

Penderfyniadau Cynllunio ac Amgylchedd Cymru Planning &

Environment Decisions Wales

Report

Site visits made on 12/09/23 & 10/10/23

by Melissa Hall BA (Hons) BTP MSc MRTPI

an Inspector appointed by the Welsh Ministers

Date: 20.10.2023

TOWN AND COUNTRY PLANNING ACT 1990

SECTION 62D

The Developments of National Significance (Wales) Regulations 2016

The application dated 7 October 2022, was made under section 62D of the Town and Country Planning Act 1990 (as amended by the Planning (Wales) Act 2015).

The applicant is Pennant Walters Limited.

The application was confirmed as valid on 23 November 2022.

The proposed development is a wind farm of up to 8 turbines and associated infrastructure.

Land to the West of Abertillery, Blaenau Gwent

Cyf ffeil/File ref: DNS/3270299

Procedural Matters

- 1. The examination was suspended on 5 January 2023 to allow the Local Planning Authority (LPA) to submit its Local Impact Report (LIR). The suspension was extended on 19 April 2023 for the applicant to submit further information on matters including landscape and visual amenity, ground stability, land contamination and ground water protection, ecology, and highway safety. The applicant submitted the requested information which was subject to consultation ending on 23 June 2023.
- 2. Further to the submission of the LIR, I understand that the LPA subsequently sought the views of Glamorgan Gwent Archaeological Trust (GGAT) as the archaeological advisors to the Unitary Authorities in south-east Wales. I have been provided with a copy of GGAT's representations, dated 14th August 2023, which I have reported alongside the consultation replies from other statutory consultees and interested parties in the interest of completeness.
- 3. On 18 August 2023, the applicant wrote to Planning and Environment Decisions Wales (PEDW) to request that, having regard to *Finney v Welsh Ministers & Ors [2019] EWCA Civ 1868,* the description of the development be amended by omitting reference to the rotor diameter, hub height or blade tip measurements. As the proposed scheme remains the same as that applied for and maximum parameters could be contained in a planning condition in the event of planning permission being granted, I am satisfied that the proposed change to the wording of the description of development does not alter the proposal that is before me. Accordingly, I did not consider it necessary to re-consult interested parties on the proposed amendment. The wording to be used in the decision, however, is a matter for the Welsh Ministers.
- 4. Having considered the representations, the ES, the Further Information and the other application documents, I concluded that it was necessary to hold hearing sessions in respect of the following:
 - Character and appearance
 - Planning conditions
 - Other Matters (including minerals safeguarding, highway safety and cumulative effects)
- 5. Participants of the hearing sessions were invited to provide hearing statements in advance of the relevant sessions. Statements were submitted on behalf of the applicant only.
- 6. The applicant has agreed Statements of Common Ground (SoCG) with Blaenau Gwent County Borough Council (BGCBC) and Natural Resources Wales (NRW), which include the schedule of draft planning conditions original submitted by BGCBC and amended through the examination process in discussion with interested parties. However, an amended schedule of planning conditions was subsequently submitted to reflect the matters arising from the hearings. The relevant parties were given the opportunity to comment on the same.
- 7. Whilst the first unaccompanied site visit of 12 September 2023 was undertaken in inclement weather, visibility was satisfactory for much of the day from the immediate and wider surroundings. However, a second visit was conducted on 10 October 2023 which provided an opportunity to view the site from additional viewpoints.
- 8. Interested parties have raised concern regarding what they believe to have been a flawed public consultation exercise, not least due to (i) the turbine size being seriously

under-represented in consultation letters and photographs resulting in residents being asked to comment on incorrect information; and (ii) an incorrect and misleading name given to the proposal given that the site is on the Arail hilltop rather than Mynydd Carn Y Cefn (which is a summit about 4 or 5 miles north west of the site). I am satisfied that the consultation / publicity requirements have been followed to the extent that this matter does not seriously undermine my ability to accurately assess the impact of the proposed development, which is based on the totality of the written and oral submissions and my site visits.

Environmental Impact Assessment (EIA)

- 9. The submission was accompanied by an Environmental Statement (ES). The ES comprises the following volumes: Volume 1 Non-technical Summary; Volume 2 Main Text (Chapters 1-17); Volume 3 Appendices (technical information relating to the environmental topics such as detailed methodologies, baseline data information and data analysis); and Volume 4 Figures (the plans / drawings / details / illustrations that accompany the ES).
- 10. The ES has been prepared using the following structure: Chapter 1 Introduction; Chapter 2 - Approach to Environmental Impact Assessment; Chapter 3 - Scheme Need, Alternatives and Iterative Design Process; Chapter 4 - Description of the Proposed Development; Chapter 5 - Legislative and Policy Overview; Chapter 6 - Landscape and Visual Impact Assessment; Chapter 7 - Historic Environment; Chapter 8 – Biodiversity; Chapter 9 – Ornithology; Chapter 10 - Water Environment; Chapter 11 - Ground Conditions; Chapter 12 - Traffic and Transport; Chapter 13 – Noise; Chapter 14 -Aviation and Telecommunication; Chapter 15 - Shadow Flicker; Chapter 16 - Socioeconomics; and Chapter 17 - Cumulative Effects.
- The ES was found to contain the level of information identified in Regulation 17 and Schedule 4 of The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 (hereinafter referred as the EIA Regulations) and was therefore declared complete for the purposes of those regulations.

Habitats Regulation Assessment

- 12. There are three European designated nature conservation sites within 10km of the application site, Aberbargoed Grasslands Special Area of Conservation (SAC), Cwm Clydach Woodlands SAC and Usk Bat Sites/ / Safleoedd Ystlumod Wysg SAC.
- 13. Regulation 63 of The Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations') states that if a plan or project is "(*a*) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and (b) is not directly connected with or necessary to the management of the site", the competent authority must "...make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives" before undertaking, consenting or permitting the plan or project.
- 14. The application was accompanied by a shadow Habitats Regulations Assessment (sHRA) dated April 2022 and referenced 'Appendix 8G: Information to Support an Assessment against Regulation 63 of the Conservation of Habitats and Species Regulations 2017.
- 15. The sHRA concludes that there is no pathway by which the conservation objectives for the Aberbargoed Grasslands SAC or Cwm Clydach Woodlands SAC could be undermined by the proposed development, either alone or in combination, given the separation distances and the lack of hydrological or ecological connectivity. NRW has confirmed that it concurs with this position.

- 16. Turning to the Usk Bat Sites/ Safleoedd Ystlumod Wysg SAC. Surveys have recorded lesser horseshoe bats on and adjacent to the site and, due to the proximity to the SAC, these bats are considered to contribute to the population for which the Usk Bat Sites/ Safleoedd Ystlumod Wysg SAC is notified.
- 17. The sHRA considers that although lesser horseshoe bats have been recorded on site, the habitats within the site boundary are used only infrequently by this species with low or no activity at turbine locations. It is on this basis that the assessment finds that there is an absence of effect pathways on the SAC due to *inter alia* the distance of known lesser horseshoe roosts and important commuting or foraging habitat (located outside the site) from construction and operational areas. Due to the combination of low or low-moderate activity levels and lesser horseshoe bats being a low collision risk species with an overall 'low population vulnerability' to collision, the risk of significant effects on lesser horseshoe bat populations due to collision/barotrauma fatalities associated with the proposed development is considered to be negligible.
- 18. Having regard to NRW's specialist advice, I am satisfied that the proposal alone or incombination with other projects, would not have a likely significant effect on the integrity or undermining of the conservation objectives of the Usk Bat Sites SAC as there are no known potential pathways to this protected site.
- 19. In view of the above findings, it is not necessary to undertake an Appropriate Assessment.

The Site and Surroundings

- 20. The site encompasses an area of approximately 208 hectares (ha) and compromises a mix of semi-improved and improved grassland which forms the southern end of a forked upland ridge between the Ebbw Fawr valley and the Ebbw Fach valley. It is split by an area of coniferous plantation woodland on the slopes of Cwm Big and a forestry haul road which follows the course of the Nant Big watercourse northwards from Aberbeeg.
- 21. The site is located approximately 500m from the western edge of Abertillery and the village of Cwm is located approximately 700m to the north-west of the site.
- 22. A more detailed description of the site and surrounding area is set out in Chapter 4 of the ES.

Proposed Development

- 23. The proposed development consists of up to eight wind turbines, with a maximum hub height of 105m and a maximum height to blade tip of 180m. Associated development includes unit transformers at each turbine, access routes, electricity substation, and a temporary site compound (maximum 50m x 50m).
- 24. The development would have an installed capacity of up to 34MW dependent on the final turbine chosen for the scheme, albeit for the purposes of the ES a 4.2MW turbine has been used. The annual generation for an 8 turbine scheme would equate to some 33.6MW and be expected to supply the domestic electricity needs of approximately 21,084 households. The proposed wind farm is designed with an operational life of 30 years and a temporary planning permission is sought for this period of operation only.
- 25. The access point into the site is from the forestry haul road off the A4046 Aberbeeg Road to the west. Construction of the wind farm is anticipated to take around 22 months, depending upon weather conditions. It is anticipated that the Abnormal Indivisible Loads (AILs) would travel by road from the Port of Swansea.

- 26. A connection between the on-site substation and the electricity grid at Crumlin would be subject to a separate planning application but has been considered in the ES.
- 27. Full details of the proposed development can be found at Chapter 4 of the ES.

Planning Policy

The Development Plan

- 28. The development plan comprises Future Wales (FW) and the Blaenau Gwent Local Development Plan up to 2021 (LDP), adopted in November 2012.
- 29. FW Policy 17 requires decision makers to give significant weight to meeting Wales' international commitments and the Government's target to generate 70% of consumed electricity by renewable means by 2030. In Pre-Assessed Areas (PAA) for Wind Energy the Welsh Government has already modelled the likely impact on the landscape and has found them to be capable of accommodating development; there is a presumption in favour of large-scale wind energy development in these areas, subject to the criteria in Policy 18.
- 30. Policy 18 is clear that the requirement for a proposal to not have an unacceptable adverse impact on the surrounding landscape (particularly on the setting of National Parks and Areas of Outstanding Natural Beauty) relates to those sites outside of the PAAs for wind development. It is permissive of low carbon energy projects subject to there being no unacceptable adverse impacts on, amongst other things, ecology, heritage assets and the living conditions of nearby residents.
- 31. Policy 9 requires action towards securing the maintenance and enhancement of biodiversity (to provide a net benefit), and that 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.
- 32. Within Policy 33, which identifies Cardiff, Newport and the Valleys as a National Growth Area, the overall strategic view for development in the South East area is set out. Among other provisions, the Policy states that "*The Welsh Government supports co-ordinated regeneration and investment in the Valleys area to improve well-being, increase prosperity and address social inequalities*'.
- 33. LDP Policy SP7 seeks to address climate change and reduce energy demand to improve the sustainability of the valley communities in Blaenau Gwent, including by encouraging more of the county's electricity and heat requirements to be generated by renewable and low/zero carbon technologies. Policy DM4 encourages major development proposals to incorporate schemes which generate energy from renewable and low/zero carbon technologies. These technologies include onshore wind, which will be permitted provided that the development *inter alia* would not have any unacceptable adverse impact on nature conservation, the character and appearance of the landscape and local amenity.
- 34. Policy SP10 seeks the protection and enhancement of the natural environment and designated landscapes across the county, whereas Policy DM14 resists development that would result in an adverse effect on the integrity of international, national and local designations of nature conservation importance, including the Usk Bat Sites Special Area of Conservation (SAC).

