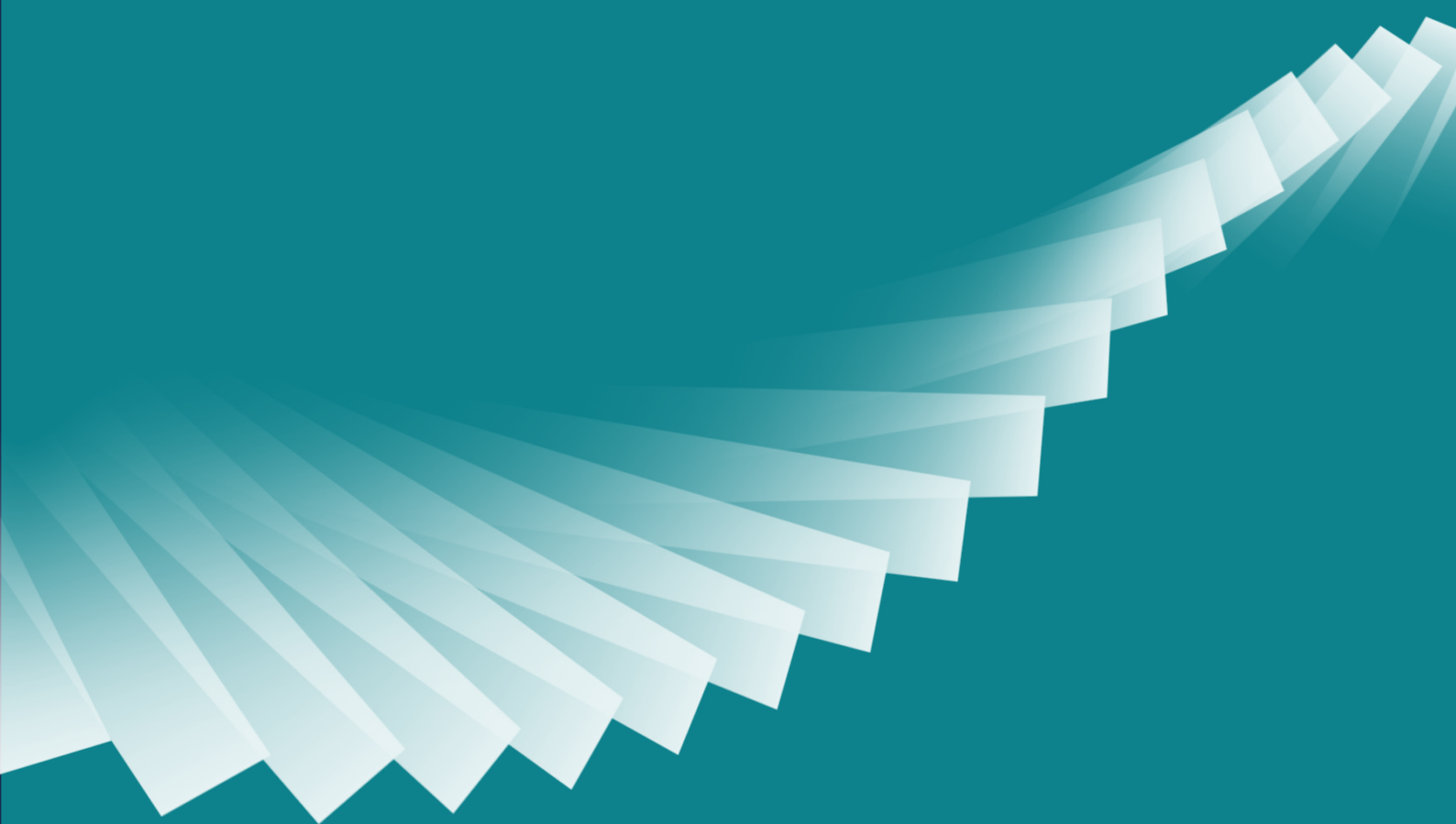




Bute Energy
Aberedw Energy Park

Non-Technical Summary



Non-Technical Summary

Introduction

1.1 Aberedw Energy Park Ltd (the Applicant) is seeking planning permission to construct and operate a wind farm known as Aberedw Energy Park (hereafter referred to as the Proposed Development). The Proposed Development is a 'Development of National Significance' (DNS) as it is an onshore wind farm with an installed generating capacity greater than 10 MW. As a DNS, consent will be required from the Welsh Ministers (via Planning and Environment Decisions Wales (PEDW)).

1.2 The Site of the Proposed Development is located approximately three kilometres (km) east of Builth Wells, within the local planning authority area of Powys County Council (PCC) as shown on **Figure 1: Site Location**. The layout of the Proposed Development is shown in **Figure 2: Site Layout**.

1.3 The Proposed Development is categorised as 'EIA development', as it could potentially result in 'significant' environmental effects under the Town and Country Planning (Environmental Impact Assessment) (Wales) 2017 Regulations (the EIA Regulations). The application for planning permission is accompanied by an Environmental Statement (ES), which presents the findings of the EIA.

1.4 This Non-Technical Summary (NTS) is a standalone document and has been prepared in accordance with the EIA Regulations to provide a clear and easy to understand overview of the Proposed Development and key findings presented within the ES. The EIA has been undertaken by LUC and specialist consultants, all considered to be competent experts in accordance with the EIA Regulations.

The Applicant

1.5 The Proposed Development is being developed by Aberedw Energy Park Ltd, a subsidiary of Bute Energy Ltd. Bute Energy is a developer of onshore wind using the latest technology to deliver low-cost renewable energy.

Environmental Impact Assessment

1.6 EIA involves the compilation, evaluation and presentation of any potentially significant environmental effects resulting from a development, to assist the consenting authority, statutory consultees, and wider public in considering an application. Early identification of potentially adverse (negative) environmental effects also leads to the identification and incorporation of appropriate mitigation measures into the scheme design to avoid, reduce and, if possible, remedy potentially significant adverse environmental effects. The residual effect, i.e. following the identification of appropriate mitigation, is then reported in the ES.

1.7 The ES presents information on the identification and assessment of the likely significant environmental effects of the Proposed Development. The significance of these effects (either positive or negative) has been assessed using criteria defined in the individual topic chapters of the ES. Where appropriate, the significance of effects has been categorised as major, moderate, minor or negligible. In the context of the EIA Regulations, effects assessed as being of '**Major**' or '**Moderate**' significance are considered to be **significant** effects.

1.8 A Scoping Direction outlines the range of issues which PEDW, the local authority and other technical consultees (such as Natural Resources Wales and Cadw) consider should be contained within the EIA. A Scoping Direction for the Proposed Development was requested by the Applicant through submission of a Scoping Report and provided by the Welsh Ministers on 8th December 2023 for a development of up to 18 turbines. The EIA and wider pre-application process, including the Scoping process and subsequent informal consultations, led to a reduction in the scale of the Proposed Development, leading to the design that is the subject of the DNS application.

