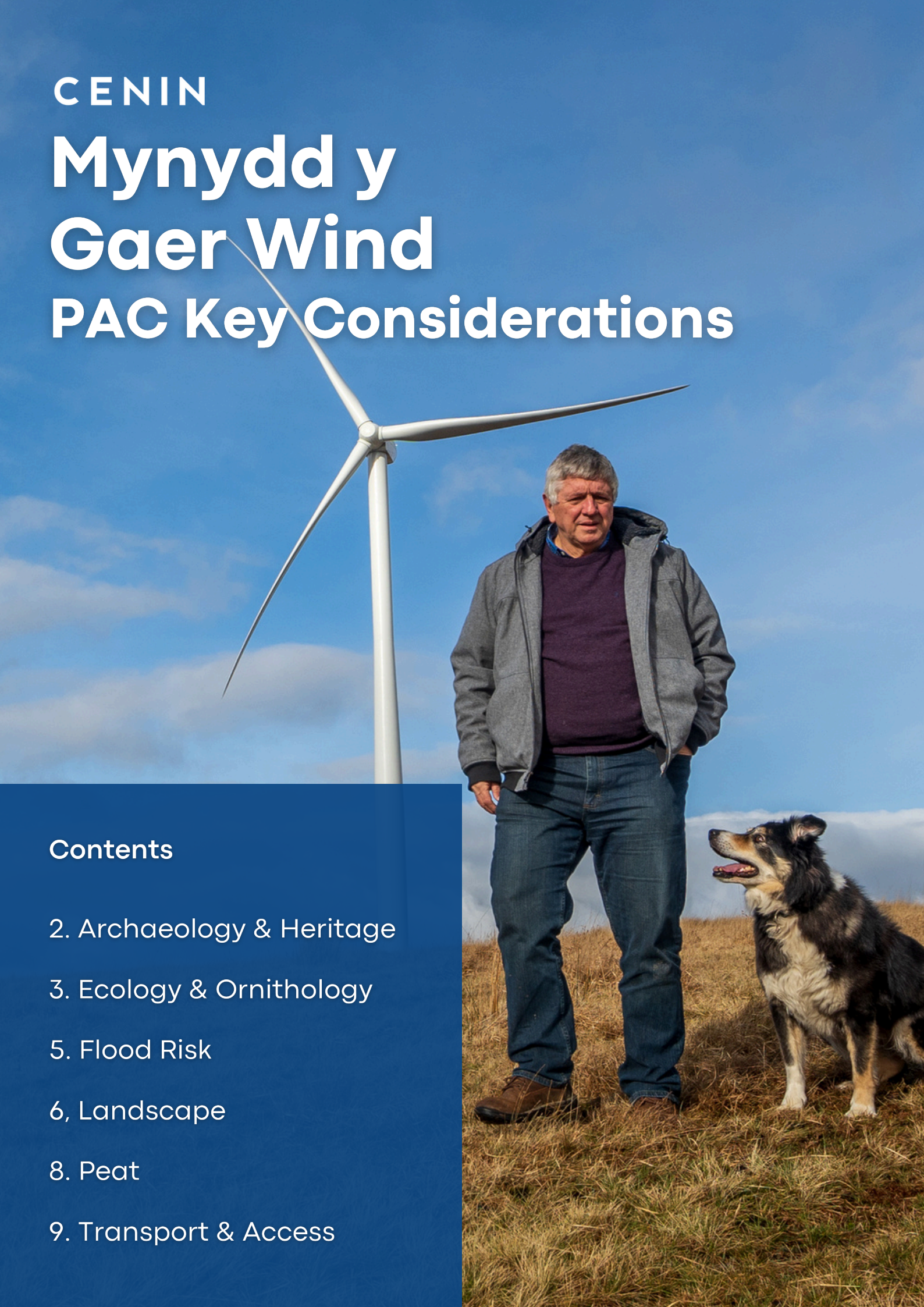
CENIN

Mynydd y Gaer Wind

PAC Key Considerations



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Archaeology & Heritage

There are multiple receptors identified within and around the proposed development area that could be affected by development. These comprise a range of archaeological sites, features and areas from a wide time range.
The two main identified impacts comprise destructive ground-breaking activity during the construction phase of the proposed development, and impacts to the setting of high value receptors during the construction and operational phases of development.

The receptors range in both sensitivity and in the potential magnitude of the impacts, however a potentially significant effect has been identified on three clusters of identified receptors that appear to relate to post-medieval deserted rural settlement sites, and the general archaeological potential of the area, largely through potentially destructive construction works.

A potentially significant effect has also been identified on the setting of scheduled monument GM084 Mynydd y Gaer hillfort, during disruptive construction works and through visual changes during the operational phase.

Current mitigation includes further archaeological surveys and investigations to improve the current understanding of, and potential impacts upon, all identified receptors. It is anticipated that this can then be used to reduce the significance of the effect on these receptors.

Ecology & Ornothology

Several statutory designated sites were located within a 2 km search of the Proposed Development footprint. The closest international site is Blackmill Woodlands SAC, located more than 400m to the west. The closest nationally designated site is Brynna a Wern Tarw SSSI which was located 70m from the Proposed Development's haul road. Wern Tarw Woodland which is a Plantation on Ancient Woodland Soils (PAWS) is located within the Application Boundary.