35. Other policies of relevance include:

SP9	Active and Health Communities
SP11	Protection and Enhancement of the Historic Environment
DM1	New Development
DM2	Design and Placemaking
DM16	Trees, Woodland and Hedgerow Protection
DM19	Mineral Safeguarding
ENV2	Special Landscape Areas
ENV3	Sites of Importance for Nature Conservation
M1	Safeguarding of Minerals
M2	Mineral Buffer Zones
M4	Protected Areas

36. Given the scheme's potential for indirect effects on landscapes in the wider area and outside BGCBC's administrative boundaries, regard has also been had to the Development Plan policies of neighbouring Councils as follows:

Caerphilly County Borough Local Development Plan, adopted 2010.							
CW4	Natural Heritage Protection	Permits development proposals only where they conserve and, where appropriate, enhance the distinctive or characteristic features of the Special Landscape Area(SLA) or Visually Important Local Landscape (VILL).					
NH1	Special Landscape Areas (SLAs)	Identifies and seeks to protect SLAs.					
NH2	Visually Important Local Landscapes (VILLs)	Identifies and seeks to protect VILLs.					
Torfaen County Borough Council Local Development Plan, adopted 2010.							
C2	Special Landscape Areas	Development proposals that could impact on SLAs will be expected to conform to high standards of design and environmental protection which is appropriate to the LANDMAP character of the area.					

Other National Policy

- 37. PPW states that low carbon electricity must become the main source of energy in Wales (5.7.1) and the planning system should secure an appropriate mix of energy provision whilst minimising potential environmental and social impacts (5.7.6). PPW sets a target of 70% of electricity consumption from renewable energy by 2030 (5.7.14). In determining applications for renewable energy decision makers should take into account the contribution a proposal will make to meeting identified Welsh, UK and European targets.
- 38. The Technical Advice Notes (TANs) relevant to the consideration of onshore wind farms include:
 - Technical Advice Note 6: Planning for Sustainable Rural Communities (2010)
 - Technical Advice Note 5: Nature Conservation and Planning (2009)

- Technical Advice Note 11: Noise (1997)
- Technical Advice Note 12: Design (2016)
- Technical Advice Note 19: Telecommunications (2002)
- Technical Advice Note 23: Economic Development (2014)
- Technical Advice Note 24: The Historic Environment (2017)
- 39. There are also a range of legislative, regulatory and policy imperatives that embed the need to reduce carbon emissions and increase the renewable energy capacity of Wales, including:
 - Energy Wales: A Low Carbon Transition (2012)
 - Environment (Wales) Act 2016
 - Energy Generation Targets for Wales: Statement to Assembly Members (2017)
 - Policy Statement: Local Ownership of Energy Generation in Wales Benefitting Wales Today and for Future Generations (2020)
 - Net Zero Wales (2021)

The Case for the Applicant

The application is supported by an Environmental Statement (ES) and a range of other documents. Evidence of particular relevance to the determination of the proposal is summarised as follows:

Planning Policy

40. FW is the most up-to-date development plan and in accordance with the latest PPW. Therefore, an assessment of the proposed development against the policies of FW is crucial to establishing the planning merits. However, understanding the compliance with the aims of PPW is also crucial to understanding the compliance with national policy.

Benefits

- 41. Based on turbines of 4.2MW capacity, the proposed development would see the generation of 33.6MW of renewable energy which would support the electricity needs of around 21,084 homes.
- 42. Additionally, the proposed development would support investment in the economy and employment with approximately 57 FTE (full time equivalent) jobs during construction and 4 FTE during operation. It is estimated that the expenditure in Wales associated with the construction phase would total £13.3m whilst the operation phase would equate to £0.99m per annum.
- 43. The applicant is a business registered in Wales, and therefore meets the WG definition of local ownership. The proposed development would therefore contribute to the WG local ownership of renewable energy target.

Landscape and Visual Impact

44. With regards to landscape and visual impacts, the acceptance of some degree of landscape change is outlined in FW Policy 17 and the identification of PAA for Wind Energy. The ES identifies that there will be some significant effects on local landscape designations (within five Special Landscape Areas). There are no significant effects on the nationally designated Brecon Beacons National Park.

45. Additionally, the LVIA identifies that there would be likely significant visual effects on a range of residential receptors. However, the Residential Visual Amenity Assessment (RVAA) finds that there is no change that would lead to the residential areas becoming an unattractive place to live (as opposed to less attractive) when judged objectively, and in the public interest.

Historic Environment

- 46. The ES concludes that the proposed development would not result in significant effects on built heritage assets including a number of listed buildings, Blaenavon Industrial Landscape World Heritage Site or a number of Scheduled Monuments.
- 47. Additionally, the proposed development would not result in any significant effects from disturbance of archaeological remains. Direct effects on existing known archaeology would be mitigated through archaeological recording secured through a planning condition.
- 48. Consideration has been given to cumulative effects and a moderate (significant) effect on the setting of St Illtyd's Castle Mound Scheduled Monument in combination with other schemes, has been assessed (although assessment is based on early scoping information for the other wind farms).
- 49. A Mitigation Plan has been prepared in order to describe historic environment mitigation and enhancement measures which are proposed to reduce and compensate for effects on the historic environment arising out of the construction and operation of the proposed development.
- 50. Thus, there are considered to be no unacceptable adverse impacts on built heritage assets.

Ecology

- 51. The ES concludes that there would be no unacceptable impacts on protected species or habitats. Neither would there be adverse effects on the integrity of the Usk Bat Sites SAC. Given the distance between the Aberbargoed Grasslands SAC and Cwm Clydach Woodlands SAC, the Habitats Regulation Assessment concludes that there would not be significant impacts on the ecological interest of these sites (alone or cumulatively) as a result of the proposed development.
- 52. The proposed development would have no effect on the integrity or conservation status of nine Sites of Importance for Nature Conservation (SINCs) within the site boundary. A range of embedded measures will ensure that protected species are safeguarded during construction including pre-construction surveys, method statements for vehicle movements, excavations, site lighting and construction activities. A Habitat Management Plan will set out the objectives for biodiversity protection, mitigation, monitoring and habitat enhancement measures.
- 53. A range of embedded measures would ensure that protected species are safeguarded during construction including pre-construction surveys, method statements for vehicle movements, excavations, site lighting and construction activities. Specific measures are also included for reptiles including implementation of standard best practice and effective management of potential reptile habitats and for bats, including design measures and a range of methods to avoid collision, 'feathering' of turbines when idle and monitoring.
- 54. The ES considers that although the proposed development would affect the use of the site and increase the mortality risk for bats (particularly common pipistrelle) locally, due to the embedded measures there are unlikely be any significant effects on local bat populations. The ES considers that effects on reptiles during construction will largely be

avoided or mitigated and whilst the mortality risk will be elevated above baseline levels such risk will be moderated and there will be negligible effects on reptile populations during operation. The ES considers that there is a lack of suitable habitat to support dormice.

Noise

55. Compliance with noise limits based on worst case scenario is assessed based on modelling operation except for one noise sensitive receptor where slight exceedances are predicted in the daytime of the operational phase. With further baseline monitoring the turbine noise levels at the receptor where exceedances are predicted could be reduced to under the noise limits. The ES notes that if exceedances remain, the noise levels would be able to be further reduced using low noise modes of the candidate turbine. It is therefore considered that the proposed development, if mitigated, would not result in a significant noise effect.

Shadow Flicker

- 56. The applicant is committed to installing a shadow flicker impact control module prior to operation to turbines which have the potential to cause shadow flicker on nearby properties as an embedded design measure. It is anticipated that a condition could be attached to a permission to ensure that any complaints of shadow flicker be investigated, and problems substantiated would be mitigated promptly and effectively.
- 57. Overall, no significant effects on residential properties are considered likely.

Traffic and Transport

- 58. The ES examines the potential effects on the transport network and assesses the A4046 (Ebbw Vale), A4046 (Aberbeeg) and A467 (Brynithel) roads. Based on the construction programme the combined wind farm and grid connection construction traffic would result in an approximate peak of 62 HGV movements per day two-way.
- 59. The ES is also supported by an Abnormal Indivisible Loads (AIL) access study, which identifies the preferred route for AIL transit. The study identifies temporary structural improvements are required at a number of junctions.
- 60. A Draft Construction Traffic Management Plan (CTMP) has also been prepared. This sets out the management of daily delivery profiles and control construction vehicle movements and routeing of HGVs to/from the site.

Cumulative effects

61. The ES sets out an assessment of the cumulative effects of the proposed development in combination with existing and consented renewable energy schemes within the topic-related specific chapters. Overall, the cumulative assessment does not identify any additional impacts that would be unacceptable.

Blaenau Gwent County Borough Council

The Local Impact Report (LIR) details the Council's factual and objective view regarding the likely impact of the proposed development. It should be noted that it was produced prior to the submission of the Further Information in May 2023. Consequently, the Council has amended its position on some of the matters it identified as at issue in its LIR following the submission of the Further Information, the SoCG and subsequent oral submissions at the Hearing sessions. Its final, updated position is therefore detailed in the relevant sections below.

Landscape and Visual Impact

- 62. The Council anticipates that the introduction of substantial new man-made prominent and dominant structures into the landscape, skyline and views out of the valley, that would contrast with the small-scale valley landform, could reduce the strong rural character and hidden tucked away qualities of the landscape. Further it is noted that insufficient information has been submitted with regards to the programmed felling of coniferous forestry and the implication this could have on the localised landscape and changes to the nature of available views to a number of visual receptors within the LVIA study area. It is therefore anticipated that the size, scale, elevated position, visual prominence and dominance of the turbines would have a negative impact upon the landscape character areas within the administrative area BGCBC.
- 63. LANDMAP Aspect Area The reports submitted have assessed the proposal relative to two Geological Landscape Aspect Areas (GLAAs) Mynydd Carn y Cefn and Cefn yr Arail. Both are deemed to have a high landscape value; a medium-low landscape susceptibility and an overall landscape sensitivity of medium. However, the magnitude of change arising from the development is deemed to be low with a moderate/ minor to no level of effect. Given the above, it is anticipated that the impact of the proposal on the GLAAs would be neutral.
- 64. Landscape Habitats Aspects Areas Four Landscape Habitats Aspects Areas (LHAA) receptors within the Study Area have been assessed as part of the proposal. At its greatest impact, it is considered that the proposal would generate a low magnitude of change with a moderate to minor level of effect. Given the above, it is anticipated that the impact of the proposal on the LHAAs would be neutral.
- 65. Visual and Sensory Aspect Areas The study has reviewed 40 Visual and Sensory Aspect Areas (VSAA) within the Study Area. Of these, eleven have been identified as likely to experience significant landscape effects. Given the proportion unlikely to be affected, the impact of the proposal is anticipated to be neutral.
- 66. Historic Landscape Aspect Areas Of the 60 Historic Landscape Aspect Areas (HLAA) within the study area, two (Hafod Y Dafal and St Illtyds Fieldscape) are considered to experience significant landscape effects as a result of the proposal. Given the number of aspect areas unaffected, the impact of the proposal is anticipated to be neutral.
- 67. Cultural Landscape Services Aspect Areas Whilst the applicant's submissions identify that no Cultural Landscape Services Aspect Areas are predicted to experience significant landscape effects, all would experience a medium magnitude of change and a moderate (potentially significant) level of effect. The effect of the proposal is anticipated to be negative, not significant.
- 68. Local Landscape Designations The application site is located within the Mynydd Carn y Cefn and Cefn yr Arail Special Landscape Area (SLA). The value of the SLA is assessed as High to Medium. The susceptibility of the primary landscape qualities and features of the SLA to the type of development proposed is assessed as Medium to High. it is anticipated that the impact on the turbines due to the size, scale, density of provision and the undeveloped area within the SLA would have a negative impact on the designation. Given the actively managed context of the site, it is anticipated that impact of the grid connection would be neutral.
- 69. Indirect landscape effects on SLAs and Visually Important Local Landscapes -Significant landscape effects are predicted for the Eastern Ridge and Mynydd James SLA, Cwm Tyleri, Cwm Celyn SLA, Cefn Manmoel SLA and the St. Illtyd Plateau and Ebbw Eastern Sides SLA together with the Manmoel VILL. It is anticipated that the size,

scale, visual prominence, dominance and industrial form of the turbines would have a negative impact on the designations.