Overview of the Site and the Proposed Development

The Site

1.9 The Site covers an area of approximately 1,323 hectares (ha) and consists largely of undulating upland, which comprises moor common land, with small areas of scrub woodland within the lower elevations of the Site and a small number of access tracks. Areas of ancient woodland are located within and around the Site. The River Wye Valley is located to the west of the Site. The Site is located between the A481 (to the north of the Site) and the B4567 (to the west of the Site, adjacent to the River Wye).

The Proposed Development

1.10 The main components of the Proposed Development will comprises:

- Up to 18 wind turbines each with a three-blade rotor;
- Crane hardstandings and adjacent laydown areas for each wind turbine location;
- 13.35 km of access tracks (of which 11.66 km will be new track and 1.69 km will be upgraded existing track) including turning heads, passing places and associated ancillary engineering works;
- An electrical substation compound, consisting of a switching station, transformer area control/SCADA facilities and welfare/storage facilities, and an operations building;
- Onsite underground electrical cables connecting the wind turbines to the substation. These are mostly laid in cable trenches alongside existing access tracks but divert off the access tracks towards the substation;
- New site access road off the C1336 (from the A481 near Bevan House, Hundred House, Llandrindod Wells) and an additional entrance off the A481 to facilitate substation access and Abnormal Indivisible Loads (AIL) delivery;
- Watercourse crossings;
- Site signage; and
- Biodiversity enhancement proposals / Habitat Management Areas.

1.11 In addition to the above components of the operational Proposed Development, construction of the Proposed Development will also require the following temporary components:

- Two temporary construction and storage compounds (including a security cabin);
- The creation of up to two borrow pits for the extraction of stone (subject to detailed site investigation) which will be restored at the end of the construction phase of the Proposed Development; and
- The temporary diversion or temporary closure of a number of Public Rights of Way (PRoW) that cross through the Site.

1.12 The wind turbines will have a maximum blade tip height of 200 m. The indicative output capacity of the Proposed Development at this stage is approximately 120 MW. However, this capacity may vary subject to the final turbine model chosen¹. The locations of the wind turbines are set out in **Table 1** below.

1.13 As well as contributing to the generation of low carbon electricity and the resulting avoidance of carbon emissions, the Proposed Development provides the opportunity for local communities to benefit financially from its operation through regular annual payments of £7,500 per MW of installed wind capacity per year (community benefit fund).

1.14 The operational life of the Proposed Development is 40 years. 15 months are required for construction. If planning permission is granted, it is anticipated that construction of the Proposed Development will commence in 2028-2029. Following the 40-year operational period, the Proposed Development will be decommissioned, or an application could be made to extend the operational life. Decommissioning will involve the dismantling and removal of the turbines and electrical equipment, and the restoration of turbine hardstandings and substation.

1.15 Decommissioning is scoped out of the assessments on the basis that the effects of decommissioning are predicted to be similar to and/or of lower magnitude than construction and operational effects.

¹ The turbine to be used will be subject to a tendering process if the application receives consent. This means that output capacity could change from that currently envisaged based on current market options, however the turbine selected would need to fall within the parameters for which consent is granted and as assessed in this ES.

Table 1.1 Table 1 - Proposed turbine locations

Wind Turbine Number	Easting	Northing
1	308846	250156
2	308501	250450
3	308220	250783
4	308814	251167
5	308325	251350
6	308491	251930
7	310120	250040
8	310411	250677
9	310159	251095
10	310100	251608
11	309624	251861
12	309120	252122
13	309749	252329
14	310439	252304
15	310791	252015
16	311040	252796
17	311417	252520
18	311496	251990

Site Characteristics and Design Strategy

Site Characteristics

1.16 Key characteristics of the Site that make it suitable for an energy park include the following:

- The Site has an excellent wind resource.
- There are no significant environmental constraints or impacts.
- The Site is available for wind energy development (there are land agreements in place and there are no other conflicting land uses on the Site).
- There are no planning policies which, in principle, prevent wind energy development at the Site.
- The Site has suitable ground conditions for turbine foundations, access tracks and other infrastructure.
- The Site is accessible for construction traffic and turbine deliveries.
- A grid connection has been agreed which will enable the electricity generated to be exported.

Design Strategy

1.17 The design strategy for the Proposed Development has aimed to provide the balance between minimising effects on the local and wider environment and optimising energy yield. It has sought to create a layout that relates sympathetically to the landform and scale of the Site and surrounding area, and that is well-composed from key views.

1.18 Energy yield is an important consideration for wind farm design in environmental terms, because the chief environmental benefit of the Proposed Development – mitigation of climate change via low carbon, renewable energy generation – can only be maximised by optimising the energy generation potential of the Site while taking all other design considerations into account. Where a site is generally suitable for development, it is therefore important to avoid, to the extent equal with other constraints and effects, the ‘opportunity cost’ of failing to deliver the site’s fullest renewable energy generation potential.

1.19 Planning Policy Wales (PPW) Edition 12 (2024)² makes detailed reference to the step-wise approach as the means of demonstrating the steps which have been taken towards securing a net benefit for biodiversity. This includes addressing all the attributes identified under the diversity, extent, condition and connectivity and adaptability (DECCA) framework. Whilst PPW12 came into effect after the Site had been selected, the design process has followed the mitigation hierarchy approach and therefore it is considered that the approach to the site selection and design of the Proposed Development has aligned with and adopted the steps in the step-wise approach.

1.20 Further information on how the design of the Proposed Development has complied with the step-wise approach as advocated in PPW12 is provided in the **Green Infrastructure Statement** submitted with the DNS application.

1.21 While balancing the need to optimise the energy generation potential of the Site, the final design objectives included, but were not limited to, the following:

- To use the latest wind turbine technology, consisting of more efficient and larger turbines whilst demonstrating the Proposed Development will not result in unacceptable adverse impacts, as described in Policy 18 of Future Wales: the National Plan to 2040.
- To ensure that turbines respond to the scale of the underlying landscape and operational, consented and proposed turbines in the surrounding context.
- To develop a turbine layout that minimises adverse effects upon historic assets and their settings, including scheduled monuments, listed buildings and non-designated but locally important historic assets.
- To develop a turbine layout that avoids isolated outlying turbines and minimises stacking (as far as onsite constraints allow) and achieves a well-composed design overall.
- To explore and identify an aviation lighting scheme, which both satisfies the requirements of aviation policy and minimises the visual effects of such lighting as far as possible.
- Limiting noise at nearby properties to acceptable levels in accordance with established guidance.