Habitats recorded primarily include acid grassland, bracken, improved/agricultural grassland and wetland habitats. Bristle bent (an uncommon plant) was identified within acid grassland habitats in proximity to turbine locations. A minimum of five bat species were recorded commuting and foraging across the site (common pipistrelle, soprano pipistrelle, noctule, brown long-eared and lesser horseshoe). The most abundant species identified was common pipistrelle, a widespread species of bat in the UK. Dormice were recorded within Wern Tarw Woodland, in the south east of the Application Boundary. A diverse assemblage of notable grassland fungi species was recorded across the Application Boundary, with many species previously recorded in acid grassland habitats in the north east of the Application Boundary.

The above ecological receptors could be impacted by the Proposed Development as a result of habitat loss, disturbance/displacement and mortality. Measures have been adopted as part of the Proposed Development to avoid, minimise and mitigate potentially significant impacts on Terrestrial Ecology. These include best practice environmental measures during construction and operation, and a sensitive approach to storing and reinstating soil. A biodiversity strategy which includes the necessary habitat creation, restoration and enhancement measures has been prepared. Protected and notable species protection measures would also be factored into the Proposed Development.

Wet heath habitats in unfavourable conditions on the Mynydd y Gaer common would be restored, along with acid grassland communities as part of targeted bracken control across the landscape. The control measures would also include reducing the cover of invasive non-native species, specifically on Mynydd y Gaer common. Woodland conservation management is also proposed within Wern Tarw Woodland to ensure its former ancient woodland characteristics are restored in the long-term, this includes improving structural diversity and controlling invasive non-native species. The restoration of wet heath, acid grassland and broadleaved woodland aims to restore the resiliency of the ecosystems to allow their proper functioning within the area, including reconnecting and expanding green infrastructure.

The Proposed Development would also enable the enhancement of existing green infrastructure within the Replacement Land, though the exact area has not been confirmed. This would include enhancing hedgerows, controlling invasive non-native species, enhancing grassland to open up mosaics and creating wooded features to expand the wooded corridor between Pant Hirwaun and Blackmill. The green infrastructure proposals would benefit both biodiversity and the local community.

Taking into account the mitigation and the proposed biodiversity measures during construction and operation, no significant adverse effects are likely to occur with respect to Terrestrial Ecology and an overall net benefit for biodiversity would be delivered. Several ecological receptors would experience beneficial effects in the long term, these include Wern Tarw Woodland, wet heath habitat, dormice and grassland fungi.

For ornithology, over two years of field data and desktop research have been compiled for the site regarding ornithology receptors. The site itself does not impinge on any designated sites and is also not functionally linked to any sites with key ornithological receptors. The area is used by a handful of species of conservation concern. Birds are typically impacted by onshore wind developments through construction, loss of habitat, displacement, collision and latterly decommissioning. All these factors have been considered in the reporting utilising industry standard modelling to support the assessment process. Impacts are not expected to negatively affect regional population levels of any species.

Red kite, herring gull, golden plover and goshawk are four species which show the highest impacts. Data shows that goshawk breeds off site, but red kite do use the area, notably the west end of the site, during the post breeding period. Loitering birds in this area have driven the numbers to a relatively high level in collision risk modelling. Similarly, numbers are high for herring gull in this area. Skylark have been noted to breed within the current site boundary.

Best practice in construction and monitoring, including an ecological clerk of work on site, will take place for base level mitigation.

Flood Risk

The New Flood Map for Planning data has been used as the 'best available information' on flood risk to inform the planning application. As indicated by the Flood Map for Planning, the site falls within Flood Zone 1, which is classified 'as areas with a less than 0.1% (1 in 1000) chance of flooding from rivers each year, including the effects of climate change.'

The Natural Resource Wales (NRW) Flood Risk from Surface Water and Small Watercourses map indicates most of the site is not at risk of surface water flooding. Areas of 'low' to 'high' risk have been identified within the extent of the site boundary. This is attributed to ordinary watercourses at the site and depressions in the ground surface.

A Flood Consequences Assessment (FCA) and drainage strategy has been produced in support of the application to ensure flood risk and hydrological impacts are managed appropriately.

Landscape

The Application Site falls mostly within the Special Landscape Area (SLA) Mynydd y Gaer.

The nearest National Park to the Site is the Brecon Beacons National Park, which lies approximately 19.5km to the north at its nearest point. The northern edge of Exmoor National Park lies some 36km to the south from the nearest proposed wind turbine. There would be very little to no intervisibility between the proposal and these national parks. The closest National Landscape (formerly known as an Area of Outstanding Natural Beauty) is the Gower which is 30.5km to the west. There is almost no potential intervisibility with the proposed development and this national designation.

