carbon and renewable energy generation with 445 firms¹².

Support for investment and economic development is established in the Renewable Energy Sector Deal for Wales. The 2026 report highlights how the Development Bank of Wales, Business Wales and the Freeports and Investment Zones programmes are enabling the development and funding of viable project schemes¹³.

Renewable UK Cymru, Solar Energy UK and Marine Energy Wales collaborated on a report produced in 2025 into the potential value of renewable energy in Wales. The report identified that under a supportive policy framework, renewable energy in Wales could generate investment of up to £46.7 billion by 2035. Predictions for the total investment in offshore wind projects by 2035 could be £7.6 billion, of which Welsh businesses could secure £3 billion, and an average annual employment of 3,250 jobs in Wales¹⁴.

The Committee on Climate Change (CCC) recommended that the UK government adopt a net zero emissions target by 2050, which would require a significant acceleration of onshore wind deployment¹⁵. This recommendation was accepted by the UK Government and Parliament has now legislated to set the 2050 net zero target. In the most recent progress report in reducing emissions from 2025, the CCC has set the target for the UK to reduce emissions by 68% by 2030¹⁶. Low-carbon electricity to replace oil and gas is identified as a key area to achieve these targets. Onshore

⁷ Welsh Government (2026) Available at (online): <https://www.gov.wales/sites/default/files/statistics-and-research/2026-03/size-analysis-businesses-2025-012003.pdf> [Accessed June 2026].

⁸ UK Parliament (2021) Available at (online): <https://publications.parliament.uk/pa/cm5802/cmselect/cmwelaf/439/43903.htm> [Accessed June 2026].

⁹ Growing Mid Wales (2026) Available at (online): <https://www.growingmid.wales/oursectoralstrengths> [Accessed June 2026].

¹⁰ UK Data (2022) Available at (online): <https://ukdata.com/reports/powys/> [Accessed June 2026].

¹¹ Powys County Council (2026) Available at (online): <https://powys.moderngov.co.uk/documents/s102913/Appendix%20A%20-%20GROW%20Powys%20-%20an%20Economic%20Strategy.pdf> [Accessed June 2026].

¹² CBI Economics (2026) Available at (online): https://ca1-eci.edcdn.com/The_Welsh_Net_Zero_Economy_in_2025.pdf?v=1779454025 [Accessed June 2026].

¹³ Welsh Government (2026) Available at (online): <https://www.gov.wales/sites/default/files/publications/2026-03/renewable-energy-sector-deal-for-wales.pdf> [Accessed June 2026].

¹⁴ Renewable UK Cymru (2025) Available at (online): <https://www.renewableuk.com/media/yhxj3n1v/2329-renewable-energy-in-wales-report.pdf> [Accessed June 2026].

¹⁵ The CCC (2019) Available at (online): <https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/> [Accessed June 2026].

¹⁶ The CCC (2025) Available at (online): <https://www.theccc.org.uk/publication/progress-in-reducing-emissions-2025-report-to-parliament/#post-52125-Toc200096324> [Accessed June 2026].

wind is the cheapest low-carbon generation technology available, with the total roll-out of offshore and onshore wind and solar capacity increasing in 2024 by more than any increase in the last six years.

This report also notes that the onshore wind industry could support up to 31,000 direct and indirect jobs by 2035. Today, the ONS estimates that each direct onshore wind job supports 1.24 indirect jobs¹⁷. The Office of National Statistics (ONS) estimates that there were 9,900 direct onshore wind jobs across the UK in 2024, a 70% increase from 5,800 in 2023¹⁸.

EMPLOYMENT AND ECONOMY

Table 1 below shows economic activity rates in Powys. The economic activity rate in Powys is higher than the equivalent rates for Wales but lower than the rate for England and Wales as a whole (77.9% compared with 76% in Wales and 79.2% for England and Wales).

Table 1. Economic Activity Rates in Powys

Employment and unemployment (Jan 2025-Dec 2025)				
	Powys (Numbers)	Powys (%)	Wales (%)	Great Britain (%)
All People				
Economically Active†	63,100	77.9	76.0	79.2
In Employment†	60,600	74.4	72.5	75.5
Employees†	43,600	55.8	64.2	65.9
Self Employed†	16,200	18.0	7.9	9.3
Unemployed§	#	#	4.5	4.5
Males				
Economically Active†	34,300	79.4	78.8	82.5
In Employment†	33,500	77.4	74.8	78.5
Employees†	21,900	53.0	64.0	66.5
Self Employed†	11,400	24.5	10.4	11.7
Unemployed§	#	#	5.0	4.7
Females				
Economically Active†	28,800	76.1	73.1	75.8
In Employment†	27,000	70.9	70.2	72.6
Employees†	21,700	59.0	64.5	65.4
Self Employed†	4,700	10.5	5.3	6.9
Unemployed§	#	#	3.9	4.2

Source: <https://www.nomisweb.co.uk/reports/lmp/lad/1778385213/report.aspx>

Table 2 shows that due to the higher levels of economic activity, the unemployment rate in Powys is lower than that of Wales (3.6% compared to 4.5% shown for Wales in Table 1 above).

¹⁷ The CCC (2019) Available at (online): <https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/> [Accessed June 2026].

¹⁸ ONS (2026) Available at (online): <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/experimentalestimatesofgreenjobsuk/march2026#green-jobs-data> [Accessed June 2026].

Table 2. Unemployment Rate in Powys

Model-based unemployment (Jan 2025-Dec 2025)

	Powys (Numbers)	Powys (%)
All People		
Unemployed (Model-Based)§	2,200	3.6

Source: ONS model-based estimates of unemployment

§ - numbers and % are for those aged 16 and over. % is a proportion of economically active

§ - Due to small sample sizes involved in the calculation of the APS unemployment estimate, ONS recommends people use the model-based version, which makes use of both survey and administrative data.

[query dataset...](#)

Source: <https://www.nomisweb.co.uk/reports/lmp/lad/1778385213/report.aspx>

Table 3 below show that the biggest occupation for employment in Powys is skilled trades occupation, accounting for 19.2% of those in employment, followed by professional occupations (17.4%) and associate professional occupations (13.3%). For the skilled trades occupation, the percentages employed are higher than the equivalent figures for Wales and Great Britain overall.

Table 3. Employment by Occupation

Employment by occupation (Jan 2025-Dec 2025)

	Powys (Numbers)	Powys (%)	Wales (%)	Great Britain (%)
Soc 2020 Major Group 1-3	26,000	43.3	48.7	53.6
1 Managers, Directors And Senior Officials	7,500	12.4	9.8	11.5
2 Professional Occupations	10,500	17.4	23.3	27.0
3 Associate Professional Occupations	8,000	13.3	15.4	15.0
Soc 2020 Major Group 4-5	16,900	28.1	19.4	17.4
4 Administrative & Secretarial Occupations	5,300	8.7	9.3	9.1
5 Skilled Trades Occupations	11,600	19.2	10.1	8.2
Soc 2020 Major Group 6-7	9,000	15.0	15.9	14.4
6 Caring, Leisure And Other Service Occupations	5,300	8.7	9.7	8.7
7 Sales And Customer Service Occs	3,800	6.2	6.1	5.6
Soc 2020 Major Group 8-9	8,200	13.6	16.0	14.6
8 Process Plant & Machine Operatives	3,700	6.1	6.1	5.5
9 Elementary Occupations	4,500	7.4	9.8	9.0

Source: ONS annual population survey

Notes: Numbers and % are for those of 16+

% is a proportion of all persons in employment

[compare other areas](#)

[query dataset...](#)

Source: <https://www.nomisweb.co.uk/reports/lmp/lad/1778385213/report.aspx>

Table 4 below shows that the biggest sector for employment in Powys is human health and social work activities at 17.4%, then wholesale and retail trade, followed by the manufacturing industry. Employment in human health and social work is lower than the equivalent figures for Wales as a whole (17.4% compared with 17.7% for Wales) but higher for wholesale and retail trade and manufacturing (15.2% compared to 13.5% and 13% compared to 10.4% respectively).