² Welsh Government (2024) Planning Policy Wales (Edition 12)

- Minimising interactions with ecologically sensitive habitats to the greatest feasible extent: in particular, 'Section 7' habitats and wetlands identified as being directly dependent on groundwater bodies (called Groundwater Dependent Terrestrial Ecosystems).
- Protecting the Site's hydrological regime, and the Site's surroundings, with particular focus on the site setting, within the catchment of the River Wye/Afon Gwy Special Area of Conservation (SAC – an area protected by law for the habitats and/or species it supports).
- Taking account for the potential for effects on all bird species of conservation concern at and around the Site.
- Taking account of the potential for effects upon bats.
- Taking account of historic assets and their settings, including Scheduled Monuments, listed buildings and non-designated but locally important historic assets.
- To make use of existing access tracks as far as possible, minimising the necessity for new excavations.
- To keep overall new track length to a minimum, reducing stone requirements and associated potential environmental effects.
- To build health and safety aspects into track design from as early a stage as possible, including avoiding slopes that are too steep for turbine deliveries, access and creating clear definitions between turbine working areas and access tracks.
- Avoiding fixed telecoms links where possible.
- To explore opportunities within and in the vicinity of the Site to restore and enhance biodiversity, ultimately securing net benefits for biodiversity.
- Limiting infrastructure on common land and minimising land take overall as far as possible across the Site.
- Minimising effects on the existing access and recreation opportunities provided by the PRoWs and Unsurfaced Unclassified County Road (UUCR) within the Site.
- Exploring opportunities within the Site to provide greater access and recreational opportunities.

- To develop a layout that fulfils the above objectives whilst minimising or avoiding other environmental, social and technical constraints as far as possible.

1.22 The final design for the Proposed Development is shown in **Figure 2: Site Layout**. The inherent nature of wind turbines as tall, modern structures means that the form of the Proposed Development as a whole is important, and a clear design strategy is necessary. The overall aim of the design strategy was to create an energy park with a cohesive design that is sympathetic in form and scale to the surrounding landscape context, whilst achieving an appropriate balance between maximising renewable energy yield and minimising other environmental and technical effects.

1.23 The design of the Proposed Development has evolved over multiple iterations to achieve the best feasible balance of maximising renewable and low carbon energy generation benefits and other environmental effects. It is considered that the final design presents the optimum design scenario in this respect.

Landscape and Visual Amenity

Introduction

1.24 A landscape and visual impact assessment (LVIA) has been carried out to identify the significant landscape and visual effects that are likely to arise as a result of the Proposed Development. The LVIA has considered the effects on landscape and visual receptors during the long-term operational stage, as well as the cumulative effect of the Proposed Development in conjunction with other proposed and approved developments within the study area. The effects of turbine lights (aviation lighting) have also been assessed. A residential visual amenity assessment (RVAA) has been carried out to assess the visual effects of the Proposed Development on individual residential properties, including consideration of whether the residential visual amenity threshold would be breached at any property.

How have potential effects on landscape and visual amenity been considered?

1.25 The assessment has considered a study area extending to 28 km from the outermost turbines of the Proposed Development (and a 33 km radius within the Bannau Brycheiniog National Park (BBNP)). It has involved a desk study, field surveys and computer modelling to analyse the landscape of the study area and to understand where the Proposed Development will be visible from. Landscape and visual receptors have been identified, and their sensitivity has been recorded as part of a baseline assessment. The sensitivity of receptors and the potential effects of the Proposed Development have informed the layout and design of the Proposed Development as part of an iterative design/assessment process. The residual effects of the final Proposed Development have been assessed in accordance with current guidelines. The assessment of significance has been undertaken with reference to the sensitivity of the receptor and magnitude of effect, and the assessment has been carried out by Chartered Landscape Architects.

What are the landscape and visual amenity characteristics of the Site?

1.26 The study area is characterised by areas of upland moorland hills dissected by steep sided valleys with settlements typically confined to the lower valleys and their location influenced by the A470 and A483 which cross through the study area. The Site is located on an

area of exposed upland plateau within part of the Radnorshire Hills, with several river valleys incising the rolling uplands which surround it, including the River Wye and River Edw. The Site consists of common land and contains the broad hill of Aberedw Hill and the outlying summits of Wylfre and Llan-fraith Hill. The BBNP (and International Dark Sky Reserve) is located just over 14km to the south.

Can these effects be mitigated?

1.27 The layout of the Proposed Development has been developed as part of an iterative assessment and design process, as described under the Site Characteristics and Design Strategy section above. Through this process, mitigation has been designed-in to the final layout of turbines and other site infrastructure.

After mitigation, what effects will remain?

1.28 The assessment has found that there would be unavoidable major (significant) landscape effects on the character of the landscape units directly affected by the Proposed Development (Aberedw Uplands - Powys Landscape Character Area 50) and Llanbister-Penybont Uplands - Powys Landscape Character Area 40). There will also be a major (significant) landscape effect on the perceptual character of landscape units within 1.5 km of the proposed turbines, including the Aberedw Valley - Powys Landscape Character Area 54) and the Wye Valley (Builth Wells to Hay-on-Wye) - Powys Landscape Character Area 55). There will be lesser moderate (albeit still significant) effect on the perceptual character of these landscape units between 1.5 and 5 km from the proposed turbines, as well as on the perceptual character of Northern Mynydd Epynt - Powys Landscape Character Area 56 and Mynydd Epynt - Powys Landscape Character Area 57.

1.29 There will be significant visual effects from some of the local communities within 5 km of the proposed turbines. Major effects are predicted on views from the central part of Hundred House and its minor road in the north and from the southern edge of Llansantffraed-in-Elwel. There will also be lesser (although still significant) effects from the eastern and western parts of Hundred House, an elevated junction within Franksbridge, from areas within Builth Wells and from the front of The Llanelwedd Arms Hotel in the south of Llanelwedd.

1.30 Significant visual effects will be experienced by motorists travelling along short stretches of road that surround the Site including along the A481, A470, A483, B4567 and B4520.

1.31 Significant visual effects will also be experienced by recreational users using the open access land and PRow network within the Site, and open access land (and PRowS) that surround the Site in close proximity, including:

- From the summits and south-facing slopes of Perthi Common, Carneddau and Gilwern Hill;
- From the summits and north/ north-west facing slopes of Red Hill, Rhulen Hill, Llanbedr Hill and Llandeilo Hill;
- From the summits and west/ south-west facing slopes of Little Hill, Cefn Wylfre and Glascwm Hill; and
- From the summit of Garth Hill.

1.32 Lesser (albeit still significant) effects will also affect:

- Recreational users of the open access land at the summits and upper west-facing slopes of Gwaunceste Hill and Little Hill;
- Users along the stretches of the National Cycle Network Route 825 that cross Hundred House Common (when looking south), and run between Cregrina and Hundred House, between the properties at Busnant and Rhos (east of Cregrina) and between Bwlch-Ilwyn and Franksbridge;
- Users along the stretches of the National Cycle Network Route 8 that cross the Wye Bridge and run between Cmon Coch and Builth Wells;
- Users of the Wye Valley Walk where it traverses the summit and east-facing slopes of Banc y Celyn, and users of other PRowS that extend from the Wye Valley Walk and traverse the lower slopes of the River Wye Valley to the south-west of the Site (where intervening vegetation does not screen/ filter views); and
- Users of the Heart of Wales Line Trail where it travels along the Wye Bridge (A483).