- 70. Visual effects It has been determined that views in the direction of the site from receptors in settlements are generally medium to high value with all having a high sensitivity with residents in particular having a high susceptibility to change. As to be expected, the magnitude of change experienced would range from zero to high with the impact experienced affected by intervening landforms, buildings, tree or vegetation cover, the overall orientation of the settlement and dwellings and elevation. In conjunction with the above factors the level of effect would range from no effect to major. Out of the 11 settlements that are within BGCBC, the effect would be not significant for four (36.3%); potentially significant for 1 (9.09%) and significant for 6 (54.54%) with the nature of the effect being long-term (reversible) indirect and adverse. It is therefore anticipated that the impact of the proposal would be negative.
- 71. Residential Visual Amenity Assessment (RVAA) The submitted RVAA concludes that the proposed development would not have an overbearing effect or otherwise affect the living standards of individual properties such that any of these would become an unattractive place to live (as opposed to less attractive) when judged objectively. However, given the number of receptor dwellings in the study area, the density of occupation in conjunction with location specific environmental, topographical and social conditions, it is anticipated that the impact of the proposal would be negative.
- 72. Visual effects from promoted long-distance footpaths and cycle routes:
 - With regard to the two long-distance, promoted footpaths which run through the BGCBC area, it has been determined that the views in the direction of the site are high and are subject to high sensitivity. As a resulting of intervening landform and screening provided by vegetation the magnitude of change would range from zero to high with the resulting level of effect ranging from no view to major and significant. The nature of the effect would be long-term (reversible), indirect and neutral to adverse. Given the known and perceived vulnerability of users and the scale of the development, it is anticipated that the impact of the proposal would be negative.
 - In terms of the national cycle routes, it is determined that cyclists have a high susceptibility to change. Views in the direction of the site are deemed to be medium value with a high sensitivity and a magnitude of change ranging from no change to high, for selective sections. The resulting level of effect would range from no effect for the majority of the routes to major and significant for a 0.7km stretch along one route. The nature of the effect would be long-term (reversible), indirect and adverse. Given the modest length of the paths subject to major and significant effects, on balance the anticipated impact is considered neutral.
- 73. Assessment of visual effects from Historic Parks and Gardens, Golf Courses, Country Parks, PRoW, and Open Access Land:
 - Users of Brynbach Parc have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium to High value resulting in an overall High sensitivity. The magnitude of change would range from Zero to Low and the resulting level of effect would range from No View to Moderate and Not Significant given the limited and restricted nature of views from the park. The anticipated impact is therefore likely to be neutral.
 - In terms of designations within 5km of the site it is noted that a large proportion of the upland land landscape to the north and east of the Site, above the settlements in the valleys is designated as open access land and also contains a high density of PRoW.
 Users of the open access land have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium to High value resulting in an

overall High sensitivity. The magnitude of change would range from Zero to High. The resulting level of effect would range from No View to Major and Significant. The nature of the effects experienced by users of the open access land would be long-term (reversible), indirect and neutral to adverse. The anticipated impact of the proposal is therefore likely to be negative.

- With regard to designations within 5-10km of the site the applicant's submission details that a proportion of the upland landscape to the north and west of the Site is designated as open access land that falls within the Zone of Theoretical Visibility (ZTV). Users of the open access land have a High susceptibility to change and the views in the direction of the Site are assessed to be of Medium to High value, resulting in an overall High sensitivity. Locations within the County Boundary where the Proposed Development would be clearly visible with hub visibility include, Mynydd Bedwellte and Rhymney Hill. At these locations, the magnitude of change would range from Zero to Medium or High/Medium. The resulting level of effect would range from No View to Major or Major/Moderate and Significant. The nature of the effects experienced by users of the open access land would be long-term (reversible), indirect and neutral to adverse. The anticipated impact of the proposal is therefore likely to be negative and significant.
- Of the locally promoted walking routes assessed within 5km it is noted that the walkers on the routes have a High susceptibility to change and the views in the direction of the Site are assessed to be of High value resulting in an overall High sensitivity. The magnitude of change would range from Zero up to High where less restricted views are available. The resulting level of effect would range from No View to Major with 90 of the routes experiencing a significant impact. The nature of these effects would be long-term (reversible), indirect and neutral to adverse. The anticipated impact of the proposal is therefore likely to be negative.
- With regard to the Transport Routes (A and B roads) assessed that fall within the County Boundary, it is noted that users would have at worst a medium susceptibility to change with views in the direction of the site.
- 74. The subsequent SoCG with BGCBC details the matters that remain in dispute. Specifically with reference to landscape character and visual impact, the following continues to be in dispute:
 - (i) The weight to be given to landscape effects upon the SLAs and VILLs;
 - (ii) The effect on the visual amenities of residents given the number of receptor dwellings in the study area and the density of occupation in conjunction with location specific environmental, topographical and social conditions; and
 - (iii) The assessment of cumulative effects.
 - (iv) The overall impact on PRoWs, albeit the wording of the planning condition which seeks to protect PRoW is agreed by both parties.

Biodiversity

- 75. Lesser horseshoe bats and roost sites as a result of lower recorded levels of activity and lower collision risk of the species, it is anticipated that the impact on the lesser horseshoe bats could be neutral. It is agreed that the magnitude of change on the Usk Bat Sites SAC would be negligible.
- 76. Common pipistrelles, soprano pipistrelles and noctule bats these species are considered high collision risk and likely to experience increased mortality as a result of barotrauma. Four of the turbines are considered as high risk for collision. There is no evidence of the formula detailed in Natural England Technical Information Note TIN051

being used to calculate the recommended 50m buffer between tip of blade and linear feature. It is therefore considered that the location of 6, 7, and 8 fails to meet the minimum required distance. Insufficient information has been submitted to justify and determine the location of the turbines. In the absence of such information, it cannot be ruled out that the development would not result in a negative impact on the population of protected species within the site. As a result of the proximity of the turbines to the hibernation and summer day roost for pipistrelles, the high levels of recorded activity and the high collision risk of the species, it is anticipated that the development would have a negative impact on the population of protected species within the site.

- 77. SINCs- it is anticipated that the proposal would have no effect on the integrity of the conservation status of the SINCs with the scale of impacts being anticipated as not significant. Given the mitigation and compensation measures proposed there is the opportunity to enhance the ecosystem resilience of the designated SINCs. Areas of heathland should also be restored to improve connectivity of this habitat. It is therefore anticipated that the proposal would have a positive impact in this regard.
- 78. Cumulative effect the proposal should take into consideration in combination of the likely significant effects with other proposed wind farm schemes. As a result, concerns are raised that in combination, this may have a detrimental impact on protected species; especially schedule 1 bird species which have been recorded on site. If all potential windfarms were in operation, this would result in scale of magnitude change, resulting in long term negative effects through habitat fragmentation, increased collision risks and direct effects upon local population sizes. Therefore, the cumulative impact would be negative and further consideration is needed in the absence of this information.
- 79. The SoCG identifies the matters that remain in dispute as:
 - (i) Whether sufficient information has been submitted to conclude that the development would not result in a negative impact on the population of protected species within the site.
 - (*ii*) Whether the assessment of cumulative effects, in particular in relation to schedule 1 bird species, is robust given the availability of date in respect of other large scale windfarm proposals.

Highways

- 80. There are no existing highway safety issues that would be exacerbated by the vehicle movements associated with the construction of the proposed wind farm. The information supplied is sufficient and no objection is raised to the proposal subject to conditions requiring the submission of a Construction Traffic Management Plan.
- 81. It is considered that the development would have a neutral impact upon the highway network and upon highway and pedestrian safety.

Noise

82. The conclusions of the submitted Noise Impact Assessment, using government approved guidance ETSU-R-97 and the Institute of Acoustics Good Practice Guides, are considered to be robust. As such, it is anticipated that subject to the imposition of mitigation to control the effect on the one location, the proposal would have a neutral effect.

Shadow Flicker

83. The shadow flicker assessment comprises a numerical modelling of the proposed turbines and receptors within the defined study area. Based on the detailed results of

the model, receptors 1, 2, 3, 6, 7, 9, 10 11, 12 and 14 would not experience any shadow flicker as a result of the development.

- 84. The remaining 10 receptors would experience between 11.2 and 59.8 hours of shadow flicker per year, based on the worst case model.
 - Receptor locations 4, 5 and 8 are rural and could experience between 11.2 and 12.9 hours of potential shadow flicker per year. The effect is therefore deemed to be low and not significant.
 - Receptor location 8 is again rurally located and set slightly higher than the base location of turbines 6, 7 and 8. The receptor could experience up to 59.8 hours per year of potential shadow flicker. The effect is therefore deemed to be medium and significant.
 - Receptor locations 15, 16, 17, 18, 19 and 20 are located within one of the most densely populated areas of the Borough and could experience up to 57.1 hours of potential shadow flicker per year. This effect is deemed to be medium and significant.
- 85. In order to mitigate the impact of the effect on receptor locations 8, 15, 16, 17, 18, 19 and 20, it is proposed that a control system/ module be installed which can be programmed to shut down the wind turbine to restrict effects to less than 30 minutes per day and / or 30 hours per year at any property. Once this mitigation is taken into consideration the effect is deemed to be low to medium in magnitude and not significant.
- 86. It is therefore concluded, subject to conditions requiring the control module to be installed in order to limit the potential shadow flicker effect, the anticipated impact of the development would be negative but not significant.

Contamination

87. The submitted Phase 1 Geo Environmental Desk Study is sufficient and the recommendation that a Phase 2 Intrusive Geo Environmental Ground Investigation is carried out is supported. Standard conditions with regards to unforeseen land contamination are recommended. In light of the reports submitted and conditions recommended, it is anticipated that the issues and impacts relating to land contamination would be neutral.