Table 4. Employment by Industry in Powys

Employee jobs (2024)				
	Powys (Employee Jobs)	Powys (%)	Wales (%)	Great Britain (%)
Total Employee Jobs	46,000	-	-	-
Full-Time	29,000	63.0	65.1	69.2
Part-Time	17,000	37.0	34.9	30.8
Employee Jobs By Industry				
B : Mining And Quarrying	100	0.2	0.1	0.2
C : Manufacturing	6,000	13.0	10.4	7.3
D : Electricity, Gas, Steam And Air Conditioning Supply	150	0.3	0.5	0.4
E : Water Supply; Sewerage, Waste Management And Remediation Activities	350	0.8	1.1	0.7
F : Construction	2,500	5.4	4.8	5.0
G : Wholesale And Retail Trade; Repair Of Motor Vehicles And Motorcycles	7,000	15.2	13.5	13.7
H : Transportation And Storage	1,500	3.3	3.2	5.0
I : Accommodation And Food Service Activities	5,000	10.9	8.2	7.8
J : Information And Communication	800	1.7	2.0	4.5
K : Financial And Insurance Activities	400	0.9	2.7	3.4
L : Real Estate Activities	500	1.1	1.6	1.9
M : Professional, Scientific And Technical Activities	2,250	4.9	5.2	9.3
N : Administrative And Support Service Activities	2,500	5.4	6.3	8.6
O : Public Administration And Defence; Compulsory Social Security	3,000	6.5	8.8	4.9
P : Education	3,500	7.6	9.3	8.6
Q : Human Health And Social Work Activities	8,000	17.4	17.7	14.2
R : Arts, Entertainment And Recreation	1,500	3.3	2.6	2.5
S : Other Service Activities	700	1.5	1.6	1.9
Source: ONS Business Register and Employment Survey : open access				
- Data unavailable				
Notes: % is a proportion of total employee jobs excluding farm-based agriculture				
Employee jobs excludes self-employed, government-supported trainees and HM Forces				
Data excludes farm-based agriculture				
view time-series compare other areas				

Source: <https://www.nomisweb.co.uk/reports/lmp/lad/1778385213/report.aspx>

Employment in accommodation and food service activities is also higher in Powys than in Wales, as is also the case for the construction sector. There are several other sectors where employment is lower in Powys than it is for Wales and Great Britain, such as professional, scientific and technical sectors and education.

The percentage of full-time employees in Powys is lower than for Wales and Great Britain, with the number of part-time employees higher.

The level of earnings is an important indicator of the general health of the local economy but also reflects economic activity in the area. In general, higher earnings indicate a prosperous economy comprised of sectors that pay well, whilst low earnings indicate the opposite. Gross weekly pay (median earnings for employees living in the area) in

Powys is £705.40, lower than that for Wales of £719.30 and lower than the figure for Great Britain of £766.60 per week¹⁹.

Table 5 below shows that 22.1% of the population is economically inactive, which is lower than the equivalent figures for Wales (24%) but higher than that of Great Britain (20.8%) as a whole. Those on long term sick, followed by students and those who fall into the 'other' category, closely followed by those who are retired, make up the majority of those who are economically inactive.

Table 5. Economic Inactivity in Powys

Economic inactivity (Jan 2025-Dec 2025)				
	Powys (Level)	Powys (%)	Wales (%)	Great Britain (%)
All People				
Total	16,200	22.1	24.0	20.8
Student	3,400	20.7	23.6	26.1
Looking After Family/Home	#	#	14.6	18.0
Temporary Sick	!	!	2.7	2.4
Long-Term Sick	5,600	34.5	34.6	28.7
Discouraged	!	!	#	0.4
Retired	2,600	15.9	13.8	12.5
Other	2,600	16.4	10.4	11.9
Wants A Job	2,800	17.2	19.1	21.0
Does Not Want A Job	13,400	82.8	80.9	79.0
Source: ONS annual population survey # Sample size too small for reliable estimate (see definitions) ! Estimate is not available since sample size is disclosive (see definitions) Notes: numbers are for those aged 16-64. % is a proportion of those economically inactive, except total, which is a proportion of those aged 16-64				
view time-series compare other areas query dataset...				

Source: <https://www.nomisweb.co.uk/reports/lmp/lad/1778385213/report.aspx>

TOURISM - ECONOMICS

The significance of tourism in Mid Wales is smaller than the rest of Wales, representing only 8% of visitors and 14% of economic impact from tourism in Wales. However, tourism has an important economic impact in Mid Wales, representing almost 20% of employment in the region²⁰. Table 6 shows how tourists generate £1 million of direct expenditure and £1.45 million of economic impact for Mid Wales, with Powys contributing £752 thousand and £1 million to the overall totals.

Table 6. Key Tourism Indicators in Mid Wales

¹⁹ NOMIS (2024) Available at (online):

<https://www.nomisweb.co.uk/reports/lmp/lad/1778385213/report.aspx?c1=2013265930&c2=2092957698> [Accessed June 2026].

²⁰ Mid Wales My Way (2022) Available at (online):

https://www.midwalesmyway.com/files/ugd/6c2bb3_e999cd974634482e969acea7f9c0e4a6.pdf [Accessed June 2026].

Figure 1: Key tourism indicators¹

CEREDIGION COUNTY COUNCIL	
	2019
Staying visitors	1,366,000
Day visitors	1,576,000
Direct Expenditure (£)	296,880,000
Economic Impact (£)	402,940,000
Direct Employment FTEs	4,772
Total Employment FTEs	5,854
POWYS COUNTY COUNCIL	
	2019
Staying visitors	1,972,000
Day visitors	3,011,000
Direct Expenditure (£)	752,800,000
Economic Impact (£)	1,012,030,000
Direct Employment FTEs	10,007
Total Employment FTEs	12,651

Source: https://www.midwalesmyway.com/files/ugd/6c2bb3_e999cd974634482e969acea7f9c0e4a6.pdf

There was an annual average of 1.9 million overnight domestic trips, 99,000 international visits and 12.3 million tourist day trips made to Mid Wales between 2017-2019, with an annual associated spend of £994 million. Mid Wales received 19% of overnight domestic trips in total for Wales, as well as 10% of international visits and 13% of day trips. The annual average for tourism expenditure in Mid Wales rose by 32% from £755 million in 2016-2018 to £994 million in 2017-2019, while tourism expenditure for Wales overall fell by 2% between the same period²¹.

Between 2017-2019 Powys received 0.71 million visits, accounting for 7% of all trips to Wales, resulting in the 5th highest share of visitor trips across all Welsh Local Authorities. Powys averaged 2.27 million nights across that time, a 7% share, with an average spend of £114 million²².

From Table 7 below, the total economic impact of tourism on Powys in 2023 was £1.29 billion, a 1.7% increase from 2022. The total visitor days remained the same between 2022 and 2023 at 11.76 million, with an increase in staying visitor days by 1.5%. Total visitor numbers decreased by 2.5% to 4.68 million, which was mainly the result of a significant decrease in the number of day visitors. 12,176 jobs are supported by tourism, a 1% increase from 2022.

²¹ Powys County Council (2022) Available at (online): <https://en.powys.gov.uk/article/16130/STEAM-Annual-Report-2022> [Accessed June 2026].