1.33 Significant visual effects will be experienced by visitors to Builth Castle and the Royal Welsh Showground.

1.34 Significant visual effects will be also experienced by people staying at the Fforest Fields, Mid Wales Caravan & Camping Site, and at the Bryncrach Caravan and Camping Site.

1.35 Several residential properties will experience a high magnitude of change. At Upper Blaenmilo (a financially involved property), it is likely that the Proposed Development could breach the residential visual amenity threshold. The threshold will not be breached at any of the other properties.

1.36 A significant visual effect has been judged to occur at dusk/night from Perthi Common when the turbine aviation lights are operating in their brightest mode. Based on meteorological data the lights are expected to operate in this mode just 12% of the time (when visibility is below 5 km). The assessment of combined cumulative effects considers the effect on landscape and visual receptors if all potential future developments within the 28/33km study area (consented and proposed: Garn Fach, Llandinam Repowering, Nant Mithil and Bryngydfa), including the Proposed Development, are implemented when compared to the existing baseline (operational and under construction: Tremaen, Penllanerch, Upper Pengarth, Hendy, Ty Gwyn Farm, Cefncynfal, Garreg Lwyd Hill, Bryn Titli and Llandinam). It was concluded that the combined effects arising from all of the developments will be no greater than the sum of their individual effects as set out in the LVIA for each individual scheme.

Archaeology and Cultural Heritage

Introduction

1.37 A historic environment assessment has been undertaken with the aim to identify potential significant effects deriving from the Proposed Development on the historic environment. The results of it are provided in Chapter 6 of the ES. The historic environment is defined as comprising all the surviving physical elements of previous human activity. It is made up of individual historic features collectively known as historic assets.

How have potential effects on the historic environment been considered?

1.38 The desktop assessment has been undertaken with reference to relevant legislation, policy and guidance on historic environment. Data and evidence for historic assets have been compiled from sources including Cadw and Heneb: Clwyd-Powys Archaeology (HCPA) records, aerial photographs, historic maps and LiDAR data, and it was also informed by field surveys. The resulting dataset has been considered and assessed for direct effects from the construction of the Proposed Development within the Site, effects from changes to setting during the operation of the energy park and cumulative effects from other wind farms in the surrounding landscape on assets up to 10 km away.

What historic assets are there on the Site?

1.39 Four designated historic assets and 360 non-designated historic assets have been identified within the Site. The potential for the presence of previously unrecorded historic assets, including buried archaeological remains has been assessed to be low. Historic assets forming the historic environment baseline are primarily characterised by evidence of prehistoric activity from the Bronze Age period, including funerary and ritual monuments, and post Roman domestic and agricultural activity, including settlement remains.

1.40 186 designated historic assets have been identified within the Core Study Area, along with 3094 historic assets have been identified from data held by the HCPA data. The Wider Study Area contains 253 designated assets.

What potential effects on the historic environment were identified?

1.41 Direct physical effects on 42 non-designated historic assets, including micrositings. After mitigation, these direct physical effects are not predicted to be significant.

1.42 Nine historic assets are predicted to experience direct effects resulting from setting change as a result of the operation of the Proposed Development. These changes have the potential to affect the way elements of their setting contribute to how they are appreciated and experienced.

1.43 Potential significant effects resulting from setting change have been identified for two designated historic assets of high importance Aberedw Hill Round Barrows (Cadw Ref. RD074) and Cwmblaenerw Enclosed Long Hut (Cadw Ref. RD169). The presence of the Proposed Development during operation may affect the way the settings of a further 7 designated historic assets and 1 non-designated asset are experienced. These changes will not result in a significant effect.

1.44 No cumulative effects for the historic environment have been identified.

Can these effects be mitigated?

1.45 Embedded mitigation measures, such as micrositing allowance reduction, have been proposed together with an outline Construction Environmental Management Plan (CEMP) which sets out best practice measures to reduce harm to the historic environment during construction.

1.46 Due to the significant presence of below-ground historic assets preserved within the Site, archaeological investigations in the form of monitoring and recording are likely to be required, with the aim of preserving archaeological remains that may be physically impacted during the construction phase.

After mitigation, what effects will remain?

1.47 After mitigation, two significant effects for the purposes of EIA have been assessed for the historic environment.

1.48 Changes to the setting of Aberedw Hill Round Barrows (Cadw Ref. RD074) will affect how this historic asset is appreciated and experienced. This change could lead to a major potential level of effect (significant).

1.49 Changes to the setting of Cwmblaenerw Enclosed Long Hut (Cadw Ref. RD169) will affect how this historic asset is appreciated and experienced. This change could lead to a **moderate** potential level of effect (significant).

Ecology (not birds)

Introduction

1.50 This chapter considers the potential effects of the Proposed Development on Ecology (not birds – bird life is considered in the section below). It details the ecological baseline conditions and identifies Important Ecological Features (IEFs). It also contains an Ecological Impact Assessment (EclA) on any IEFs considered to be potentially affected by the Proposed Development.

How have potential effects on ecology been considered?

1.51 The impact assessment was carried out in accordance with relevant legislation and current best practice. A range of ecology surveys were undertaken between 2020 and 2025 to define the ecological baseline for the Site. The surveys included a Desk Study, Phase 1 habitat surveys, National Vegetation Classification (NVC) surveys, bat roost assessments, bat activity surveys involving static detectors, great crested newt (GCN), fish habitat and surveys for protected mammals including badger, otter and water vole.

1.1 Study Areas³ were defined as follows:

- The Phase 1 habitat survey covered the Proposed Development area plus a 100 m buffer;
- NVC surveys covered the Proposed Development area plus a 100 m buffer and 200m for wetland habitats;
- Bat activity surveys covered the proposed turbine area plus additional bat detectors in accordance with guidance;
- Bat roost survey covered buildings, structure and trees within the Site and up to a 250 m buffer;
- Badger survey covered suitable habitats within the Site and up to a 100 m buffer;
- GCN survey covered the Site and a 250 m buffer; and

³ Surveys were carried out at publicly accessible locations, or areas where access was granted by the landowner

- The otter and water vole survey buffer area of watercourse habitat was up to a minimum of 250 m (otter) and 100 m (water vole) upstream and downstream of the Site and a search was undertaken of the watercourse banks and up to 20 m away from the water's edge (where suitable habitat was found to be present).

What wildlife species currently use the Site?

1.52 A total of 45 statutory nature conservation designations are present within 10 km of the Site. These include the River Wye (Upper Wye) Special Area of Conservation (SAC – an area protected by law for the habitats and/or species it supports) and /Site of Special Scientific Interest (SSSI - an area of land or water designated as being of special interest due to its nature features), located approximately 60 m west of the Site boundary at its closest point, and the Afon Gwy/River Wye (Tributaries) SAC/SSSI, approximately 220 m to the east. The Colwyn Brook Marshes North and South SSSI lies around 225 m north of the Site boundary. These designations are assessed in further detail. All other statutory designations in the local area are either designated for habitat and/or plant species interests only, with no likely effect arising from the Proposed Development, or there is no reasonable likelihood of ecological connectivity.