Ground Conditions and Stability

- 88. The submissions acknowledge that that there is a need for further intrusive investigations to allow the potential subsidence risk to be better understood, to clarify the extent or form of remediation that may subsequently be needed and to inform the form and scale of the foundation system for each turbine. It is suggested by the applicant that this information be secured by condition.
- 89. Mindful of known subsidence and movement within the area, fissures and fault lines within the site which are exacerbated by freeze-thaw and hydrological movement, in conjunction with areas of made up ground and the underlying sandstone bedrock, it is considered that this information and detail should be presented for consideration and review prior to determination of the application.
- 90. Thus, insufficient information has been supplied to allow a full assessment to be made of the construction, the potential effect of operational vibration and any remediation required to mitigate the risks of adverse stability within the site and wider area. Given the proximity of the proposal to densely populated urban areas, it is anticipated that the development could have a negative and significant impact.

Minerals

- 91. The micro-siting of turbine 6 and the internal site access serving turbines 1-5, would be within the 200m buffer zone around the Preferred Area (areas of known mineral resources with some commercial potential and where planning permission might reasonably be expected). Whilst it is acknowledged that the micro siting of turbine 6 could be restricted to prevent encroachment, concerns are raised regarding the potential to relocate the access as a result of the topography.
- 92. Consequently, it is considered that the application has failed to acknowledge the mineral resources designations or demonstrate the impacts the proposal would have on the designation and its potential future working. Given the close proximity of the turbines and primary access route to the defined allocation and within the buffer zone, it is considered that insufficient information has been submitted to demonstrate that the proposal would not have an unacceptable detrimental impact. Concerns are raised that the proposal would have a negative, prejudicial and sterilising impact on the extraction of the resource.

Cultural Heritage and Historic Environment

- 93. Whilst there are no designated historic assets located within the site boundary, there are designated historic assets within the wider study area; these consist of five Scheduled Monuments, nine listed buildings, one registered historic landscape and one World Heritage Site located within 1-5km of the site that are subject to potential effects on their settings. There are also eighteen records of non-designated historic assets located within the site boundary.
- 94. It is anticipated that the proposal would have a neutral impact on the majority of cultural heritage and historic assets within 5km of the site. Although it is considered that the proposal could have a negative impact on historical assets of local importance, this would be not significant in scale relative to the wider historical environment.
- 95. In terms of historic environment matters, the SoCG identifies that the effect of the proposal on the archaeological resource requires consideration following the receipt of a response from GGAT.

Socio-economics

96. The proposal would have an impact on the existing PRoWs whilst also noting that any diversion would be pursued separately with BGCBC at a future date. It is also likely that the operational use of the site would negatively impact on Bridleway users in the long term. It is requested that consideration be given to the advice provided within the British Horse Society publication - Wind Turbines and Horses for Riders and Carriage Drivers. Whilst mindful of embedded environmental measures and arrangements that could be implemented, it is anticipated that the overall effect of the proposal would be negative.

Renewable Energy

97. It is noted that the proposed development is for a wind farm of up to 34MW which is equivalent to providing enough power to meet the annual electricity needs of approximately 21,100 homes. By way of comparison, the BGCBC area is estimated to have 31,371 households as of 2020 (Stats Wales, 2021c). Accordingly, having regard to FW, it is considered that this proposal would have a positive effect on meeting identified targets for Renewable Energy.

Cumulative Effects

98. The proposed development is located within 3.1km of three proposed Developments of National Significance (DNS) wind farm applications which are at pre-application

consultation phase – Mynydd Llanhilleth wind farm (12 turbines), Abertillery wind farm (7 turbines), Manmoel wind farm (5 turbines) – and within 10km of 5 consented wind turbines and one 1 turbine proposal at the planning application stage. At the time of EIA scoping consultation comments (May 2021) BGCBC had not been aware that there are at least a further three potential applications for DNS windfarms in or adjacent to the southern part of the authority.

99. When reviewing the proposal relative to operational windfarms, consented turbines plus those within the planning and scoping stages plus the landscape sensitivity which is classified as high due to its undeveloped condition and lack of existing turbines within the landscape unit, it is anticipated that the cumulative impact would be negative.

Consultation Replies

Responses were received from interested parties, including WG, Dŵr Cymru / Welsh Water (DCWW), Cadw, NRW and the Coal Authority in respect of the initial DNS public consultation exercise. However, following the submission of Further Information, interested parties were re-consulted. The main points raised in relation to the scheme in light of the Further Information are summarised below.

NRW

- 100. NRW continues to express concerns in respect of the proposal's impact on landscape character and visual amenity notwithstanding the submission of Further Information. It therefore states that additional information should be sought from the applicant regarding these matters. In particular, the following concerns are raised:
 - Based on its own on-site assessment using the photomontages, NRW agrees with the LVIA where it assesses the visual impact at Viewpoint 17 as significant (moderate/major adverse). However, it advises that the magnitude of change to the sense of tranquillity within parts of Landscape Character Area (LCA) 9, which is related to the visual impact, would be greater than assessed in the LVIA. It would also result in a medium magnitude of change to sensory and perceptual qualities within LCA 9 and these impacts would result in a major/moderate adverse effect, and would be significant.
 - Turbine 1 would continue to be the most prominent turbine when viewed from certain locations within BBNP. At Viewpoints 20, 22 and 23, given the sensitivity of the location, the stacking of the turbines and the scenic quality of the existing view, which features a wide expanse of open plateau intersected with valleys, the effect would be significant.
 - The development's effects would detrimentally alter the public's experience of the BBNP's character and special qualities in these areas. Whilst at locations such as Viewpoints 17, 20, 22, and 23, the development would occupy only a limited proportion of the view, the visual effects identified at these locations would be significant and in turn would erode sensory and perceptual qualities within the applicable LCAs and interfere with people's enjoyment of the landscape.
 - A visual change at night would also contribute to the erosion of the perceptual qualities of the BBNP.
 - Opportunities should be explored to avoid and or mitigate the development's effect on the BBNP including by removing Turbine 1 which stands most exposed in the landscape at different viewpoints within BBNP.

- 101. Based on the information submitted to date, conditions dealing with land contamination (ground water protection), pollution protection, ornithology and European Protected Species should be attached to any planning permission granted.
- 102. The subsequent SoCG with NRW details the matters that remain in dispute, which relate to:
 - (i) the effects upon the BBNP;
 - (ii) the wording of a planning condition in relation to turbine curtailment;
 - (iii) a requirement to amend the Phase 1 Geo environmental Desk Study to include ground water monitoring and sampling; and
 - (iv) a requirement to amend section 4.4.2 of the Construction Environment Management Plan to include risk to ground waters.

The Coal Authority

- 103. It is noted that the submission is now supported by a Phase 1 Geo-environmental Desk Study, dated May 2023. Section 5 of the report concludes that past coal mining activity poses a potential risk to the proposed development. The report authors go on to recommend that intrusive site investigations are carried out on site to establish the exact situation in respect of the coal mining features present and to inform the design of any necessary mitigation works to allow the development to proceed safety.
- 104. It is therefore recommended that conditions are imposed on any consent granted to ensure that these investigatory works, and any measures necessary to ensure the safety and stability of the project, are carried out prior to development commencing in those areas identified at being at risk from past coal mining legacy.

Arqiva

105. Turbine 8 would be positioned within the 100m buffer either side of a radio link (which must be kept free from interference). Having regard to the proposed micro-siting condition on any planning permission granted, if Turbine 8 were to be positioned 50m in a NNE direction on a bearing of 10-15 degrees from its current position, this would be sufficient to overcome Arqiva's concerns.

BGCBC Highway Authority

106. The Abnormal Indivisible Load (AIL) Access Study proposes two possible routes for delivery of AIL's. It is noted that from the submitted Swept Path Analysis drawing 'Pinch Point 11' that an area of overrun is required to be temporarily constructed over an embankment to the south-west of the roundabout. The applicant is advised that this embankment is not deemed as public highway verge, it is within third party ownership.

Network Rail

107. Network Rail would wish to see such equipment sited so that the lateral distance from railway boundary to foot of mast is greater than height of mast plus length of propeller blade. Should the turbines collapse for any reason then the developer should ensure that any fail-safe distance will include the wind-turbines potential for topple in the direction of the railway line.

Cadw

108. Concurs with the conclusions in the ES that the proposed development would not have a significant adverse effect on the assessed designated heritage assets.

- 109. The adverse impact on the St Illtyd Caste Mound is caused by the change to its setting. This is assessed as a low impact on a heritage asset of high value which would have a moderate impact, potentially rising to a major impact when the cumulative effect of other proposed windfarms in the area are considered.
- 110. A series of offsetting measures are proposed to compensate for the adverse impact on this Scheduled Monument. It is considered that the offsetting measures are appropriate and would provide suitable compensation.

WG Transport

- 111. Detail needs to be provided to prove access for transporting AILs is achievable from the point of entry to the Welsh trunk road network to the point of egress, that minimises any impact on the safety and free flow of trunk road traffic.
- 112. The existing information appears to be missing the swept path analysis drawings, which should detail swept paths of the worst case AILs at all potential horizontal and vertical constraints along the access route.
- 113. Concerns are raised regarding the use of Route 2 for abnormal loads, specifically the unsuitability of the A4042 at the bridge over the River Usk, north of Llanellen.
- 114. Standard planning conditions are recommended in relation to structural assessment, condition surveys, liability for incidental damage, traffic management plan, road safety audit and a Section 278 Agreement.

GGAT

115. No objection to the proposed development subject to a condition requiring the applicant to submit a detailed written scheme of investigation, for the implementation of a programme of archaeological work to protect the archaeological resource.

Other Representations

- 116. JRC Ltd has advised that it does not object to the proposal in assessing its potential to interfere with radio systems operated by utilities companies. DCWW confirms that there are no assets in the location specified that rely on 'point to point' communications that would be affected by the proposed development.
- 117. Several local residents and the Ward Member for Abertillery & Six Bells raise concerns with regard to:
 - The challenging and technical nature of the submitted documents and flawed consultation process,
 - Lifetime of the development,
 - Impact on landscape character and visual amenity,
 - Effect on ecology,
 - Construction related traffic congestion issues,
 - Impact on health, wellbeing and living conditions arising from traffic, shadow flicker, noise and light pollution,
 - Flooding,
 - Impact on sustainable tourism and alteration of established bridleways and trails,
 - Land instability, ground conditions and land contamination,
 - Cumulative effects with other wind farm developments.

- Impact on the existing solar farm, which would be impacted by shadow and shadow flicker of the wind turbines. Mitigation would render the site inoperable for many hours each day, making electricity generation unviable and loss making.
- Community funding using any money from a development that impacts communities is not acceptable.
- Manufacturing of wind turbines is inherently unsustainable and environmentally damaging.

Appraisal

118. The main considerations are:

- the effect of the proposed development on landscape character and visual amenity;
- the effect of the proposed development on historic assets;
- the effect of the proposed development on ecological interests;
- the effect of the proposed development on the living conditions of the occupiers of neighbouring residential properties, having particular regard to noise and shadow flicker;
- the effect of the proposed development upon traffic flows and highway safety, particularly through the construction phase; and finally,
- whether any identified harm in respect of the above matters would be outweighed by the benefits and other matters in favour of the scheme, particularly the in-principle policy support for large scale wind farm development and the contribution towards renewable energy generation.