²² Welsh Government (2024) Available at (online): <https://www.gov.wales/sites/default/files/publications/2024-11/visitor-accommodation-register-and-levy-wales-bill-compendium-of-visitor-data-sources.pdf> [Accessed June 2026].

Table 7. STEAM Summary for Powys Council

Total economic impact of tourism £Bn	1.29
% change on 2022 (£'s 2023)	1.7%

Total visitor days (Millions)	11.76
% change on 2022	0.0%
Staying visitor days (Millions)	9.12
% change on 2022	1.5%

Total visitor numbers (Millions)	4.68
% change on 2022	-2.5%
Number of staying visitors (Millions)	2.04
% change on 2022	0.9%
Number of day visitors (Millions)	2.64
% change on 2022	-4.9%

Number of FTE jobs supported by tourism spend	12,176
% change on 2022	1.0%

Source: <https://en.powys.gov.uk/article/16130/STEAM-Annual-Report-2022>

The national tourism strategy in Wales is guided by Welcome to Wales: Priorities for the Visitor Economy 2020-2025. The framework aims to grow tourism for the good of Wales, with the Wellbeing of Future Generations (Wales) Act 2015 as its basis. 'Inherently Welsh' in nature, the report balances two elements of Bro and Byd, Welsh language words for local community/a sense of purpose and place and international levels of quality and ambition respectively²³.

The core offer is formed of natural landscapes, community, adventures and activities, guided by a unique Welsh welcome and national experiences such as The Wales Way. Performance indicators include a growth in expenditure from overnight visitors by 10% by 2020, as well as an increase in employment in the tourist sector, attracting new visitors, growing visitor yield, seasonal spread, market share and visitor satisfaction²⁴.

Powys County Council's local priorities for tourism are based on a destination management approach in partnership with Visit Wales, partner organisations, local businesses and community groups. The focus is on four destinations in Powys; Brecon Beacons, Cambrian Mountains, Dyfi Biosphere and Mid and North Powys Destination Network²⁵.

The council have also produced the Powys 2040+ Plan, with visitor economy being one of the five critical areas of focus. The plan aims to deliver a Powys Visitor Economy Strategy focusing on investing in eco-accommodation, cultural festivals and low carbon active travel routes. It also aims to position Powys as 'The Events Capital of Wales' and the 'The Green Heart of Wales', promoting sustainable tourism and cultural growth²⁶.

²³ Welsh Government (2020) Available at (online): <https://www.gov.wales/sites/default/files/publications/2020-02/welcome-to-wales-priorities-for-the-visitor-economy-2020-2025.pdf> [Accessed June 2026].

²⁴ Welsh Government (2020) Available at (online): <https://www.gov.wales/sites/default/files/publications/2020-02/welcome-to-wales-priorities-for-the-visitor-economy-2020-2025.pdf> [Accessed June 2026].

²⁵ Powys County Council (2026) Available at (online): <https://en.powys.gov.uk/article/16112/Local-Priorities---Powys> [Accessed June 2026].

²⁶ Powys County Council (2025) Available at (online): <https://powys.moderngov.co.uk/documents/s98685/Strategic%20Economic%20Framework%20-%20Workshop%20slides.pdf> [Accessed June 2026].

The economic strategy for 2026-2040, GROW POWYS, identifies tourism, events and creative industries as a growth sector. The council aims to raise the profile of Powys as a visitor destination, work with key event partners, such as Green Man Festival and the Hay Festival, and work with the hospitality sector to overcome seasonal challenges²⁷.

TOURISM – VISITOR STATISTICS AND ATTRACTIONS

The top ten free and paid visitor attractions in Mid Wales in 2021 are set out in Table 8 below. The top free and paid attractions in Mid Wales, Elan Valley and Powis Castle and Garden, are in Powys. The wildlife or nature reserve (WL) category is the most popular in Mid Wales, making up 50% of the most popular attractions. The most popular paid attraction in Powys is in the historic property (HP) category.

Table 8. Top Ten Attractions in Mid Wales 2021

Top ten attractions in Mid Wales

Name	Paid / Free	Owner	Category	No. of visits
1 Elan Valley	Free	DCWW	WL	163,582
2 Ynyslas National Nature Reserve	Free	NRW	WL	132,691*
3 Powis Castle and Garden	Paid	NT	HP	120,318
4 Nant yr Arian	Free	NRW	WL	111,206*
5 Constitution Hill Ltd trading as Aberystwyth Cliff Railway	Paid	PO	R/T	64,381
6 Devil's Bridge Falls	Paid	PO	CP	58,000*
7 Dyfi Forest	Free	NRW	WL	53,653*
8 Quarry Pottery	Free	PO	IND	50,000*
9 Tregaron (Cors Caron) National Nature Reserve	Free	NRW	WL	47,703*
10 The Vale of Rheidol Railway Ltd	Paid	PO	R/T	42,690

Figures denoted with an asterisk (*) represent estimated visitor figures.

Source: <https://www.gov.wales/sites/default/files/statistics-and-research/2022-08/visits-to-tourist-attractions-in-wales-2021.pdf>

The findings in Table 8 align with trends found in the Mid Wales regional tourist study from 2022. The study found that the historical sites and natural landscape features were popular destinations in the area, highlighting the strong cultural identity and unique rural landscape. There is also a focus on the coastline, nature reserves and water features across Mid Wales, creating a tourist experience for a range of visitors, such as nature lovers and history enthusiasts. Mid Wales also attracts visitors interested in food and restaurants, from the legacy of the region's farming and fishing industries²⁸.

LAND USE

The land across the Proposed Development Site comprises predominantly agriculture pasture for sheep grazing, which has been sub-divided by fences and hedgerows into a pattern of regular, large fields. A large agricultural building is located within the northern part of the Site and farm buildings are located on the southern boundary of the Site, therefore the economic land use of the Proposed Development Site is primarily farmland.

²⁷ Powys County Council (2026) Available at (online): <https://powys.moderngov.co.uk/documents/s102913/Appendix%20A%20-%20GROW%20Powys%20-%20an%20Economic%20Strategy.pdf> [Accessed June 2026].

²⁸ Mid Wales My Way (2022) Available at (online): https://www.midwalesmyway.com/files/ugd/6c2bb3_e999cd974634482e969acea7f9c0e4a6.pdf [Accessed June 2026].

POPULATION AND HEALTH SERVICES

POPULATION

In Powys the population size has increased by 0.2% from 133,000 in the 2011 census to 133,200 in the 2021 census. Over the same period the population in Wales grew by 1.4%, equivalent to 44,000 people. In 2021 Powys ranked 11th for total population out of 22 local authorities in Wales, maintaining the same position it had in 2011. Powys has a population density of 26 people per km², making it one of the most sparsely populated areas in the UK²⁹.

Between 2011 and 2021 there has been an increase of 17.7% in people aged 65 and over. The increase in Powys in this population sector is greater than Wales overall, at 22.3%. Powys has an older age population than both the Welsh and UK average, with 28% of the population being over 65 in 2022 compared to the Welsh and UK average of 21% and 19%. The population group 80 and over has seen the largest increase of all age groups between 2000-2020, with a 53% increase compared to a 39% increase in Wales as a whole³⁰.

In 2021 there were more females (50.7%) than males (49.3%) living in Powys. There were also more females (51.1%) than males (48.9%) living in Wales overall³¹.

Between 2000-2020, the population of Powys increased by 5% from 126,134 in 2000 to 133,030 in 2020. This is lower than the population increase for Wales overall (9%). This increase took place largely between 2000-2010, with the last 10 years showing an increase of 0.1%³².