1.53 The Site itself is characterised by predominantly open upland ground. Much of the area is covered by continuous bracken, which is cut and utilised by local farmers for livestock bedding. Other habitat types, such as upland heathland and rush pasture and mire, occur where topography allows, although these represent a relatively minor proportion of the Site compared to bracken-dominated areas. The Site, which comprises common land, has historically been, and continues to be, subject to sheep and pony grazing.

1.54 Features generally considered to offer high foraging value for bats, such as broadleaved woodland, woodland edges, scattered trees, tree lines, hedgerows and watercourses, are largely confined to the lower lying areas. These areas, primarily around the Substation location, include woodland and hedgerows of high value for foraging bats. Based on established criteria, the Site overall is considered to be of low value for bats, due to the predominance of exposed open moorland, bracken and acid grassland and the absence of potential roosting features such as mature trees or buildings.

1.55 In the north of the Site, where the substation is proposed to be located, surveys identified nine trees with individual bat roost potential and two buildings with individual or low bat roost potential. In the north-east where the Site entrance is proposed to be located, this area supports five trees and one set of farm buildings (located off-site) with individual or low bat roost potential. No emergence surveys were undertaken in these areas, nor the southern part of the Site, due to the distance from turbines, the anticipated lack of impact and the dynamic nature of bat roosting behaviour.

1.56 Bat activity surveys across the Site in 2020 recorded a total of 10,580 bat passes of nine species (common pipistrelle, soprano pipistrelle, noctule, Leisler's, brown long-eared, serotine, *Myotis* species, lesser horseshoe and barbastelle). In 2023-2024 a total of 1,473 bat passes were recorded for nine species (common pipistrelle, soprano pipistrelle, noctule, Leisler's, brown long-eared, serotine, *Myotis* species, Nathusius' pipistrelle and *Plecotus* species). Evidence of badger activity, including setts and field signs, was recorded within the Study Area. Otter surveys identified only limited suitable habitat and found no evidence of otter presence. Similarly, no evidence of water vole was recorded. GCN were confirmed present in several ponds within and near the Site, supporting small to medium populations. Habitats on Site are also suitable for common reptiles such as slow worm and common lizard. No suitable habitat for fish or white-clawed crayfish was identified within the Site. NVC surveys recorded six communities with potential for moderate to high groundwater dependency.

What potential effects on wildlife species were identified?

1.57 The ecological assessment has considered the potential effects of the construction and operation of the Proposed Development on the wildlife species.

1.58 Watercourses on the Site, including the Cwmblaenerw Brook and Milo Brook, flow south and form tributaries of the River Wye SAC, while watercourses in the north near the proposed substation area drain into the Cnithio Brook, which also ultimately flows into the River Wye SAC. As such, there is a hydrological connection between the Site and the River Wye SAC/SSSI. The Proposed Development may also result in indirect impacts through accidental spillages and siltation of the water environment, potentially leading to pollution of these tributaries in proximity to the Site. Prior to the implementation of additional mitigation measures, such effects are

assessed as minor adverse and not significant. Minor direct impacts are also anticipated on northern watercourses due to temporary diversions required for cable installation.

1.59 The loss of habitats including acid grassland, marshy grassland, dry dwarf shrub heath, dry heath, acid flush, hedgerows and trees and one GCN pond during construction will result in minor adverse effects that are not significant.

1.60 A range of minor adverse to minor beneficial impacts are also assessed to result during the operational phase of the Proposed Development on the River Wye SAC and SSSI, woodland, bats (commuting and feeding) and GCN.

1.61 The cumulative assessment for bats with the Proposed Development and the constructed (but not operational) Hendy Wind Farm concluded that the effects would be negligible and not significant due to the intervening distance and small number of relevant bat species recorded.

Can these effects be mitigated?

1.62 A water quality monitoring programme and drainage strategy will be developed to monitor water quality within the Site during construction, to detect and rectify any pollution incidents that occur immediately, thereby mitigating impacts on the River Wye SAC/SSSI. This will be secured through the CEMP.

1.63 So that a measurable overall net benefit for biodiversity can be achieved for the Proposed Development, a Habitat Management Plan (HMP) will be implemented and a series of measures are set out in an outline HMP which is submitted with the planning application, and will be secured by a planning condition. Heathland creation will take place on the borrow pit sites, using seeds and pieces of turf collected on-site where possible. This which will enhance the biodiversity here for the benefit of invertebrates which in turn will provide food resources for bats, badger and birds. In addition, new hedgerow will be created in the lower-lying area in the north of the Site where the substation is proposed (away from turbines) that will benefit a range of species including bats and birds. In this same part of the Site, two ponds will be created to replace the one pond being lost as a result of the Proposed Development. Riparian (the land adjacent to watercourses) restoration is also proposed that will include tree planting around watercourses (away from turbines) and riparian vegetation establishment, which will benefit

aquatic species as well as water quality. Woodland management and creation in small pockets throughout the Site will also benefit a number of species including bats, badger and birds.

1.64 Turbines have been located away from features of highest value to bats such as woodland edges and watercourse corridors. In addition to this, a bat mitigation and monitoring strategy is proposed to reduce impacts on bats through feathering of turbines and curtailment of certain turbines, if required, in conditions when bats are likely to be active, and to monitor the level of bat activity and any fatalities at turbines. This will then be analysed to further refine the mitigation strategy for the remainder of the operational phase of the Proposed Development.

1.65 A NRW mitigation licence will be required for the proposed works on a project-wide basis due to the presence of GCN in different areas of the Site. A GCN Species Protection Plan will be required as part of the licencing requirements. This will detail mitigation and compensation measures.

After mitigation, what effects will remain?

1.66 Following the implementation of mitigation and management measures, residual adverse effects on habitats and species are predicted to be not significant. There will be a significant (beneficial) effect on ancient woodland following the implementation of the proposed HMP.

Ornithology (Bird Life)

Introduction

1.67 This chapter considers the potential effects of the Proposed Development on ornithology. It details the methods used to establish the bird species and populations present, together with the process used to determine their conservation status. The ways in which birds might be affected (directly or indirectly) by the construction and operation of the Proposed Development are explained and an assessment is made with regards the significance of these effects.

How have potential effects on birds been considered?

1.68 The assessment is structured around the consideration of potential effects, including cumulative effects, of construction and operation of the Proposed Development upon those ornithological receptors identified during survey work.

1.69 Desk-based studies and field surveys were carried out in and around the Proposed Development and are reported within respective 'study areas' to establish baseline conditions and the species and populations present.

1.70 It was possible to 'scope out' the effects on a number of species of high and moderate Nature Conservation Importance by virtue of their ecology, absence, distance from the Proposed Development, small numbers, low levels of activity and the nature and location of this activity.

What bird species currently use the Site?

1.71 Three bird species were included in the assessment: red kite, goshawk and golden plover (non-breeding population only). These species are considered to be of high Nature Conservation Importance due to their listing as Annex I (Birds Directive) or Schedule 1 (Wildlife and Countryside Act 1981).