Character and Appearance

Landscape character

- 119. The ES includes a Landscape and Visual Impact Assessment (LVIA), which has been prepared in accordance with the Guidelines for Landscape and Visual Impact Assessment 2013 and the LANDMAP methodology 2016. It is informed by a Zone of Theoretical Visibility (ZTV) which is based upon the topography across the local landscape and defines the area within which to assess the potential significant landscape and visual effects. These maps are supported by a series of representative viewpoints for which photomontages depicting the appearance of the scheme have been prepared, with additional viewpoints having been requested by NRW and subsequently prepared in order to inform the assessment.
- 120. The LVIA has assessed the construction, operational and decommissioning phases of the development. I accept that the construction and decommissioning phases would, at certain times, have a greater impact than during its operation. However, as construction and decommissioning are likely to be relatively short-lived, I have focussed mainly on the operational period of the project.
- 121. The site is located on the southern end of the north/south orientated ridgeline that separates the valleys occupied by the Ebbw Fawr river to the west and the Ebbw Fach river to the east. The land-use of the more elevated section of the ridgeline that extends northwards is mainly unimproved upland moorland with an absence of field boundaries which extends some of the northern and central parts of the site east of Cwm Big including a substantial area that is used for motorbike scrambling. The more southerly and westerly parts of the site are characterised by improved and semi-improved grazing

land and a distinctive angular shaped field pattern. Field boundaries are mainly stone walls and isolated lengths of beech hedgerow that are overgrown.

- 122. The site is located within National Landscape Character Area (NLCA) 37: South Wales Valleys. This covers an extensive upland area dissected by deep, urbanised valleys. The LANDMAP evaluation of the aspect areas within which the site is located would be 'significant' in relation to indirect effects on 11no. Visual and Sensory Aspect Areas and 3no. Historic Landscape Aspect Areas.
- 123. Turning to the Bannau Brycheiniog National Park (BBNP), which lies partly within the study area. The '*Brecon Beacons National Park Landscape Character Assessment*' defines 15 Landscape Character Areas (LCAs) within the BBNP, six of which fall within the ZTV, including LCA 9: Mynyddoedd Llangatwg and Llangynidr. I agree that potential effects on these landscapes would be limited to indirect effects on the key visual or perceptual characteristics of these landscapes resulting from views of wind turbines.
- 124. Although the ES concludes that there would be no significant effects upon the BBNP, NRW disagrees with this position insofar as it considers that the development would conflict with advice in PPW concerning the conservation and enhancement of natural beauty within the Park and the public's enjoyment of its special qualities, as demonstrated by Viewpoints 17, 20, 22 and 23 in the main. In the Hearing Statement for Hearing Session 1, the applicant draws my attention to the Arup Study that informed the definition of the PAA areas. In short, notes from the workshop with NRW state that it considered the northern part of the area to be more appropriate for wind and solar 'due to the fact that this landscape has undergone significant changes in the past due to deindustrialisation and therefore may be more adaptable to change'. The visibility mapping from the BBNP indicates that the site of the proposed development would be within the lowest of five visibility bands, i.e. turbine options at both 150m and 250m tall would only be visible from between 1% to 25% of the BBNP. The area that subsequently formed PAA 10 incorporates a substantial buffer to the BBNP, in excess of 4.5km at its closest point and the northern limit of the PAA set to the south of the towns of Rhymney and Ebbw Vale. The applicant drew my attention to the siting of the proposed turbines some 2km further south of the northern limit of PAA 10, and over 8km from that part of the BBNP that lies within the ZTV at the closest point.
- 125. At hearing session 1, the applicant further asserted in oral submissions that the geographical extent, as well as the size or scale of change, should be considered as part of the magnitude of change judgement in assessing the effect on the setting of the BBNP. The applicant went on to argue that landscape effects occurring over a larger geographical extent and a higher proportion of a landscape designation are more likely to be regarded as significant. Based on my understanding of the written evidence, the oral submissions (including NRW's oral response at the Hearing) and my site visits, I am of the opinion that the proposed development would affect only a small part of the overall visual experience gained from within this landscape, and it would be experienced as part of much wider panoramas in which existing vertical structures beyond the National Park boundary are present. Whilst I accept that the proposal would lead to a slight dilution of the baseline levels of tranguillity and remoteness. I do not find that it would significantly alter the distinctive characteristics or the key perceptual and visual characteristics of LCA 9. In this context, I do not consider that there would be any significant effects on landscape character within the BBNP or its setting, or any significant effects on the special gualities of the designation.
- 126. Turning to NRWs concerns regarding the night-time view at Viewpoint 17, which it considers would likely include the same people who would experience a moderate/major adverse visual effect in the daytime, and that a visual change at night would also contribute to the erosion of the perceptual qualities of the BBNP. From my

understanding of the submissions, the Special Qualities in this respect relate to "dark night time skies", noting that the hub height ZTV includes a small proportion of the BBNP core dark skies area designated in the '*Brecon Beacons National Park, International Dark Sky Reserve External Lighting Management Plan*'. I accept that the aviation warning lights would contribute to a distant effect on the night-time views. However, to my mind, they would appear as very small, points of light appreciated in the same field of view as the brightly lit valley conurbation of Brynmawr even though I acknowledge that there are currently no light sources on the upper slopes or ridgeline in the field of view that would be affected by the development. Be that as it may, given a separation distance in the order of 8km, I do not consider that the visual presence of aviation lights would seriously alter or erode the Special Qualities of the BBNP.

- 127. At a local level, the application site is located within the Mynydd Carn y Cefn and Cefn yr Arail SLA, as designated in the LDP. The assessment concludes that there would be significant direct landscape effects on this SLA. Additionally, there would be significant indirect landscape effects on the Eastern Ridge and Mynydd James SLA, Cwm Tyleri and Cwm Celyn SLA, Cefn Manmoel SLA, St. Illtyd Plateau and Ebbw Eastern Sides SLA and the Manmoel VILL. I do not dispute that the proposed development has been designed so as to reduce the effects on these local landscape designations, including through the use of non-reflective pale grey on the rotor blades and upper towers. Nevertheless, I find that a significant effect would remain despite such measures.
- 128. I am mindful that paragraph 6.3.3 of PPW identifies a requirement to ensure statutory landscape designations are protected but also that opportunities for renewable energy are taken into account. It focuses upon landscape character and does not reference visual amenity. The statutory duty to have regard to National Park purposes including their setting is noted at paragraph 6.3.5 of PPW.
- 129. As set out previously, FW forms part of the development plan for the area and provides more up to date policy advice, specifically for DNS applications. As such, I must also have regard to the site's location within PAA 10 identified in FW, where WG has already modelled the likely impact on the landscape and has found it to be capable of accommodating development in an acceptable way. There is no compelling evidence before me to lead me to an alternative conclusion. That same policy also goes on to state that there should be a presumption in favour of large-scale wind energy development in these areas, subject to the criteria set out in Policy 18. For the avoidance of doubt, Policy 18 expressly omits any test in respect of landscape impacts for wind energy proposals located within the PAAs.

Visual Amenity

- 130. There is no dispute between the parties that a number of receptors would be likely to experience some form of significant effect as a result of the proposed development, including those at 16 settlements (Abertillery, Aberbeeg, Brynithel, Llanhilleth, Trinant / Pentwyn, Blaina, Markham, Swffryd, Crumlin, Nantyglo, Oakdale, Newbridge, Brynmawr, Bargoed, Hengoed and Cefn Hengoed), 9 designated long-distance footpaths, Sustrans National Cycle Routes NCR465 and NCR466, Country Parks, open access land and PRoW, together with locally promoted walking routes and transport routes.
- 131. Despite the applicant's contention that embedded measures have been incorporated to minimise effects, such as limiting the loss of hedgerow and woodland, the re-vegetation and reinstatement of grassland / scrub, the siting of turbines 1-5 as far west and southwest as possible and the selection of a non-reflective pale grey colour to minimise contrast, I am not persuaded that the visual impact would be less than adverse and significant for a number of visual receptors. For example, I consider that those receptors

in settlements within 2km of the turbines (such as parts of Abertillery, Aberbeeg, Brynithel, Cwm and Manmoel) would experience the most significant effects on visual amenity resulting from visibility and movement of the proposed wind turbines together with an effect on night-time views from the aviation warning lights associated with the introduction of proposed turbines on elevated land with some unrestricted views. Although I do not dispute that in some instances views would be restricted by dwelling orientation, intervening built form, topography and mature tree cover, I fully acknowledge the concerns of local residents most likely to be affected.

- 132. NRW has suggested that Turbine 1 should be omitted on account of it standing "most exposed in the landscape". I heard from the applicant that the removal of Turbine 1 would clearly have a negligible benefit insofar as is would be perceived as part of a coherent wind farm design, with turbines appearing as a discrete cluster that relate simply to the skyline, complying with best practice design guidance. In my opinion, Turbine 1 would appear 'exposed' from a small number of viewpoints but, owing to landform and topography, would read as part of the group in viewpoints from other directions. On this basis, I do not find that the omission of this turbine would, overall, alter the visual impact of the development in any meaningful way.
- 133. I also note NRW's concerns regarding the 'stacking' of turbines from Viewpoint 23. However, as this would tend to occur in longer distance views (in excess of 10km distant and experienced as part of a 360 degree panorama), I do not consider this issue to be a significant one.
- 134. A cumulative assessment has also been undertaken in order to evaluate the effects that could be generated were Mynydd Carn y Cefn Wind Farm to become operational together with some or all of the other wind farms that are either already operational, have been consented or are proposed, in a 28km radius study area. The assessment considers 66 wind energy developments within the cumulative study area. Two scenarios were assessed; Scenario 1 includes only operational wind turbines and those already consented while Scenario 2 adds those within the planning and scoping process. The ES concludes that the development would not result in significant cumulative visual effects in either scenario.
- 135. I have no reason to doubt the findings of the ES that, overall, there is no potential for the introduction of the proposed development to result in significant cumulative visual effects where these would not arise in relation to either Mynydd Carn y Cefn or one of the other included baseline wind farms alone in relation to either scenario.
- 136. Notwithstanding the above, on balance, I am of the view that the proposed development would be obvious in the landscape and have a significant visual impact when seen from sensitive receptors in existing settlements and users of long-distance footpaths, Sustrans Routes, Country Parks, open access land and PRoW. Although such impacts are almost inevitable given the site's location within a PAA on an elevated area of land, they would be long-term (albeit reversible) and adverse for those receptors affected.

Overall conclusion on character and appearance

- 137. I do not dispute that the applicant has sought to reduce the significance of the landscape and visual effects by incorporating mitigation measures that include the siting of turbines as far from the plateau edge as is possible, taking into account other technical constraints.
- 138. I have also had regard to BGCBC's concern that many of the large blocks of forestry that are a conspicuous landscape feature across parts of the LVIA study area are coniferous and are likely to be felled as commercial crops at some point. I therefore concur that there would be localised landscape and visual impact consequences,

including negative changes to the nature of views available to some visual receptors within the LVIA study area.