The most recent population projections for Powys show that if current trends continue the population is expected to rise to 142,226 in 2040 which is a 6% increase from the population in 2022³³. Table 9 below shows the projected population increase up to 2047 which projects that there would be a higher increase in the male population compared to the female population, with a total overall increase in the population of 7.8%.

Table 9. Powys' Projected Population Increase to 2047

Gender	2022	2032	2047	% Change from 2022 to 2047
Males	66,168	68,740	71,796	8.5
Females	67,821	70,169	73,528	7.8
Total	133,989	138,907	145,326	7.8

Source: <https://en.powys.gov.uk/article/11140/Wellbeing-Information-Bank-View-information-about-population-projections>

²⁹ ONS (2021) Available at (online): <https://www.ons.gov.uk/visualisations/censuspopulationchange/W06000023/> [Accessed June 2026].

³⁰ Powys County Council (2022) Available at (online): <https://en.powys.gov.uk/article/5794/Full-Well-being-assessment-analysis> [Accessed June 2026].

³¹ ONS (2021) Available at (online): <https://www.ons.gov.uk/visualisations/censuspopulationchange/W06000023/> [Accessed June 2026].

³² Powys County Council (2022) Available at (online): <https://en.powys.gov.uk/article/5794/Full-Well-being-assessment-analysis> [Accessed June 2026].

³³ Powys County Council (2026) Available at (online): <https://en.powys.gov.uk/article/11140/Wellbeing-Information-Bank-View-information-about-population-projections> [Accessed June 2026].

Population data at the ward level is available from ONS. The Site is located within two wards in Powys: Caersws and Rhiwcynon. The population of Caersws and Rhiwcynon in 2024 was 2,290³⁴ and 2,248³⁵ respectively. This is an increase on the population in 2011 from 1,586 for Caersws³⁶ and 2,180 for Rhiwcynon³⁷.

HEALTH

Wellbeing of Wales 2024 provides an overview of health in Wales, highlighting health inequalities³⁸. Some key findings from this report are:

- Life expectancy – overall life expectancy fell in the most recent period available (2020-22) which includes the COVID-19 pandemic. The life expectancy gap between men and women has reduced following higher death rates during the pandemic. Life expectancy at birth was 81.8 for females and 77.9 for males for 2020-22. Healthy life expectancy was 61.1 for males and 60.3 for females, a decrease for both compared with 2011-13.
- Mortality – in 2023 there was an increase in deaths from all causes from 2022, but lower than the high number of deaths during 2020 and 2021. The mortality rate in 2023 was still higher than historical numbers before the pandemic. Age standardised mortality rates (ASMRs) account for population size and age structure. Based on data up to 2022, ASMRs have been improving, falling from 1,406 deaths per 100,000 people in 1994 to 1,056 in 2022.
- Inequalities in life expectancy and mortality – the gap in avoidable mortality between the most and least deprived areas widening to the highest level since 2003 for males and since the data time series began for females. The life expectancy gap between the most and least deprived areas is at 7.6 years for males and 6.4 years for females, which has been increasing in recent years, suggesting growing inequality.

As well as the wider profile for Wales, there is a Wellbeing Assessment for Powys which includes a range of indicators on health and lifestyle, education, economy, community, environment and poverty³⁹. The overall picture is mixed, with some indicators being better than the national average for Wales, such as life expectancy, healthy life expectancy, admissions to mental health facilities and rates of childhood obesity. However, there are some indicators where the measure is higher than the Welsh average, including rates of children receiving free school meals and the rate of dementia. Adults in Powys tend to have healthier lifestyle behaviours compared to the rest of Wales, with comparably low rates of smoking and higher rates of physical activity, but some indicators such as alcohol consumption are higher than the Welsh average.

2021 Census data shows that there were 4,770 people of working age on long term sick or disabled in Powys, which equates to 4.2% of those of working age. This is lower than the figure for Wales overall at 5.9%⁴⁰.

With regards to hospitals, Powys does not have a district general hospital, and residents must travel out of county to access certain health services. There is a large difference in distances travelled to reach a district general hospital

³⁴ NOMIS (2021) Available at (online): https://www.nomisweb.co.uk/sources/census_2021/report [Accessed June 2026].

³⁵ NOMIS (2021) Available at (online): https://www.nomisweb.co.uk/sources/census_2021/report [Accessed June 2026].

³⁶ NOMIS (2011) Available at (online): https://www.nomisweb.co.uk/sources/census_2011/ks/report?compare=W04000259 [Accessed June 2026].

³⁷ NOMIS (2011) Available at (online): https://www.nomisweb.co.uk/sources/census_2011/ks/report?compare=W05000343 [Accessed June 2026].

³⁸ Welsh Government (2024) Available at (online): <https://www.gov.wales/wellbeing-wales-2024-healthier-wales-html#153083> [Accessed June 2026].

³⁹ Powys County Council (2022) Available at (online): <https://en.powys.gov.uk/article/5794/Full-Well-being-assessment-analysis> [Accessed June 2026].

⁴⁰ NOMIS (2024) Available at (online): <https://www.nomisweb.co.uk/reports/lmp/lad/1778385213/report.aspx> [Accessed June 2026].

depending on locality, ranging from 86 minutes to nine minutes. There are several community hospitals and health centres across the county⁴¹.

There are 27 medical practices across Powys⁴². As Powys is a predominantly rural area, access to services is challenge for residents with 19.4% of patients travelling over 15 minutes to access a GP. There are 26,330 registered patients in Powys that must travel more than 30 minutes round trip to the GP⁴³.

DEPRIVATION

The Welsh Index of Multiple Deprivation (WIMD) is the measure of relative deprivation for small areas in Wales. There are 54 indicators of deprivation informing eight domains: Income; Employment; Health; Education; Access to Services; Housing; Community Safety; and Physical Environment. The WIMD ranks areas from 1 to 1,917 according to their relative deprivation levels.

From the WIMD 2025, Powys had one small area in the most deprived 10% and 29% concentration of areas in the most deprived half of Wales, which is the second lowest in the country. In the Access to Services domain, Powys was the local authority with the highest proportion of areas in the 10% most deprived⁴⁴.

The site is located within the Caersws and Rhiwcynon wards. Caersws is ranked 1070 out of 1917 Lower Super Output Areas (LSOAs) in Wales while Rhiwcynon is 1141 out of 1917. This places both wards in the 50% least deprived. Both wards rank highly for highly for income, employment, health and education, suggesting the overall area surrounding the Proposed Development is not deprived, although both are in the 10% most deprived for access to services⁴⁵.

Future Baseline

From the information acquired for this assessment, there is no indication that the baseline is in the process of any significant transitions in respect of population, employment and economy, health, tourism and recreation, and the renewable energy industry, and would be expected to remain largely as described above, without the Proposed Development taking place.

4. CONSULTATION

As set out in the EIA Scoping Report for this Proposed Development, socio-economics has been scoped out from being a chapter in the ES and no consultation responses were received which referenced socio-economic effects.

5. ASSESSMENT METHODOLOGY

The Proposed Development has the potential to generate a range of socio-economic effects. The method adopted for this assessment draws on publicly available information and is based upon the approach set out in Morris and Therivel (2009)⁴⁶. This is:

⁴¹ Powys County Council (2022) Available at (online): <https://en.powys.gov.uk/article/5794/Full-Well-being-assessment-analysis> [Accessed June 2026].

⁴² NHS Wales (2026) Available at (online): <https://111.wales.nhs.uk/localservices/?s=GPSurgeries&pc=n&sort=default> [Access June 2026].

⁴³ Wales Centre for Public Policy (2018) Available at (online): <https://wcpp.org.uk/blog-posts/rural-poverty-the-case-of-powys/> [Accessed June 2026].