What potential effects on birds were identified?

1.72 During the construction phase, nest sites of red kite, goshawk and other specially protected species would be safeguarded from disturbance, and any potential loss of foraging

habitat is not predicted to affect breeding status. Red kites would also be safeguarded while roosting. No significant effects on birds are predicted due to construction of the Proposed Development.

1.73 During operation, foraging red kites and goshawks are likely to be displaced from small areas surrounding turbines. However, this will not result in the loss of large areas of suitable habitat, with large areas of suitable hunting habitat available outside the turbine area. No roosting by golden plover was recorded so habitat use by this species will be unaffected. No significant displacement effects on birds are predicted due to the operation of the Proposed Development.

1.74 Information on flight activity by red kite and golden plover was used to estimate collision risk to these species. For red kite, this predicted that 1.84 birds may be killed annually and for non-breeding (wintering) golden plover, the prediction was 42.46 birds killed annually. Neither of these mortality estimates is predicted to result in significant effects. Cumulative collision risk to red kite and golden plover was assessed by considering risk from other developments in Mid Wales, and no significant effects are predicted.

Can these effects be mitigated?

1.75 No mitigation is proposed as there are no likely significant effects identified.

After mitigation, what effects will remain?

1.76 No likely significant effects have been identified.

Hydrology, Hydrogeology, and Geology

Introduction

1.77 This chapter considers the potential effects of the Proposed Development on hydrology, geology and hydrogeology. It details methods used to establish baseline conditions. This chapter details the ways in which hydrology, geology and hydrogeology may be directly or indirectly affected by the construction and operation of the Proposed Development, culminating in an assessment of the significance of these effects.

How have potential effects on the water environment and ground conditions been considered?

1.78 The assessment is structured around the consideration of potential effects, including cumulative effects, of construction and operation of the Proposed Development upon hydrological, geological and hydrogeological receptors. Various desk-based and field surveys have been completed in order to establish baseline conditions including two phases of peat and soil surveys, undertaken in May 2023 and March 2025 respectively, in addition to a water feature survey in September 2023.

1.79 As a result of no significant peat reserve being identified during the field surveys, it was possible to scope out the effect of the Proposed Development on peatlands.

What are the current water environment and ground conditions of the Site?

1.80 The Site is drained by the headwaters of the River Edw, River Wye and the Camnant Brook and multiple watercourses, springs, flushes and ponds are present across the Site. The River Wye and its tributaries are designated as a Site of Special Scientific Interest (SSSI - an area of land or water designated as being of special interest due to its nature features) and Special Area of Conservation (SAC - an area protected by law for the habitats and/or species it supports). The Colwyn Brook Marshes which extend onto the north of the Site are also a designated SSSI.

1.81 The majority of the Site is at low risk of flooding from rivers and seas as well as surface water and minor watercourses. However, there are some small, isolated areas with elevated risk

of surface water flooding, typically associated with minor watercourses/valley features, which extend across small sections of the Proposed Development (T2, T4, T6 and the substation).

1.82 The bedrock is classified by NRW as a Secondary B aquifer which are classified by the Environment Agency as rocks consist of lower permeability layers that may store and yield limited amounts of groundwater through localised features like fractures or weathering. They are generally less productive than Secondary A aquifers.

1.83 The superficial Glacial Till and Head deposits are classed as Secondary (undifferentiated) Aquifers and the Alluvium in the north of the Site as a Secondary A Aquifer. A Secondary Undifferentiated Aquifer is a UK groundwater classification used when rock formations have variable or poorly understood hydrogeological characteristics, making it difficult to assign them clearly to either the Secondary A or Secondary B category. Secondary A Aquifers are classified by the Environment Agency as permeable layers within rocks that can support locally important water supplies and may sometimes form an important source of base flow to rivers. Although they are not as productive or extensive as Principal Aquifers, they can still yield significant amounts of groundwater

1.84 A total of 18 Private Water Supplies (PWS) have been identified as having a potential linkage to the Proposed Development, and six wetlands identified as being directly dependent on groundwater bodies (known as Ground Water Dependent Terrestrial Ecosystems (GWDTE)).

1.85 Phase 1 and 2 peat and soil surveys constrained peat to small discrete patches at the margins of Cwmblaenerw Brook and British Geological Survey (BGS) mapped peat at the centre of the Site, which in all instances was <30cm in depth and therefore in accordance with the Soil Survey of England and Wales definition of peat, no peat was found on Site.

What potential effects on the water environment and ground conditions were identified?

1.86 During the construction phase of the Proposed Development, negligible to minor effects relating to construction Site run-off and potential spills, alterations in groundwater flow/elevations, alterations to surface-water drainage paths during temporary works, direct impacts on soil and land instability are anticipated.

1.87 There are likely to be moderate effects on three PWS arising from changes to groundwater flow/elevations, surface-water drainage paths during temporary construction works and release of construction site run-off containing silt.

1.88 There are likely to be major and moderate effects on four of the identified GWDTEs arising from release of construction site run-off impacted by silt, and alterations to groundwater flow and elevations.

1.89 During the operational phase, minor effects on flood risk and soils are associated with an increase in impermeable area, alteration to overland flow paths and increased run-off in the vicinity of tracks. Minor effects are also expected associated with the construction of watercourse crossings, stripping of soils from permanent infrastructure and creation of borrow pit voids. In addition, coolants used in the substation and potential leaks and spills during maintenance operations, provide a potential for land or water contamination. This is assessed as a minor effect.

Can these effects be mitigated?

1.90 Three PWSs have been assessed as being at moderate risk from the Proposed Development, to mitigate these potential effects, an on-site assessment of each PWS will be completed and if necessary, groundwater monitoring wells drilled and installed to enable monitoring of groundwater elevation and chemistry. This information will then inform the detailed CEMP which will be secured by a planning condition. In addition, water quality monitoring of the abstracted water and the watercourse(s) upstream of it will also be undertaken to enable the rapid identification of any deviation from baseline water conditions.

1.91 Two of the GWDTEs have been assessed as at high risk from the construction phase of the Proposed Development and one at moderate risk. To mitigate these potential effects ground investigation including the installation of groundwater monitoring wells will be drilled and installed to enable groundwater monitoring. This information will inform the detailed CEMP which will be secured by a planning condition. In addition, bespoke drainage designs may need to be implemented to maintain the groundwater feed to the GWDTEs particularly where earthwork cuts are proposed in proximity to the GWDTEs.

After mitigation, what effects will remain?

1.92 No likely significant effects have been identified.

Noise and Vibration

Introduction

1.93 Hoare Lea has undertaken the noise assessment for the construction and operation of the Proposed Development. Noise would be emitted by the Proposed Development, including by the wind turbines, other equipment and vehicles used during construction and operation of the Proposed Development.

How have potential effects relating to noise and vibration been considered?