139. In this context, I accept that there would be an effect on landscape character and the impact on visual amenity would be significant, and thus in conflict with the aims of LDP Policies SP10, DM1, DM2 and ENV2. However, this must also be considered in the context of FW Policies 17 and 18, which clearly support wind farm development in PAAs. Hence, I must conclude that the proposal would be consistent with the thrust of the Development Plan overall to support wind energy development even though I recognise that there would be localised significant visual harm.

Historic assets

- 140. The application is accompanied by an Historic Environment Desk-Based Assessment and a Stage 1 Settings Assessment, which consider the likely significant effects of the proposed development on the historic environment, including archaeological remains, historic buildings and historic landscapes.
- 141. There are no designated features on site, albeit there are five Scheduled Monuments, nine listed buildings, one registered historic landscape and one World Heritage Site located within 1-5km of the site that are subject to potential effects on their settings.
- 142. Whilst Cadw concurs with the conclusions in the ES that the proposed development would not have a significant adverse effect on the assessed designated heritage assets, it recognises that a moderate impact on the St Illtyd Castle Mound Scheduled Monument would be caused by the change to its setting.
- 143. The ES identifies that this monument comprises the remains of a motte and ditch, dating to the medieval period, which is located immediately to the east of the medieval, possible pre-Conquest church of St Illtyd, which may be located within the former bailey. Beyond this to the east are the buried footings of 13th -14th century towers of Castell Taliorum. The relationship between motte, church and castle is uncertain, however, the ES confirms that there is group value between these upland early ecclesiastical and successive secular sites, which lie within the former Welsh lands of Gwynllwg and Senghenydd.
- 144. Based on the submitted evidence and my site visits, it is apparent that the proposed development would introduce turbines within approximately 1.65km of St. Illtyd's Castle Mound, which would be fully visible in views to the north across the valley of the Ebbw Fach River. It would thus affect, in part, the significance of the asset's setting. That being said, I accept that the proposal would not affect wide views in other directions or the relationship of the monument to St Illtyd's Church. I also do not dispute that the significance of the asset has already been affected by the construction of a modern farm immediately adjacent to the east of the monument and that mature trees screen the north-western side of St. Illtyd's Castle Mound, which is generally overgrown with vegetation. Taking all of these factors into account, and whilst I acknowledge that views are only part of the factors that determine the setting of St Illtyd's Castle Mound in this regard.
- 145. Given that the only historic asset which would be likely to be affected by the proposed development is this Scheduled Monument, a cumulative assessment has been undertaken which concentrates potential effects on its setting. This assessment considers potential effects with other operational, consented and proposed wind farms within 5km of the proposed development, including the proposed wind farms at Mynydd Llanhilleth (2km to the south-east), Abertillery (approximately 1.5km to the east) and Manmoel (3km to the north-west). The ES assesses that the proposed development, in

combination with other proposed wind energy developments, particularly Abertillery and Mynydd Llanhilleth wind farms, would result in a medium magnitude of change to the setting of St Illtyd's Castle Mound, resulting in a major effect, which would be significant. I concur that the cumulative impact of these developments would be to increase the arc in which turbines would be visible, particularly in prominent views across the valley to the north as well to the east, notwithstanding that the existing modern farm would offer a degree of partial screening. Hence, the effect would be adverse and significant.

- 146. Cadw suggests that measures to directly mitigate these effects are unlikely to be effective and that offsetting measures should therefore be considered. The parties agree that the impact of the proposed development on this Scheduled Monument could be offset by the preparation of the 'Monument Management Plan', as detailed in Appendix 7D of the ES, and which would identify measures for improving access, the provision of interpretation panels and management of the monuments during construction and operation.
- 147. I have had regard to the advice in PPW that 'Any change that impacts on an historic asset or its setting should be <u>managed</u> in a sensitive and sustainable way' (my emphasis). I am also mindful that the introduction of the suggested compensatory proposals would not reduce the impact of the development on the setting of the historic asset and cannot therefore be accepted as mitigation. However, I consider that the proposed compensatory measures should be factored into the planning balance in weighing the benefits of the scheme against the impact of the development on the setting of the setting of this asset. To this end, a condition is suggested requiring details of the compensation measures for St Illtyd's Mound in the event of planning permission being granted.
- 148. To understand the potential for and significance of archaeological remains on the site, a Written Scheme of Investigation: Desk Based Assessment has been carried out. Given the identified recorded archaeological remains possibly from the prehistoric period within the site boundary (Abertillery Round Barrow) together with further Bronze Age barrows in the study area to the north of the site, it has been concluded that there is a moderate potential for prehistoric remains in localised areas of the site, of low-medium significance. In this context, a condition requiring a written scheme of historic environment mitigation would ensure that any features of archaeological interest discovered during construction works is identified, recorded and mitigated.
- 149. In light of the above, the proposal would cause a degree of harm to the setting of a designated heritage asset. However, in light of the temporary and reversible nature of the development, I conclude that it would represent a minor conflict with FW Policy 18 and LDP Policy SP11.

Ecology

150. The site is dominated by semi-natural and heavily modified habitats including improved grassland, species poor semi-improved grassland and semi-improved acid grassland, dry heath/acid grassland and areas of continuous bracken. There are a large number of mature trees scattered throughout the grassland and along the field boundaries, together with semi-natural broad-leaved woodland present on the north-west and south-east boundaries of the site, generally with a very bare or bracken dominated understorey and high canopy dominated by beech trees, with oak, hawthorn and silver birch scattered occasionally. The site habitats are not particularly notable examples, with their condition heavily influenced by historic and current agricultural practices (drainage, grazing, etc.). The Unified Peat Map of Wales showed no peat deposits on the site and the absence of deep peat was confirmed by a peat survey in 2021.

- 151. I have already set out in the HRA section of this Report my reasons for concluding that the proposed development would not, either alone or in combination with other projects, have a likely significant effect on the integrity of any of the European designated nature conservation sites.
- 152. In terms of the national context, the ES confirms that there would be a negligible effect on the Cwm Merddog Site of Special Scientific Interest (SSSI), due to the distance and absence of reasonable impact pathways. Additionally, there would be no permanent or temporary land-take or changes to Ancient Woodland habitats from the proposed development nor permanent loss or deterioration of ancient woodland associated with the grid connection. Within the site boundaries there are 9 non-statutory Sites of Nature Conservation Interest (SINCs), with no significant effects having been identified subject to embedded measures to ensure that effects would be prevented or appropriately managed, where necessary.
- 153. As such, and in the absence of evidence to the contrary, I conclude that there would be no effect on the features for which the SSSI has been designated and no significant effect on the Ancient Woodlands as an ecological feature of National importance. Neither would there be significant effects on the SINCs subject to the measures identified in the submitted Habitats Management Plan (HMP) and Construction Environmental Management Plan (CEMP), which would be secured by condition.
- 154. The surveys have identified at least seven bat species or species groups recorded at the site with five roosts identified within the survey area. The ES considers it likely that the proposed wind farm would affect the use of the site by bat species (other than the Lesser Horseshoe bat which is a qualifying feature of the Usk Bat Sites/ / Safleoedd Ystlumod Wysg SAC) and would increase the mortality risk for bats locally, particularly common pipistrelle (this being by far the most frequently recorded bat on the site). However, the ES concludes that such changes would not have any significant effects on local bat populations due to the embedded measures incorporated in the proposed development. Subject to a planning condition that seeks to deal with the curtailment and cessation of turbines, which is dealt with later in this Report, it is reasonable to conclude that the impact on bat species would be minimised.
- 155. In terms of ornithology, the site supports two distinct breeding bird communities associated with grassland/moorland habitats and woodland habitats respectively with the birds recorded as potentially breeding within the site including common crossbill, goshawk, peregrine, red kite and barn owl. The ES confirms that measures would be adopted to minimise disturbance to bird habitats during construction, including the adoption of buffer zones and work schedules to avoid sensitive areas and times of year. I am therefore satisfied that such measures, secured by conditions, would ensure there would not be any long-term change in breeding bird populations, and no significant effects.
- 156. A collision risk modelling exercise has been undertaken to understand the risk of birds colliding with turbine blades once operational. The exercise concluded that there would be a negligible impact on bird populations given the dimensions of the turbines, the heights at which the birds recorded on site typically fly, and population densities of the birds. Whilst no significant effects are anticipated, a condition requiring the results of monitoring reports as set out in Section 2.2 of the submitted Construction Mitigation Monitoring Strategy, together with any mitigation measures, would ensure the protection of species listed under Section 7 of the Environment Act (Wales) 2016 and those listed on the Red List (Birds of Conservation Concern Wales) throughout the construction and operational phases. Additional measures developed for the site as part of the HMP are expected to benefit breeding species and more than compensate for temporary

disturbance during construction and permanent loss of habitat during the operational phase.

- 157. BGCBC raised concerns regarding the cumulative assessment of ecological and ornithological effects in relation to the assessment of other DNS projects, in particular citing "...at least a further four potential applications for DNS windfarms in or adjacent to the southern part of the authority". The applicant confirmed that three of the five additional DNS applications referred to by BGCBC had been assessed as part of the cumulative assessment in Chapters 8 and 9 of the ES. Of the two that had not been assessed, Twyn Hywel Wind Farm is located outside of the 10km buffer applied for the assessment of ecological and ornithological cumulative effects, and was not considered relevant. The project which had not been included within the assessment was Mynydd Maen Wind Farm. However, at the time of the request for Further Information no detailed information in relation to bat survey results or Collision Risk Modelling (CRM) for ornithology receptors had been completed for Mynydd Maen given that it was at scoping stage. As such, it could not be used to inform or update the cumulative assessment of effects provided within this ES.
- 158. Disagreement remains as to the outcomes of the cumulative assessment, with BGCBC confirming in oral submissions at Hearing Session 3 that it remains concerned with the conclusions of the assessment of cumulative effects particularly with regard to Schedule 1 bird species, even though it was accepted that the other large scale wind farms are in early stages of planning and thus have not prepared individual CRM in order to serve any useful purpose in assessing cumulative effects. Rather, despite acknowledging that the applicant had carried out a robust assessment on the basis of the information that was available to-date, BGCBC continued to argue that if all proposed DNS wind farms were in operation, cumulative effects would be negative.
- 159. In my opinion, the applicant has carried out a cumulative assessment in accordance with the Planning Inspectorate's Advice Note Seventeen, dated August 2019, which provides helpful guidance regarding the format and content of cumulative effects assessments as relevant to nationally significant infrastructure projects. In particular, I note the advice contained therein that '*The assessment should be undertaken to an appropriate level of detail, commensurate with the information available at the time of assessment*'. Moreover, it lists criteria that may be used to indicate the certainty that can be applied to each 'other existing development and/or approved development', with the criteria assigned in tiers which descend from Tier 1 (most certain) to Tier 3 (least certain) and reflect a diminishing degree of certainty which can be assigned to each development. It recognises that '...there is a decreasing level of detail likely to be available as you go from Tier 1 to Tier 3'.
- 160. In light of the above, I am satisfied that a comprehensive assessment of the potential effects arising from the proposed development and other known projects based on currently available information has been carried out. Although I do not dispute that there is limited information available in relation to projects at the early stages, such as those where no planning application has been submitted but a request for a Screening Opinion has been made, such projects would need to prepare their own cumulative assessments in due course which would take into account the scheme before me and others where the impacts have been more comprehensively assessed. Furthermore, other consultees including NRW have not raised concerns regarding the methodology for the cumulative assessment and are in agreement with the cumulative conclusions of Chapters 8 and 9, as confirmed in the SOCG.
- 161. Given that the proposed development would not have an adverse effect on the integrity of internationally designated sites or unacceptable adverse impacts on national statutory designated sites for nature conservation, protected habitats and species, and it

would secure biodiversity enhancement measures to provide a net benefit for biodiversity, it would be consistent with the aims of FW Policy 18. It would also align with the principles outlined in PPW, which identifies the planning system's key role in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms would be in place to both protect against loss and to secure enhancement, not least through the imposition of conditions. Additionally, the objectives of PPW and the requirements of FW reflect the duties set out in the Environment (Wales) Act to incorporate biodiversity enhancement measures in addition to necessary ecological mitigation and compensation, in order to achieve a net gain to biodiversity interests of a site. I therefore consider that the proposal is consistent with the aims of national and local planning policy in this regard.