⁴⁴ Welsh Government (2025) Available at (online): <https://www.gov.wales/welsh-index-multiple-deprivation-2025-series> [Accessed June 2026].

⁴⁵ Data Map Wales (2025) Available at (online): https://datamap.gov.wales/maps/welsh-index-of-multiple-deprivation-wimd-2025/view# [Accessed June 2026].

⁴⁶ Morris and Therivel (2009) Available at (online): <https://www.taylorfrancis.com/books/edit/10.4324/9780203892909/methods-environmental-impact-assessment-peter-morris-riki-therivel-peter-morris-riki-therivel> [Accessed June 2026].

- Establishing the baseline to determine the existing socio-economic characteristics of the Site and its surrounding area (receptors);
- Identify the potential change that result from the Proposed Development, with consideration given to its magnitude, temporal scope (e.g. short/long term, temporary/permanent) and valency (i.e. adverse/beneficial);

As mentioned above, there is no specific guidance on identifying effects for socio-economics in the context of an EIA; however, there are several documents that can guide assessments for industry and economy and recreation and tourism effects. Predicted economic and employment effects can be quantified using the guidance set out in a report by Renewable UK (2015)⁴⁷. This includes consideration of effects during construction, operation and decommissioning. This guidance has been used together with updated datasets, though recognising that the geographic distribution of economic effects is project specific.

Employment Impacts

The employment impacts within the Study Area are defined in terms of FTE jobs associated with predicted capital expenditure. The assessment has therefore focussed on the following impact categories:

- Direct economic impacts: jobs and capital spend that are wholly or largely related to construction, decommissioning, and operation and maintenance of a development;
- Indirect economic impacts (positive and negative): jobs and capital spend generated in the economy of the Study Area in the chain of suppliers of goods and services to the direct activities;
- Induced economic impacts: jobs and capital spend created by direct and indirect employees' spending in the Study Area or in the wider economy; and
- Wider economic (catalytic) impacts (positive and negative): employment and income generated in the economy related to the construction and operation of the Proposed Development. This includes the effects on inward investment, elsewhere within the construction sector (e.g. as a result of worker supply) and on other sectors of the economy.

For employment effects, the availability of labour and skills is critical in accommodating the demands, needs and requirements of the Proposed Development.

6. SCOPE OF THE ASSESSMENT

Spatial Scope

The spatial scope of this assessment covers the Site, together with the surrounding area as described under 'Study Area' as described in **Section 3.0**.

Temporal Scope

The temporal scope of this assessment is consistent with the period over which the Proposed Development would be carried out and therefore covers the construction and operational periods which would be approximately 24 months and 40 years respectively. Decommissioning is also considered, although this would only take place at the end of the 40-year operating period, unless an extension to the operating period was subsequently granted.

Potential Receptors

The report will consider the effects of the Proposed Development on employment, the wider economy and on population and health services. This will include the employment opportunities for local suppliers with relevant construction and maintenance experience during the construction and operational phases of the Proposed Development. The assessment will include both short and long term opportunities and will:

- Consider the scale and nature of any economic benefits for local, regional or nationally based businesses, employment opportunities and any adverse effects on existing businesses

⁴⁷ Renewable UK (2015) Available at (online): https://cdn.ymaws.com/www.renewableuk.com/resource/resmgr/publications/reports/onshore_economic_benefits_re.pdf [Accessed June 2026].

- Consider whether the Proposed Development would affect the population or health services.

7. IDENTIFICATION AND THE EVALUATION OF KEY EFFECTS

Employment and Economy

CONSTRUCTION PHASE

Indicative construction requirements are detailed in Table 10 below.

Table 10. Indicative Construction and Decommissioning Requirements

Required Services	Details
Accommodation	Workers would require the use of local accommodation.
Local amenities	All workers during the construction period of the Proposed Development would require food, drink and other provisions, bringing trade to the local area.
The Site security	Throughout the construction of the Proposed Development and its decommissioning, security workers from the local area would be required to protect assets and ensure compliance with CDM Regulations.
Abnormal Load (turbines) and Crane Haulage	Specialist haulage contractors would be required to deliver turbine components and cranes to the Site during the construction period for the Proposed Development.
Road construction	New access tracks would be required for the Proposed Development. A local supplier may be required for road surfacing.
Balance of Plant construction	Infrastructure including temporary construction compounds and borrow pits would potentially be required for construction of the Proposed Development. This work would be undertaken by civil engineering contractors.
Substation detailed design and construction	Specialist contractors would be required to design and construct an extension building for the on-site control building and substation, which would house all electrical and communications equipment for the Proposed Development.
Turbine foundation detailed design and construction	The final design of the foundations depends on the ground conditions and exact turbine specifications.
Turbine manufacture	The turbine manufacturer and manufacturing location is still to be confirmed. This may be outside the UK.

Turbine erection	Once transported to the Site, all turbines would be erected into position by specialist contractors likely to be available within Wales.
Landscaping	Post construction landscaping works may be undertaken by a local contractor.
Electrical switchgear design & installation	The Proposed Development requires the design and on-site installation of complex electrical systems and cabling.
Power transmission design	All electricity transmission cabling would need to be designed by a specialist company.
Fencers	Temporary construction fencing, and any permanent fencing required, may be installed by local contractors.
Fuel supplies and delivery	Machinery used during construction would require fuel supplies provided by a local distributor.
Construction materials supply and delivery	Materials for the construction phase would be sourced from local suppliers where possible including bricks, mortar, cement, concrete, stone, wood, steel, cabling, electricity poles etc.
Sub-contractors	Electrical fitters, carpenters, painters & decorators, plumbers may be required during the construction phase for various tasks.

ECONOMY

Estimates provided by the Applicant for construction spend show a predicted £118m total spend, made up of approximately:

- £3m in development and management costs
- £80m for turbine procurement and associated plant
- £15m for the electrical connection and BESS
- £20m for civil engineering and other works

This corresponds to a cost of around £1.5m per MW of capacity.

Arup's report on renewable energy generation cost and technical assumptions (2025) estimates that the total capital cost of a wind farm in 2030 would be around £1.6m per MW installed (for a medium-capacity MW scheme)⁴⁸. On the basis of 11 turbines with a power output of 74.8-79.2MW, the capital cost of the Proposed Development is estimated to be £120-127m⁴⁹, which is slightly higher than the Applicants estimate but remains in a similar range.

Evidence from UK government and Arup cost studies indicates that the capital cost of onshore wind developments is dominated by turbine supply, with the remaining expenditure associated with civil engineering works, electrical

⁴⁸ 1,588 £/kW x 1,000 = £1.588m/MW for 2025. Predicted % increase for 2030 = 99.3%, 1,588,000 x 0.993 = 1,576,884 = £1.6m/MW

⁴⁹ ARUP (2024) Available at (online):

<https://assets.publishing.service.gov.uk/media/68ba91f411b4ded2da19fe92/onshore-wind-and-solar-pv-cost-electricity-report-update-2024.pdf> [Accessed June 2026].

infrastructure and installation activities⁵⁰. International evidence underpinning UK cost assumptions suggests that turbine manufacturing typically accounts for approximately 65-75% of total capital costs, with balance-of-plant costs (including construction, installation and grid connection) comprising the remaining 25-35%^{51,52}. ClimateXChange's report (2015) supports this analysis, identifying that 65% of capital costs result from turbine manufacturing⁵³.

Within the balance-of-plant costs, on-site construction works typically represent 10-15%, while grid connection and electrical infrastructure typically represent around 10-20%, with installations and logistics making up the remainder of the capital costs⁵⁴. On this basis, as the Proposed Development has an estimated total capital cost of £123m, turbine manufacturing costs would be at least £80m, on-site construction works at least £12m, grid connection and electrical infrastructure at least £12m and installation and logistics at least £19m.