1.94 Construction noise has been assessed by a desk-based study of a potential construction programme and by assuming the Proposed Development is constructed using standard and common methods. Noise levels have been calculated for receiver locations closest to the areas of work and compared with guideline values. Construction noise, by its very nature, tends to be temporary and highly variable and therefore much less likely to cause adverse effects. Various mitigation methods have been suggested to reduce the effects of construction noise, the most important of these being suggested restrictions of hours of working and near the Site Entrance, advanced notification with the occupants of nearby receptors.

1.95 Operational turbines emit noise from the rotating blades as they pass through the air. This noise can sometimes be described as having a regular 'swish'. The amount of noise emitted tends to vary depending on the wind speed. When there is little wind the turbine rotors will turn slowly and produce lower noise levels than during high winds when the turbine reaches its maximum output and maximum rotational speed. Background noise levels at nearby properties will also change with wind speed, increasing in level as wind speeds rise due to wind in trees and around buildings, etc.

What are the existing noise conditions at the Site?

1.96 Noise levels from operation of the turbines have been predicted for those locations around the Proposed Development most likely to be affected by noise. Noise surveys have been completed at four locations and considered to be representative and suitable for the

purposes of the assessment. Noise limits have been derived from survey data about the existing noise environment following the method stipulated in national planning guidance.

What potential noise effects were identified?

1.97 It is concluded that noise generated through the majority of construction activities would generally have negligible to minor temporary adverse effects at most which are not significant, with the exception of works associated with the Site entrance which could have a moderate temporary adverse effect which is significant.

1.98 If blasting is employed to quarry the proposed borrow pits, this should be controlled through a monitoring programme following the use of good practice during the setting and detonation of charges, managed in consultation with PCC. When managed accordingly, effects from blasting borrow pits are not significant in EIA terms.

1.99 Predicted operational noise levels have been compared to the limit values to demonstrate that turbines of the type and size which would be installed can operate within the limits so derived. It is concluded therefore that operational noise levels from the wind turbines are considered not significant in EIA terms.

1.100 Potential cumulative wind turbine noise from the Proposed Development with a single smaller turbine (operational) were also assessed and were determined to be negligible or not significant. Other, more distant wind farms were not considered as they do not make an acoustically relevant contribution to cumulative noise levels.

1.101 The Proposed Development would also include a substation, which would emit some noise during operation. Based on a combination of available noise specification data and experience of similar installations to represent equipment, the associated levels of operational noise would represent a major adverse effect which is considered significant in EIA terms.

Can these effects be mitigated?

1.102 By managing the site entrance works, with measures including liaison with the residents for works in proximity to the property Craiglea and use of quieter construction techniques and equipment where reasonably practicable, a minor temporary adverse effect would result which is not significant in EIA terms.

1.103 Operational noise levels of the substation transformers at the nearest receptors have been managed to low levels by using a combination of suitable plant selections, suitable layout arrangement of equipment and/or mitigation measures such as specialist enclosures, or enclosing the transformers in a solid building. The noise levels achieved through these mitigation measures would result in a minor adverse effect which is not significant in EIA terms.

After mitigation, what effects will remain?

1.104 No significant residual effects are predicted from the Proposed Development.

Transport and Access

Introduction

1.105 This chapter considers the potential effects of the Proposed Development on Access, Traffic and Transport during the construction phase, including both general construction traffic and the transportation of the wind turbine components to Site, known as abnormal indivisible loads (AILs).

1.2 The operational phase is restricted to maintenance operations which generate significantly lower volumes of traffic that are not considered to be more than daily traffic variation levels on the road network.

How have potential effects on road and Public Rights of Way users been considered?

1.3 Construction and operational traffic have been assessed by carrying out desk-based research, including the review of relevant transport planning policy, the collection of traffic flow information, the identification of sensitive locations (such as settlements and schools) and traffic sensitive receptors, including users of Public Rights of Way (PRoW) and roads, and residents of local communities). A visit to the Site and wider Study Area has also been carried out to review the potential access routes and constraints.

1.4 A review of consented developments was undertaken as part of the baseline assessment. No onshore wind farm developments or other significant traffic generating developments with planning permission were identified, that should be considered as part of any cumulative assessment.

What are the existing traffic and transport conditions of the Site?

1.106 Access to the Site will be via an upgraded simple priority access junction at the existing C1336 / U1377 priority junction. This access junction will be designed to accommodate all predicted loads and traffic for all phases of the Proposed Development.

1.107 Access to the substation will be through an upgraded access junction on the A481, which currently comprises a gated access.

1.108 Construction traffic associated with the Proposed Development will generally approach from the east and west of the A841.

1.109 Two possible AIL delivery route options have been considered, one route originates from Port of Swansea and the other route originates from Port of Birkenhead. It is anticipated that the AIL deliveries will take place outside of the peak of construction.

1.110 Baseline traffic data was obtained from a combination of Automatic Traffic Count Surveys (ATCs) and existing information from the UK Department for Transport (DfT).

1.111 There are limited pedestrian facilities in the immediate vicinity of the Proposed Development, reflecting the rural nature of the area. There are however a number of PRowS within the application boundary.

1.112 Within the Study Area, National Cycle Network (NCN) Route 825 runs along the C1336 and passes the Site access junction. It continues along a short section of the A481 of approximately 520 m between the A481 / C1336 priority junction and Hundred House. NCN Route 825 overlaps the study area again for a short section of the A483 of approximately 210 m in length within Llandrindod Wells.

1.113 NCN Route 8 runs along the B4567, bordering the Site to the west, and overlaps the study area for a small section of the A481 of approximately 150 m in length to the east of Llanelwedd, between the A483 / Parc Menter Wyeside Enterprise Park roundabout and the A481 / B4567 priority junction.

1.114 There are areas of Common Land and Open Access Land within the Site boundary.

What potential construction effects on traffic and transport conditions were identified?

1.115 The construction traffic would result in a temporary increase in traffic flows on the road network surrounding the Proposed Development. The peak of construction in terms of vehicular movements is expected to occur in Month 8 and 9 will be 244 daily journeys (72 Car / Lights and 172 HGV journeys). Over the course of a typical 12 hour working day on the Site, this would equate to approximately 14 two-way HGV movements per hour.

1.116 The assessment of significance suggests that the following receptors are considered likely to experience Significant effects in accordance with the EIA Regulations, prior to the application of mitigation measures:

- Residents / visitors and users of the C1336 (and U1377), near the Site Access;
- Residents / visitors and users of the A481, as well as Hundred House (including Fforest Fields);
- Residents / visitors and Users of A44, southwest of Radnor; and
- PRoW network / Common Land and Open Access Land users.

1.117 It should be noted that the impacts relate solely to the peak of construction activities and that the construction period is short lived and the effects are temporary in nature.

Can these effects be mitigated?

1.118 The following measures will be implemented to mitigate any adverse effects of construction traffic during the construction phase:

- Construction Traffic Management Plan;
- Abnormal Load Transport Management Plan;
- Path Management Plan; and
- A Staff Travel Plan.

After mitigation, what effects will remain?