There are SLAs within 10km of the Application Site which would potentially have intervisibility with the proposed development. The closest is Mynydd Hugh and Llantrisant Forest SLA which lies immediately to the east and adjoins Mynydd y Gaer SLA. The Northern Uplands SLA lies 2.32 km to the north at its closest point. The Western Uplands lies some 5.5km to the west and this SLA adjoins Margam SLA which falls partly within the 10km buffer. Laleston SLA lies 5.98km to the south west and Llanharry Surrounds SLA lies 3.06km to the south east with the Upper and lower Thaw Valley SLA lying beyond this and to the south of the M4 motorway at 4.87km. The effects on these SLAs are discussed as part of the landscape assessment in Appendix 5B.

The proposed development is located on the elevate plateau / broad ridge of Mynydd y Gaer classified as Hillside & Scarp Slopes Mosaic landscape in CLS3 of the Visual and Sensory Aspect Area (VSAA) Mynydd y Gaer CYNONVS436. The proposed development lies with Bridgend County Borough Council (BCBC) Landscape Character Area 9 (LCA) Hirwaun Common and Surrounding Ridges. Mynydd y Gaer lies between the lowland coastal landscape to the south and the steep sided valley and ridge upland landscape to the north.
A series of 32 representative viewpoints were identified within the study area. These visual receptors are to be found within 40km of the Proposed Development and within the turbine tip height ZTV which is shown in the planning application. 25 of these representative viewpoints are within the 15km buffer of the proposed development. The effects on these views are discussed as part of the landscape assessment in Appendix 5C.

All bar one of the proposed turbines are within Pre assessed area (PAA) 9 – Future Wales Plan Policies 17 & 18. The latter is 81km from the western edge of PAA 9. There is a presumption in favour of windfarm development within PAAs.

This landscape is essentially a working landscape – upland sheep grazing comprised of common land and fields. There is some plantation forestry and existing densely spaced windfarms of Taff Ely and Mynydd Portref immediately adjoining the Application Site. The are suffers from erosion caused by motor vehicle access. Sheep grazing would still continue and the land would be managed to also benefit existing habitat enhancement as well as retaining open access and PRoW.

Future Wales Plan Policy 18 states that proposals for renewable energy projects will be permitted subject to there being 'no unacceptable adverse visual impacts on nearby communities and individual dwellings'. This assessment concludes that although there are some significant adverse visual effects on local residential areas these are within 2km of the proposed development. None of the effects are so unacceptable so as to reach RVAT – where it would potentially affect 'living conditions'

Future Wales Plan Policy 18 also states that, 'the cumulative impacts of existing and consented renewable energy schemes should also be considered.' Scenario 2 of the cumulative landscape and visual assessment (CLVIA) in this chapter has assessed this series of windfarm developments i.e. proposed scheme + operational + consented schemes. The majority of the cumulative schemes in the study area is made up of wind farms that are already in operation, which forms part of the baseline assessment in Scenario 1, in the landscape and visual assessment. As more windfarms become present in the landscape, in some cases these will have the greater contributing influence to the level of effect. In Scenario 1, 12 LCAs / VSAAs are predicted to experience significant effects. In Scenario 2, with the addition of the consented schemes, 7 of these 12 areas are predicted to have additional cumulative effects which result in the combined cumulative schemes having an equal (type 1 cumulative effect) or greater contributing effect (type 3 cumulative effect) to the overall level of significance rather than the proposed scheme.

Peat

The majority of the land within the application boundary is characterised by soils from the Gelligaer Association, which comprises loamy soils overlain by a thin peaty topsoil of approximately 0-200mm thickness. Limited areas to the south east of the site overlay glacial till and comprise more poorly drained soils of the Wilcocks soil association, where soil profiles comprising thicknesses of peat comprising in excess of 30cm may be located.

Two peat probing surveys have been conducted on the site. The first, in September 2022, has been used to inform the design of the proposal, alongside other environmental considerations. A second survey, based on the proposed layout of the Project, was undertaken in November 2024. Both surveys show, as expected, that the majority of the site comprises soil profiles with between 0-200mm thickness of peat with thicknesses of between 500-600mm identified on the fringe of the area of one turbine.

A soil management plan will be produced as part of the Environmental Statement to identify appropriate measures to strip, store and restore soils affected by the Project. This will include specific measures relevant to the conservation of peat resources, where they occur within the Project.

Transport & Access

Construction access for the project will be via the A473 at Pencoed, continuing onto the B4280 and Bryngarn Road. The construction phase is anticipated to last approximately 24 months. During peak activity, heavy goods vehicle (HGV) movements are expected to reach approximately 64 movements per day (32 inbound and 32 outbound).

It is recognised that there are sensitive receptors in proximity to the site boundary. However, based on the projected construction traffic flows, and the mitigation provided, these levels are considered low enough to avoid any significant environmental effects.

Once operational, the wind farm will be managed remotely and will require only occasional site visits for maintenance, as needed. The associated vehicle movements will have a negligible impact on the surrounding highway network.

The planning application will include a Construction Traffic Management Plan (CTMP). This document will provide detailed information on expected construction vehicle movements and vehicle types, journey considerations for construction and maintenance staff, proposed access junction arrangements, the suitability and details of the proposed haulage route, information on the traffic management measures to be implemented, and will detail the construction working hours and duration of works.