Noise

- 162. An assessment of noise effects has been undertaken in accordance with the ETSU-R-97 Guidance 'The Assessment and Rating of Noise from Windfarms' and 'A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise' by the Institute of Acoustics ("the ETSU Guidance").
- 163. The ES finds that noise from construction and decommissioning of the proposed development would be minimal. Nevertheless, I concur that the implementation of general good-practice noise control measures (such as the use of silencers, mufflers and/or acoustic hoods on machinery) during construction and decommissioning would ensure no significant effects on receptors. Such measures could be secured through the imposition of Condition 18 requiring details of a CEMP.
- 164. An assessment of the acoustic impact from operation of the proposed development has been undertaken, taking into account the identified nearest residential properties. Operational noise levels would lie within the noise limits set by the ETSU Guidance during day-time and night-time, apart from one receptor where minor exceedances of 0.3dB and 0.5dB would be experienced at certain wind speeds during the day-time (the survey results show compliance at all receptors during the night-time period). In terms of cumulative impacts, exceedances of 0.5 to 1.9dB are predicted at certain wind speeds at one receptor in-combination with other existing and proposed wind farm developments (again at night-time, compliance is predicted at all receptors). In its LIR, BGCBC confirms that it considers the submitted Noise Impact Assessment to be robust and that subject to the imposition of mitigation to control the effect on the one location, the proposal would have a neutral effect.
- 165. Given the conclusions in the ES that there is likely to be an element of directivity in the turbine operation such that the affected receptor is not going to be downwind of all of the assessed wind farm sites at the same time, noise levels are likely to be lower than that predicted in the assessment in any event. Be that as it may, and whilst it is unlikely that mitigation would be required to reduce noise levels at the affected receptor due to the directivity of the effects, mode selection for the Vestas V150 (the candidate turbine) would reduce noise to below the identified limits without taking directivity into account.
- 166. Thus, the proposed development, with the identified mitigation in place, would not result in a significant noise effect subject to conditions controlling noise levels and securing mitigation in the event that noise limits are exceeded. I therefore find that the proposed development would not cause material harm to the living conditions of the occupiers of nearby residential properties by reason of noise impact. It would be compliant with the aims of FW Policy 18, the guidance in PPW and broadly consistent with the aims of LDP Policies DM1 and DM4.

Shadow Flicker

- 167. The applicant's study identifies that up to 20 properties have been identified which have the potential to experience some level of shadow flicker as a result of the operation of the wind farm. The ES states that the effect of shadow flicker can be resolved using standard mitigation measures such as a turbine control module which can control a specific turbine (or turbines) to shut down on specific dates at specific times when conditions are such that nuisance shadow flicker could occur.
- 168. Subject to an appropriately worded condition requiring the submission and approval of the details of such a mechanism, I am satisfied that there would be no unacceptable shadow flicker effects arising from the proposed development. Consequently, the proposed development would not cause material harm to the living conditions of the occupiers of nearby residential properties. It would therefore be compliant with the aims of FW Policy 18, the guidance in PPW and broadly consistent with the aims of LDP Policies DM1 and DM4.

Highway safety

- 169. The principal issue arising in respect of traffic and highway safety relates to construction traffic and the access route for abnormal loads. In response to WG Transport's query regarding the suitability of Route 2 for abnormal loads, specifically the A4042 at the bridge over the River Usk north of Llanellen, the applicant confirmed that Route 2 was provided as a secondary option and is not expected to be progressed. At Hearing Session 3, WG Transport confirmed that it does not take issue with Route 1 and, in such circumstances, there would be no need for a secondary route to be identified.
- 170. Additionally, BGCBC took issue with the mitigation identified at Pinch Point 11 (A467/B4471/A4046 roundabout). The applicant subsequently undertook a swept path analysis of this pinch point, using a blade lifter vehicle arrangement, which shows that the vehicle and blade can negotiate the junction without the use of the third-party land in contention, but subject to the temporary removal of street furniture and streetlights. The Highway Authority confirmed in oral submissions at Hearing Session 3 that such an approach was acceptable in principle.
- 171. Notwithstanding the above, and in order to reduce the potential for effects as far as is reasonably possible, I consider it necessary to require the details of traffic management measures in the form of a Construction Traffic Management Plan (CTMP). Whilst a draft CTMP has been provided as part of the submission documents, the final details would need to be secured through a planning condition.
- 172. Thus, subject to the imposition of appropriately worded conditions, I am satisfied that there would not be any unacceptable traffic or highway implications arising from the development. It would therefore be generally consistent with the aims of national and local planning policy relating to such matters.

Benefits

173. The development is estimated to produce sufficient energy to meet the annual electricity needs of approximately 21,100 homes over its operational lifespan. This represents a substantial contribution to the production of energy from a renewable resource and to the reduction in greenhouse gas emissions. Although I note the concerns of interested parties regarding the sustainability credentials associated with the manufacturing and disposal / decommissioning of wind turbines, the ES outlines a decommissioning approach that would be less environmentally damaging, including the retention of access tracks / roads for use by the landowner and that the turbine components themselves would be taken to an appropriate recycling facility where applicable. In any

event, the generation of energy from a renewable resource would be significant in the context of WG targets and its commitment to address the climate emergency. At a maximum output of 34MW, the proposed development represents almost a doubling of the installed capacity within Blaenau Gwent and would contribute to the achievement of the Welsh Government's target for 70% of energy consumption to be provided by renewable sources by 2030. It would also reduce CO₂ emissions going into the atmosphere by replacing that generated through fossil fuels.

- 174. The proposal would offer economic and social benefits. It would constitute a large investment in the region during the construction phase (estimated at £13m) and, as such, would provide both direct and indirect job opportunities, mostly associated with the construction phase but also in relation to the long-term maintenance and operation of the site. Other indirect benefits to the local economy are anticipated through an increased spend in bed and breakfast and other accommodation, together with the use of other local services and facilities, during the construction phase.
- 175. Overall, I consider it likely that the construction of the wind farm would have a moderately positive effect on the socio-economics of the area, given the potential for economic benefit to local construction firms, quarries, accommodation establishments and other local services.

Other Material Considerations

- 176. My attention has been drawn to known subsidence and movement within the area, fissures and fault lines within the site, in conjunction with areas of made-up ground and the underlying sandstone bedrock. Although a Phase 1 Geo-environmental desk study and a Coal Mining Risk Assessment have been carried out, the submissions acknowledge that past coal mining activity poses a potential risk to the proposed development and that there is a need for further intrusive investigations to allow the potential subsidence risk to be better understood, to clarify the extent or form of remediation that may subsequently be needed and to inform the form and scale of the foundation system for each turbine. It is therefore recommended that conditions are imposed on any consent granted to ensure that these investigatory works, and any measures necessary to ensure the safety and stability of the project, are carried out prior to development commencing.
- 177. The Phase 1 Geo-environmental desk study has also identified potential sources of land contamination on the site, including a former licensed landfill and other potential landfill areas, residual mine waste from onsite surface workings, made-up ground, historical farm operations including use of fuels/oils, agricultural chemicals such as pesticides, dilapidated farm buildings with possible asbestos content which may be released as asbestos fibres to ground, mine gas from former deep workings and ad hoc use of the northern area of the site for motorbike scrambling. Planning conditions to deal with the risks associated with contamination of the site and any unforeseen contamination are therefore recommended.
- 178. The application site is located within a Minerals Safeguarding Area, as defined in the adopted LDP. The LPA's concerns in its LIR relate specifically to the micro-siting of Turbine 6 and the proposed site access road, both of which would be within the 200m buffer zone around the allocated mineral resource preferred area. An additional assessment was subsequently carried out which concluded that the proposed development would not prejudice the potential extraction of minerals from the identified preferred areas. The SoCG confirms that parties are in agreement on this matter. In this context, I am of the view that the proposal would not conflict with LDP Policies M1, M2, M4 and DM19 to safeguard the County's mineral resource subject to the implementation of the relevant micro-siting condition.

- 179. Turning to aviation and telecommunications. Although a desk-based assessment informed the findings of the ES, and measures proposed to ensure no significant effects on aviation or telecommunications would arise, I note that at the time of its production further consultation was being undertaken with NATS/Cardiff Airport to identify any necessary measures to mitigate effects on radar. I am also aware of the concerns raised by Arqiva regarding the negative impact associated with the siting of Turbine 8 on their existing broadcast network, in particular, it being within the 100m buffer zone of the Abertillery to Rhymney link. However, I understand that conditions dealing with micro-sting and aviation lighting would overcome the outstanding concerns in respect of these matters.
- 180. Network Rail raised concerns regarding the siting of Turbine 8 insofar as it would be located near the railway boundary. Further information was subsequently submitted which Network Rail has confirmed addresses its concerns. I am thus satisfied an adequate distance from Network Rail's boundary would be achieved in the unlikely event Turbine 8 were to topple in the direction of the railway.
- 181. A number of PRoW cross the site, including three footpaths, a restricted byway and a bridleway. Two options have been identified in the ES for addressing the potential conflict with PRoW users, with the aim of ensuring that there would be no significant physical effects on these users. Although authorisation for the diversion of PRoW is to be pursued separately with BGCBC in the event of planning permission being granted, a condition is recommended requiring no development to take place until a scheme for the protection of PRoW during the construction and operational periods has been approved by the Local Planning Authority.
- 182. I note the concerns of interested parties regarding the effect of the development on flooding. I am satisfied that all potential sources of flooding have been considered, with surface water runoff due to increased areas of hardstanding posing the greatest potential flood risk. The submitted Flood Consequences Assessment concludes that the proposed development, together with the proposed flood risk management measures, would not be subject to an unacceptable level of risk, nor would there be potential increased flood risk elsewhere. Hence, the construction, operation and decommissioning of the proposed development is not expected to result in any significant effects on the water environment, provided that all recommended mitigation measures are put in place. Neither are cumulative effects with other developments anticipated.

Other Matters

183. Representations have been made by interested parties regarding the identification of the PAAs for wind farm development without any notable or significant public consultation. The basis on which the national policy position in relation to wind farm development was derived is not for this application, albeit FW (and the PAAs identified therein following further assessment) was developed with public engagement and consultation. In any event, and as noted earlier in this report, the site's location within a PAA does not mean planning permission has automatically been granted, but that there's a presumption in favour of large-scale wind energy development in these areas. The proposal has been assessed on its individual merits.