1.119 With the implementation of appropriate mitigation, no significant residual effects are anticipated in respect of traffic and transport issues. The residual effects are all assessed to be minor as they would occur during the construction phase only, they are temporary and reversible.

Other Topics Considered

Socio-Economics

1.120 Socio-economic effects are scoped out of the ES, as these potential effects, such as job creation and changes to recreational activity, are not considered significant. A standalone Socio-Economic Benefits document will be submitted with the DNS application.

Major Accidents and Disasters

1.121 The Proposed Development is not located in an area with a history of natural disasters such as extreme weather events, and its construction and operation will be managed within the requirements of the current health and safety related control mechanisms and good practice infrastructure design. Therefore, this topic is scoped out of the ES.

Population and Human Health

1.122 Population and Human Health has been scoped out of the ES as there is not expected to be any potential health effects that are considered significant as a result of the Proposed Development.

1.123 Health effects that could be a result of construction and operational noise and construction traffic accidents, as well as the deterioration of water quantity and quality of public and private water supplies are considered in the ES.

1.124 All construction activities will be managed within the requirements of the Construction (Design and Management) Regulations 2015 and will also follow requirements of the Health and Safety at Work etc. Act 1974.

Utilities

1.125 There is minimal existing utilities infrastructure within the Site, including two overhead lines which are located away from the locations of the proposed wind turbines and other infrastructure. Utilities during construction of the Proposed Development will be controlled by the Construction Environmental Management Plan (CEMP) and managed under the relevant health and safety regulations.

Telecommunications

1.126 Telecommunication infrastructure are the components that aid in the transmission of information. Telecommunications infrastructure was identified through consultation with the relevant telecommunications stakeholders and a Telecommunications Impact Assessment has been carried out. The results of the assessment indicate that the Site is partially constrained by two telecommunications link paths. However, the layout has been designed to locate all wind turbines outside of the exclusion zones of these paths. Therefore, mitigation is not required for the Proposed Development, based on consultation responses and assessment findings.

Shadow Flicker

1.127 Shadow Flicker is caused by rotating wind turbine blades when they obstruct the sun's rays, causing the shadow of the wind turbine to flick on and off. This can result in an intermittent nuisance when the shadow is cast over the windows of residential properties.

1.128 A shadow flicker assessment has been carried out as part of the ES. The results of this assessment have indicated that 66 residential properties around the Proposed Development may be affected by shadow flicker (based on the worst-case scenario). 33 of the 66 properties will receive shadow flicker effects for more than 30 minutes per day and more than 30 hours per year. 11 properties will experience no shadow flicker effect, and 22 properties will experience less than 30 minutes per day and less than 30 hours per year.

1.129 The Applicant has proposed a planning condition to mitigate shadow flicker events, which includes a complaints procedure.

Aviation

1.130 An Aviation Assessment of the Site has been undertaken which has identified that there will be no aviation effects during construction or decommissioning. During operation, the wind turbines will be within the radar line of sight of Clee Hill radar. It is understood that this radar will be replaced, given the large number of other wind farm developments that are affected by this issue. Mitigation relating to aviation will be secured by planning condition.

1.131 An Aviation Lighting and Mitigation Report has also been prepared. This sets out the aviation lighting required for the operational safety of the Proposed Development. The report includes a Civil Aviation Authority approved aviation lighting layout which minimises the number

of lit wind turbines whilst fulfilling flight safety requirements and sets out the mitigation techniques. Aviation lighting is assessed in the Landscape and Visual Amenity chapter of the ES.

Climate Change

1.132 A carbon balance assessment has been carried out which shows that the energy produced by the Proposed Development will be 20,307,432 Megawatt hours (MWh). However, the Proposed Development is likely to produce 290,271 tonnes of carbon dioxide (CO₂) (a greenhouse gas that released into the atmosphere through burning fossil fuels (coal, natural gas, and oil)). This CO₂ will mainly be produced during the construction of the wind turbines, access tracks and other infrastructure. The carbon balance assessment concludes that this release of CO₂ will be paid back within 0.8 years of operation of the Proposed Development.

Inter-related Cumulative Effects

Introduction

1.133 Each individual topic assessment in the ES considers the potential effects that the Proposed Development will have with regards to that topic area, for example ecology.

1.134 However, there is the potential for effects to interact, spatially and temporally, to create inter-related effects. As an example, all effects on a given receptor such as local residents, from construction dust and noise, increased traffic and visual change etc. may interact to produce a greater effect on this receptor than when the effects are considered in isolation.

1.135 Therefore, the impact interactions assessment identifies where any additional effects arise through a combination of the effects identified in the individual topic assessments.

Overview of Methodology

1.136 The assessment has been undertaken on a qualitative basis, informed by professional judgement and experience, in a three-stage process as follows:

- **Stage 1: Topic Specific Assessment** – as set out in **Chapters 5-11** of the ES (and summarised above in this NTS).
- **Stage 2: Identification of Receptors** – common receptors across the topic chapters are identified, where that receptor is likely to experience effects across more than one topic.
- **Stage 3: Assessment of Potential Effect Interactions on Receptor Groups** – a qualitative assessment considering the scope for all effects to interact, spatially and temporally, to create inter-related effects.

Summary of Impact Interactions

1.137 The following potential interrelated effects at specific receptors were identified:

Table 1.2 Table 2: Summary of interrelated effects

Receptor	Chapter 5: Landscape & Visual	Chapter 6: Archaeology and Cultural Heritage	Chapter 7: Ecology (non-avian)	Chapter 8: Ornithology	Chapter 9: Hydrology, Hydrogeology & Geology	Chapter 10: Noise & Vibration	Chapter 11: Transport and Access
Designated Historic Assets (Cwmblaenerw Enclosed Long Hut and House Platforms, and the Aberedw Hill Deserted Rural Settlement)	X	X					
Habitats within areas of peaty soils and GWDTEs			X		X		
PRoW / Common Land / Open Access Land Users	X						X
Residential Properties within 2km of the Site	X				X	X	X

Summary

1.138 The EIA for the Proposed Development has been carried out in accordance with regulatory requirements and guidance on good practice. The findings of the surveys undertaken, in addition to consultation, have informed the design process and, as a result, effects have been reduced for a number of receptors.

1.139 Prior to additional mitigation, potential significant effects have been predicted within the ES in relation to landscape and visual; archaeology and cultural heritage; transport and access; and hydrology, hydrogeology, and geology. However, there is scope to mitigate many of the predicted significant adverse effects and a number of these effects are predicted to be not significant following implementation of the proposed additional mitigation.

1.140 Significant (negative) residual effects from the Proposed Development are limited to landscape and visual impact during construction and operation; and in relation to cultural heritage during operation (residual effects on the setting of two heritage assets). These effects have been reduced to the lowest practical level via the iterative design process for the Proposed Development. There will be significant (positive) residual effects for climate change relating to carbon losses and savings.

1.141 Throughout the EIA process consideration has also been given to the potential for cumulative and interrelated effects. No significant cumulative or additional significant interrelated effects are predicted to occur, over and above the significant effects reported as a result of the Proposed Development.