Extrapolating data from research into construction spend for onshore wind farm projects in Scotland, around 12% of construction spend could go to the local authority area. For a Proposed Development of this scale that is estimated as being around £1.8m per annum over a 24 month construction programme. The majority of spend would therefore be expected to be at a wider Welsh or UK level.

EMPLOYMENT

DESNZ's publication on job estimates for wind generation by 2030⁵⁵ uses a job intensity ratio for construction of 1,650 FTE per GW for onshore wind from a ClimateXChange report from 2024⁵⁶. This would be equivalent to 1.65 FTE per MW which, if replicated during the construction phase of the Proposed Development, would be 123 (74.8 x 1.65) to 131 (79.2 x 1.65) FTE jobs from total construction, noting that not all of these roles would be required at the same time in the construction phase. Applying the assumed local share (12%) suggests that 14.8-15.7 FTE jobs could be supported within the Powys area.

The average total construction expenditure per FTE during the construction phase for the Proposed Development is therefore estimated to be £214,000 to £239,000 per FTE.

From the ONS data referenced above in Table 4, Powys has a higher percentage of workers in the construction sector than in the rest of Wales and Great Britain (5.4% compared to 4.8% and 5%). This suggests the increased potential for benefits to the local economy from the proximity of workers to the Proposed Development Area. However, it should be noted that the number of construction workers employed would depend on the duration of the construction programme and may vary if the programme is altered. It is further acknowledged that the number of construction related FTEs would vary depending on project specific requirements and that construction phase employment would only be sustained for a temporary period.

In addition to the predicted employment levels calculated above, it is expected that further employment would be sustained or created through indirect and induced economic effects. Indirect effects would be from employment generated in the wider supply chain and services whereas induced effects occur from the spending of wages by

⁵⁰ ARUP (2024) Available at (online):

<https://assets.publishing.service.gov.uk/media/68ba91f411b4ded2da19fe92/onshore-wind-and-solar-pv-cost-electricity-report-update-2024.pdf> [Accessed June 2026].

⁵¹ International Energy Agency (IEA) (2021) Available at (online): <https://www.iea.org/data-and-statistics/charts/onshore-wind-investment-cost-structure-by-component-and-by-commodity-breakdown-3> [Accessed June 2026].

⁵² NREL (2022) Available at (online): <https://docs.nrl.gov/docs/fy23osti/84774.pdf> [Accessed June 2026].

⁵³ ClimateXChange (2015) Available at (online): https://www.climateexchange.org.uk/wp-content/uploads/2023/09/main_report_-_life_cycle_costs_and_carbon_emissions_of_onshore_wind_power.pdf [Accessed June 2026].

⁵⁴ IEA (2021) Available at (online): <https://www.iea.org/data-and-statistics/charts/onshore-wind-investment-cost-structure-by-component-and-by-commodity-breakdown-3> [Accessed June 2026].

⁵⁵ DESNZ (2025) Available at (online): <https://www.gov.uk/government/publications/renewable-technologies-future-job-estimates-methodology/job-estimates-for-wind-generation-by-2030-methodology-note> [Accessed June 2026].

⁵⁶ ClimateXChange (2024) Available at (online): <https://www.climateexchange.org.uk/projects/workforce-and-skills-requirements-in-scotlands-onshore-wind-industry/> [Accessed June 2026].

employees in direct or indirect employment, such as hospitality and retail sectors⁵⁷. This would enable the retention of employment related economic benefits in the local economy. DESNZ estimates there to be 1.4 indirect jobs to 1 direct job resulting from onshore wind generation⁵⁸. Applying this ratio to the construction employment estimate suggests that 172-183 indirect FTE jobs could be supported, with 50-52 indirect FTE in Wales and 12-13 indirect FTE in Powys.

However, the extent of these indirect and induced employment effects cannot accurately be determined until individual contractors are appointed, which would only take place after any consent for the Proposed Development is granted. Furthermore, indirect and induced employment benefits would also be dependent on the extent to which employees of the successful contractors decide to spend their income on local goods and services.

TOURISM ECONOMY

From Regeneris' report on the tourism impact of onshore wind farms, commissioned by the Welsh Government in 2019, the evidence suggests that most people do not react negatively to wind farm development or change their visiting behaviour as a result. However, while there has been no evidence of a fall in visitor numbers due to disruption during construction, the construction phase was identified as a concern by businesses in relation to the closure or diversion of public footpaths⁵⁹.

With regards to the Proposed Development, significant effects are unlikely given the temporary nature of this activity (approximately 24 months) and the fact that most effects on tourism and recreational receptors will only occur towards the end of the construction phase, as the proposed development nears its operational state (**Chapter 7: Landscape and Visual Impact Assessment**). Some of the earlier work would however be visible from Public Rights of Ways close to the Site Boundary.

ACCOMMODATION

Employment associated with the construction of the Proposed Development would be likely to increase occupancy in nearby hotels and other short-term accommodation, as well as increasing trade in local hospitality and retail establishments. This is especially the case in rural local economies, with the induced personal expenditure of workers depending on the remoteness of the construction site and the availability of accommodation and related hospitality and retail⁶⁰. There are several accommodation places in the wider area surrounding the Proposed Development Site which could provide places to stay for construction workers during the construction of the Proposed Development.

On this basis it is considered that the area surrounding the Site has a relatively unconstrained level of accommodation. Given the predicted FTEs for the entire construction phase, it is expected that there could be a significant number of hotel bookings during the construction phase, subject to the exact number of construction workers and the length of stay, but this would not place undue strain on local accommodation availability.

LAND USE

The Proposed Development Site is primarily agricultural farmland used for sheep grazing. During the construction phase, there may be some temporary disturbance to land use, including restrictions on grazing activities associated with turbine installation, access track construction and associated infrastructure works. These effects would be short-term in nature and largely confined to the construction period, after which many of the affected areas would be reinstated and returned to agricultural use. Therefore, any construction-related effects on land use are limited (in terms of the land take when considered against the total land available for agriculture), temporary and not significant.

⁵⁷ DESNZ (2025) Available at (online): <https://www.gov.uk/government/publications/renewable-technologies-future-job-estimates-methodology/job-estimates-for-wind-generation-by-2030-methodology-note> [Accessed June 2026].

⁵⁸ DESNZ (2025) Available at (online): <https://www.gov.uk/government/publications/renewable-technologies-future-job-estimates-methodology/job-estimates-for-wind-generation-by-2030-methodology-note> [Accessed June 2026].

⁵⁹ Welsh Government (2014) Available at (online): <https://powys.moderngov.co.uk/Data/Planning,%20Taxi%20Licensing%20&%20Rights%20of%20Way%20Committee/20140501/Agenda/xExecutive%20summary%20WG%20report.pdf> [Accessed June 2026].

⁶⁰ RenewableUK Cymru (2013) Available at (online): <https://studylib.net/doc/18298357/economic-opportunities-for-wales-from-future-onshore-wind?p=11> [Accessed June 2026].

OPERATIONAL PHASE

ECONOMY

No information is available from the Applicant in relation to operational costs. The Arup report on renewable energy generation costs (2025) estimates that annual operational (including maintenance) costs for medium capacity onshore wind farms in 2030 are in the range of approximately £40,100 per MW of installed capacity per year⁶¹. On this basis, the annual operational cost of the Proposed Development is estimated to be approximately £3.0-3.2m per year. When applied to the project lifetime of 40 years, this equates to approximately £120-128m for the full project.

In terms of the geographical distribution of operations expenditure, the RUK (2012) report on direct and wider economic impacts of onshore wind states that 90% of expenditure remains within the UK, with 65% occurring within the region and 29% occurring locally⁶². Therefore, it is predicted that the Proposed Development could result in £0.87-0.93m of local annual operations expenditure (around £34.8-37.2m over the 40-year lifespan of the Proposed Development). A total of approximately £1.95-2.08m of annual operations and maintenance expenditure (equivalent to £78.0-83.2m over 40 years) is estimated to be retained within Wales as a whole.

It should however be noted that the RUK report identifies that operating costs vary throughout the life of a wind farm, with costs noticeably increasing from the baseline position after five years due to increased maintenance requirements.

The operation and maintenance of the Proposed Development would provide an annual contribution to the local economy throughout its consented operating period together with the anticipated community benefit contribution.

EMPLOYMENT EFFECTS

There would be potential for both national and local employment for the maintenance of the Proposed Development. It is not anticipated that the Proposed Development would result in any job losses taking account of the minimal effect on land use and the not significant effect on tourism and recreation as assessed below.

DESNZ estimates that the job-intensity ratio for operations and maintenance is 50 FTE per GW⁶³, equal to 0.05 FTE per MW, which, if replicated during the operations phase of the Proposed Development, would be 3.74 (74.8 x 0.05) to 3.96 (79.2 x 0.05) FTE jobs. Based on Arup cost assumptions, the annual operational cost is estimated to be £3.1-3.3m, equating to £0.8-0.9m of expenditure per FTE per year. This implies a relatively low direct employment intensity during the operational phase, reflecting the capital-intensive nature of onshore wind generation.

In terms of the geographical distribution of predicted operations and maintenance employment:

- Local operations and maintenance activity could support 1.08-1.15 FTE jobs per annum within Powys during the operational phase of the Proposed Development; and
- Operations and maintenance activity within Wales as a whole could support 2.43-2.57 FTE jobs per annum.

The location and duration of all jobs would depend on the specific operational and maintenance requirements of the Proposed Development. In summary, the Proposed Development is expected to support around 1.1 FTE jobs locally and 2.5 FTE jobs within Wales during the operational phase.

⁶¹ 1,588 x 1,000 = £1.588m/MW for 2025. Predicted % increase for 2030 = 99.3%, 1,588,000 x 0.993 = 1,576,884 = £1.6m/MW

⁶² RenewableUK (2012) Available at (online):

<https://assets.publishing.service.gov.uk/media/5a74dfc7ed915d502d6cbaec/5229-onshore-wind-direct--wider-economic-impacts.pdf> [Accessed June 2026].

⁶³ DESNZ (2025) Available at (online): <https://www.gov.uk/government/publications/renewable-technologies-future-job-estimates-methodology/job-estimates-for-wind-generation-by-2030-methodology-note> [Accessed June 2026].

TOURISM ECONOMY

Whilst there could be visibility of the Proposed Development from tourist accommodation receptors, the evidence suggests that the operational phase of onshore wind developments does not have a negative impact on the wider tourism economy.

Welsh Government research from 2014 concluded that Wales's tourism areas and assets are unlikely to be affected by wind farm developments⁶⁴, while BiGGAR Economics found no relationship between wind farm development and trends in tourism employment in Scotland and employment in tourism-related sectors grew by 20% during the study period (2009-2019)⁶⁵.

An evaluation commissioned by Northumberland County Council in 2014 found that 63% of tourism businesses reported no negative impact⁶⁶. This is supported by findings from a 2012 study to assess visitor attitudes to wind farms, where 71% of tourists stated that potentially greater numbers of wind farms would not negatively impact their likelihood of visiting⁶⁷.

Therefore, the findings suggest that the Proposed Development would be unlikely to generate any significant adverse effects relating to the visitor attractiveness or tourism potential of such receptors (in terms of accommodation, occupancy levels, business turnover and wider socioeconomic effects).

ACCOMMODATION

Several hotels and bed and breakfasts are located within the area surrounding the Site. Operations and maintenance activities would be likely to increase occupancy in nearby hotels and other short-term accommodation, as well as increasing trade in local hospitality establishments, throughout the operational phase of the Proposed Development. However, given the numbers of employees identified above, this is not likely to result in an overwhelming influx of local accommodation or hospitality bookings at a particular point in time.

LAND USE

During the operational phase, the Proposed Development Site would continue to be used predominantly for agricultural purposes, including sheep grazing. The footprint of the turbines and associated infrastructure is relatively small in comparison to the total site area, typically occupying around 1% of the overall development area⁶⁸. This allows most of the land to remain in its existing use, resulting in minimal disruption to ongoing farming activities. As a result, the operational effects of the Proposed Development on land use are expected to be negligible.

Population and Health Services

CONSTRUCTION PHASE

Due to the relatively short construction period (approximately 24 months), any local demographic changes would be temporary and potentially very limited, assuming some construction work is undertaken by local employees. It is therefore predicted that there would be no discernible effects at regional and national levels.

⁶⁴ Welsh Government (2014) Available at (online): https://www.gov.wales/sites/default/files/publications/2019-06/potential-economic-impact-of-wind-farms-on-welsh-tourism_0.pdf [Accessed June 2026].

⁶⁵ BiGGAR Economics (2021) Available at (online): <https://biggareconomics.co.uk/onshore-wind-and-tourism-in-scotland> [Accessed June 2026].

⁶⁶ Northumbria University (2014) Available at (online): <https://www.northumbria.ac.uk/research/research-impact-at-northumbria/cultural-impact/wind-farms-and-tourism-debate-in-rural-northumberland/> [Accessed June 2026].

⁶⁷ Failte Ireland (2012) Available at (online): [https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/3_Research_Insights/4_Visitor_Insights/WindFarm-VAS-\(FINAL\)-\(2\).pdf](https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/3_Research_Insights/4_Visitor_Insights/WindFarm-VAS-(FINAL)-(2).pdf) [Accessed June 2026].

⁶⁸ ECIU (2022) Available at (online): <https://eciu.net/media/press-releases/2022/wind-farms-would-affect-just-0-02-of-uk-land-3-400-times-less-than-farmed-land> [Accessed June 2026].

The construction of the Proposed Development could result in construction workers coming into the local area surrounding the Site. Population movement (albeit that it would be temporary associated with construction workers arriving during the construction phase of the Proposed Development and of relatively low numbers) could change patterns of need and demand for health services. This could have the potential to affect existing health facilities and services in the area surrounding the Site and more widely for Powys, however there is no indication that any of these are under-resourced or at capacity and numbers of employees in any case will be relatively low. The issue with access to health services in the local area noted in the baseline conditions above is a result of significant distance travelled to services⁶⁹, rather than capacity issues with provision.

There is a risk of accidents during the construction works for the Proposed Development which could be detrimental to human health. Appropriate site working practices during the construction works would help to minimise any risk of accidents during the construction and decommissioning phases. Works would be undertaken in accordance with relevant health and safety legislation. A Construction Method Statement (CMS) would be prepared, which would provide an overview of the construction methods that would be for the Proposed Development. This CMS would be submitted to Powys County Council for approval, prior to construction works starting on Site. Furthermore, access to the Site would be restricted as needed during the construction works and signs would be erected to denote working areas and where it is not safe for non-workers to access.

OPERATIONAL PHASE

In Wales, Health Impact Assessment (HIA) follows a determinants-based framework developed by the Wales Health Impact Assessment Support Unit (WHIASU)⁷⁰ and the Health Impact Assessment (Wales) Regulations 2025, which requires consideration of both positive and negative health effects across environmental, social and economic factors⁷¹. Applying this framework to onshore wind, the main operational hazards associated with the Proposed Development are:

- Noise
- Shadow flicker
- Blade breakage/accidents
- Light pollution

Noise

Wind farm noise assessment is part of an iterative design process, the aim of which is to achieve a design from which noise emissions meet limits derived following the approach given in ETSU-R-97 and/or relevant local guidelines. Where this can be achieved, the design of the scheme is such that necessary operational noise limits are met and no additional mitigation measures are required.

Chapter 11: Noise has assessed the noise effects of the Proposed Development and concluded that there are no significant noise related effects as a result of the Proposed Development. Therefore, there would be no significant noise health effects from the operation of the Proposed Development.

Shadow Flicker

Chapter 13: Shadow Flicker found that there was the potential for significant shadow flicker effects at 3 occupied buildings and non-significant effects at 26 occupied buildings. However, mitigation has been identified via a control system which automatically shuts down the turbines. This will restrict effects to less than 30 minutes a day and/or 30

⁶⁹ Wales Centre for Public Policy (2018) Available at (online): <https://wcpp.org.uk/blog-posts/rural-poverty-the-case-of-powys/> [Accessed June 2026].

⁷⁰ WHIASU (2025) Available at (online): <https://phwwhocc.co.uk/whiasu/> [Accessed June 2026].

⁷¹ Public Health Wales (2025) Available at (online): <https://phw.nhs.wales/knowledge-article/health-impact-assessment-guides-for-practice/> [Accessed June 2026].

hours per year at every property. On this basis, with the mitigation in place, there would be no significant effects from shadow flicker, implying that there would be no adverse health effects from shadow flicker.

Blade Breakage/Accidents

There is a risk to public health/safety of accidents or blade breakage occurring on Site during the operation of the Proposed Development.. Maintenance would be undertaken as needed on the turbine blades to ensure the Proposed Development is operating safely, which would help to reduce the risks of blade breakage occurring. On this basis it is not considered that there would be any operational health effects from blade breakage or accidents.

Light Pollution

Four turbines require aviation warning lights but their design has been developed so as to avoid any significant visual effects at night. Lighting required during the construction phase will be managed via measures outlined in the CEMP and therefore adequate controls are expected to be in place so as to avoid any light pollution from these works.

Climate Change/Production of Renewable Energy

As highlighted in Section 1 above, the Proposed Development would contribute to the alleviation of the adverse consequences of global warming, by providing an alternative and renewable source of energy that does not involve the emission of greenhouse gases during operation, compared with the greenhouse gas emissions associated with electricity produced using fossil fuels. Such beneficial effects cannot readily be ascribed to individuals or groups, nor the scale of the benefit readily considered other than simply in terms of the amount of power generation and total level of emissions avoided. However, the contribution of renewable energy that provides a net supply of power to the electricity distribution system is a health benefit as it would help to reduce greenhouse gas emissions. Whilst this health benefit cannot be readily quantified, it is nevertheless considered to be important.

It is predicted that the carbon emissions associated with the development of the Proposed Development would be offset in approximately 1-2 years (~2.5-5% of the 40-year operational life).

On the basis of potential annual CO₂ savings of approximately 125,583 tonnes per year (based on the Renewable UK savings figure as referenced in Appendix 2A: Carbon Balance Assessment, using an emission factor of 448g CO₂ per kWh and a site-specific load factor of 40%), the Proposed Development could result in a total carbon saving of approximately 5mtonnes over its 40-year operational life, and generate electricity to annually supply the equivalent of approximately 888,849 average homes in the UK.

Overall, the operational phase is not expected to result in significant adverse health effects, with effects either negligible or mitigated through design. The principal long-term effect is considered beneficial due to renewable energy generation.

Decommissioning

There would be further local spend at the stage that the Proposed Development is decommissioned. The precise nature of the decommissioning works is difficult to predict as ultimately the detail would be prescribed by a scheme that would need to be submitted to Powys County Council in accordance with a planning condition; typically, around one year before cessation of the turbine's operation.

However, in terms of the contracting strategy, the decommissioning works on a wind farm can be treated differently to the construction works, as they would be phased over a period of time which lends itself to the engagement of a different supply chain that would not necessarily require such specialist skills and experience since it is likely that tracks and ground infrastructure (below 1m) would remain in situ.

Once the wind turbines are dismantled by specialists, the subsequent decommissioning and dismantling of wind farm infrastructure for removal is likely to be undertaken by smaller contractors.

The cost of decommissioning a wind farm in over 40 years' time is difficult to estimate at this stage. However, wind farm decommissioning bonds are available which are designed to provide financial security to local authorities and/or landowners for the decommissioning and reclamation of a wind farm development, should the operator cease trading.

These are based on estimated costs for site restoration (leaving tracks in situ) and have been applied at a value in the order of £15,000 per MW for comparable wind farms. This would amount to a decommissioning cost of £1.12-1.19m for the 74.8-79.2 MW Proposed Development.

The health effects from decommissioning of the Proposed Development are predicted to be the same or less than its construction effects. Therefore, the decommissioning effects are not assessed here any further.

CUMULATIVE EFFECTS

Consideration has been given as to whether any of the socio-economic receptors that have been taken forward for assessment in this chapter are likely to be subject to cumulative socio-economic effects in combination with other developments. Other developments in Powys that have been considered for any cumulative effects have been identified in **Chapter 2: Approach to EIA** of the ES.

Economy and Employment

There are several wind farms in close proximity to the Site and it is considered that all phases of these schemes are considered to have the potential to give rise to cumulative socio-economic effects. Within a 10km radius there are nine operational wind farms. There are four consented wind farms which are listed below:

- Llanbrynmair
- Carno III
- Llandinam Repowering
- Garn Fach

There are three application wind farms:

- Esgair Cwmowen
- Banc Du Energy Park
- Rhiwlas Energy Park

As well as four scoping wind farms:

- Llyn Lort
- Mynydd Lluest y Graig
- Llanbrynmair (redesign)
- Carnedd Wen

Considering the Proposed Development together with existing wind farms nearby, this is likely to generate a beneficial effect for the local economy as a result of local employment and local expenditure throughout all phases of wind farm developments. There is the potential for significant effects on the local economy when considered specifically in combination with other existing or wind farms within the planning system, however the cumulative impact at a national (Wales) level would not result in a likely significant economic effect.

Population

No cumulative effects on population are predicted which require any further assessment.

Health

No cumulative effects on health are predicted which require any further assessment.

8. FURTHER MATTERS

Community Benefit Fund

The Applicant has pledged to provide local community funding which would be delivered during the operational phase of the Proposed Development. The Applicant are committed to ensuring that local communities benefit from the energy park and will be providing a dedicated community benefit fund of at least £5,000 per megawatt of installed wind turbine capacity per annum. On the basis of an installed capacity of 80MW, this would correspond to a fund value of at least £400,000 per annum, or £16m over the 40-year project lifetime, which could be put towards the priorities of the local communities.

9. CONCLUSION

This report has assessed the potential socio-economic effects of the Proposed Development on the surrounding area, including the Caersws and Rhiwcynon wards, as well as the wider areas of Powys and Wales. The assessment confirms that no significant adverse socio-economic effects are anticipated, consistent with the findings to scope out the topic from the ES.

After a review of the baseline data, potential effects and associated mitigation measures, the effects arising from the Proposed Development would be limited in scale and primarily experienced at the local and regional level. These effects would mainly relate to economic activity and impacts on local communities and visitors, with no significant adverse impacts identified. The Proposed Development would deliver wider socio-economic benefits through its contribution to renewable energy generation, supporting efforts to address climate change at both the regional and national level.