Conditions

184. I have considered the suite of suggested planning conditions, which reflects that agreed between the applicant, BGCBC and other interested parties. Having regard to the advice in WG Circular 16/2014: *The Use of Planning Conditions for Development Management* (October 2014) and with the exception of the conditions discussed below,

the wording of the majority of the conditions remains unchanged save for minor amendments.

- 185. At Hearing Session 3, and as confirmed in writing subsequently, WG Transport suggested that there is a need for additional conditions in respect of: (i) an assessment of the capacity and impact on all structures along those parts of the highway network which shall be utilised during the construction of the development; (ii) condition surveys of all highway features along those parts of the highway network that would be utilised during the construction of the development; and (iii) a scheme to provide for the remediation of any incidental damage to the highway network directly attributable to the development. I consider that such conditions would be both reasonable and necessary in the interest of highway safety and its efficient operation. Recommended Conditions 11-13 therefore deal with these matters.
- 186. Turning to the proposed condition regarding the submission of details of a turbine curtailment protocol. In particular, NRW has confirmed that it would wish the curtailment and cessation of turbines to cover 'medium' and 'high' collision risk bat species, rather than the 'high risk' species only suggested by the applicant and detailed in Condition 20 as then drafted. It is clear that the survey identified a number of bat species potentially roosting, foraging and commuting on site, including high collision risk species such as Common pipistrelle, Soprano pipistrelle and Noctules which were widely recorded across the site during survey work. Nevertheless, from my reading of the submitted Bat Survey Report at ES Appendix 8B, the presence across the site of Serotine, a medium collision risk species, cannot be ruled out despite no definitive recordings of these species having been made. I also note Table 4.5 in ES Appendix 8B provides a summary of bat activity records within 10km of the site, with a total of 82 records of 'unidentified bat species'. I heard from the applicant that Serotine are classed within the rarest category in Wales and their presence is unlikely based on a lack of records (other than activity) within the bat survey area. Conversely, NRW contends that medium risk bat species also exhibit flight behaviour which brings them in close proximity to turbine blades and Serotine is of conservation concern given that it is only infrequently encountered: It therefore asserts that the incision of medium risk species is an appropriate and proportionate safeguard. As I am not persuaded by the evidence that there would be no medium risk bat species affected, and having regard to the advice of NRW (which is based on a precautionary principle) together with the duties set out in Section 6 of the Environment (Wales) Act to maintain and enhance biodiversity, I consider that it is appropriate to require the turbine curtailment protocol to apply to medium risk as well as high risk bat species. I have therefore re-worded the condition accordingly.

Planning Balance

- 187. FW is clear that decision makers must give significant weight to the need to meet Wales' international commitments and to generate 70% of energy used from renewable sources by 2030. The proposed development would see the generation of up to 34MW of renewable energy which would support the electricity needs of approximately 21,100 homes each year over its operational lifespan. The proposed development would therefore make a meaningful contribution to WG's commitment to developing large scale renewable and low carbon energy to meet future energy needs and combat the climate emergency. In addition, the development would offer social and economic benefits as outlined above. Be that as it may, such benefits in terms of contributing to energy targets and economic benefit have to be balanced against any adverse impacts.
- 188. The acceptance of some degree of landscape change is outlined in FW Policy 17 with the identification of PAAs for Wind Energy development. Based on the recognition in

FW that WG has already modelled the likely impact on the landscape, I have found that the development could be accommodated within the landscape in an acceptable manner. Whilst the Residential Visual Amenity Assessment finds that there is no change that would lead to the residential areas becoming an unattractive place to live when judged objectively and in the public interest, the visual effects of the development would be locally significant and adverse. Thus, overall, I afford this harm moderate weight.

- 189. The moderate to significant adverse effects of the proposed development upon the setting of a Scheduled Monument could not be directly mitigated and, as such, offsetting / compensation measures are proposed. Such measures would not reduce the impact of the development on the setting of the historic asset, albeit I recognise that the development would be temporary and the impact reversible. I therefore afford this matter minor weight.
- 190. It has been demonstrated that noise impacts and shadow flicker could be effectively mitigated through the imposition of suitably worded planning conditions. I therefore find that the development would not cause any material harm to the living conditions of the occupiers of nearby residential properties by reason of noise impact or shadow flicker.
- 191. The development would not have an unacceptable adverse effect on any internationally designated sites, alone or cumulatively. Furthermore, subject to conditions, there would be no unacceptable adverse impacts on nationally designated sites for nature conservation, habitats or species. The proposed development would have no effect on the integrity or conservation status of any SINCs. Ecological protection, monitoring and enhancement measures would be provided through relevant planning conditions.
- 192. Similarly, the development would not give rise to any unacceptable traffic or highway safety issues subject to details being agreed and implemented through planning conditions.
- 193. Hence, I consider matters of noise impacts, shadow flicker, ecology and highway safety to be neutral in the planning balance.
- 194. Overall, I afford the benefits considerable weight in light of the clear support for such contributions in Policies 17 and 18 of FW which sets out Welsh Government's approach to promoting the increased production of renewable energy in a way that seeks to strike an appropriate balance with the protection of other relevant interests.
- 195. As FW is the most recently adopted part of the Development Plan containing the most directly relevant policy to renewable energy projects of national significance, and the harms I have identified are localised and represent relatively minor to moderate conflict with the LDP policies, I conclude that the proposal would comply with the Development Plan as a whole. There are no material planning considerations that indicate the application should be determined other than in accordance with the Development Plan.

Recommendations

- 196. That planning permission be granted for the development proposed, subject to the planning conditions set out at Annex A.
- 197. In reaching my recommendation, I have taken into account the requirements of sections 3 and 5 of the Well-Being of Future Generations (Wales) Act 2015. I consider that this recommendation is in accordance with the Act's sustainable development principle through its contribution towards embedding our response to the climate and nature emergency in everything we do.

Melissa Hall

Inspector

ANNEX A - Schedule of Recommended Conditions

1. The development shall begin not later than five years from the date of this decision.

Reason: To comply with the requirements of Section 91 of The Town and Country Planning Act 1990.

- 2. The development shall be carried out in accordance with the following approved plans and documents unless otherwise specified or required by Conditions 3-38 listed below:
 - Figure 1 Site location, Drawing 42863-WOOD-XX-XX-FG-J-0047_S2_P01.1.
 - Figure 2 Overall site layout, Drawing 42863-WOOD-XX-XX-FG-J-0036_S2_P01.1.
 - Figure 3 Typical wind turbine, Drawing 42863-WOOD-XX-XX-FG-J-0037_S2_P01.1.
 - Figure 4 Typical wind turbine foundation, Drawing 42863-WOOD-XX-XX-FG-J-0038_S2_P01.1.
 - Figure 5 typical wind turbine crane hardstanding, Drawing 42863-WOOD-XX-XX-FG-J-0039_S2_P01.1.
 - Figure 6 Typical internal site track cross section, Drawing 42863-WOOD-XX-XX-FG-J-0040_S2_P01.1.
 - Figure 7 Typical cable trench details, Drawing 42863-WOOD-XX-XX-FG-J-0041_S2_P01.1.
 - Figure 8 Typical switch room and substation compound, Drawing 42863-WOOD-XX-XX-FG-J-0042_S2_P01.1.
 - Figure 9 Substation building elevations, Drawing 42863-WOOD-XX-XX-FG-J-0049_S2_P01.1.
 - Volumes 1- 4 Pennant Walters Mynydd Carn y Cefn Wind Farm Environmental Statement
 - Preliminary Ecological Appraisal, by Wood Group UK Limited, dated September 2022
 - Technical note: Mynydd Carn y Cefn (Ref. DNS/3270299) Minerals Additional Information & High-Level Review, By WSP, 2023.
 - Further information response MSA and site layout, Drawing 42863-WOOD-XX-XX-FG-J-0050_S2_P01.
 - Mynydd Carn y Cefn Windfarm Geotechnical Site Investigation Review, By Integral Geotechnique, dated 23 February 2023.
 - Technical note: Mynydd Carn y Cefn Wind Farm Construction Mitigation Monitoring strategy, by WSP, May 2023, Document Ref: 62280938 – CMMS – 20230509 – V3.
 - Pennant Walters Mynydd Carn y Cefn Wind Farm Geological Model: Assessment of Mining Related Constraints, by Wardell Armstrong, dated March 2023.
 - Further information response Appendix 12a Annex B, comprising:
 - Swept Path Analysis Pinch Point 1, Drawing 4263-WOOD-XX-XX-DR-OT-0001_S0, Revision P01.
 - Swept Path Analysis Pinch Point 2, Drawing 4263-WOOD-XX-XX-DR-OT-0002_S0, Revision P01.
 - Swept Path Analysis Pinch Point 3, Drawing 4263-WOOD-XX-XX-DR-OT-0003_S0, Revision P01.
 - Swept Path Analysis Pinch Point 4, Drawing 4263-WOOD-XX-XX-DR-OT-0004_S0, Revision P01.
 - Swept Path Analysis Pinch Point 5, Drawing 4263-WOOD-XX-XX-DR-OT-0005_S0, Revision P01.
 - Swept Path Analysis Pinch Point 6, Drawing 4263-WOOD-XX-XX-DR-OT-0006_S0, Revision P01.

- Swept Path Analysis Pinch Point 7, Drawing 4263-WOOD-XX-XX-DR-OT-0007_S0, Revision P01.
- Swept Path Analysis Pinch Point 8, Drawing 4263-WOOD-XX-XX-DR-OT-0008_S0, Revision P01.
- Swept Path Analysis Pinch Point 9, Drawing 4263-WOOD-XX-XX-DR-OT-0009_S0, Revision P01.
- Swept Path Analysis Pinch Point 10, Drawing 4263-WOOD-XX-XX-DR-OT-0010_S0, Revision P01.
- Swept Path Analysis Pinch Point 11, Drawing 4263-WOOD-XX-XX-DR-OT-0011_S0, Revision P01.
- Swept Path Analysis Pinch Point 12, Drawing 4263-WOOD-XX-XX-DR-OT-0012_S0, Revision P01.
- Appendix 8B: Bat Survey Report' by Wood Group UK Limited, dated January 2022
- Appendix 8H: Outline Habitat Management Plan' by Wood Group UK Limited, dated September 2022

Reason: To clarify the scope of this permission.

3. This planning permission shall endure for a period of 30 years from the date when electricity is first exported from the wind turbines to the electricity grid ('First Export Date'). Written notification of the First Export Date shall be provided by the developer to the Local Planning Authority no later than 1 calendar month after that event.

Reason: This is a temporary development with a maximum duration of 30 years, in accordance with LDP Policy DM4.

4. All the wind turbines shall be of a three bladed configuration and not exceed an overall hub height of 105m and blade tip height of 180m. The turbines shall not display any prominent name logo, symbol, sign or advertisements on any external surface. The colour and finish of the turbines shall be submitted to and approved by the Local Planning Authority prior to their erection.

Reason: In the interests of visual amenity, in accordance with LDP Policy DM1.

5. Not later than 12 months prior to the end of this permission, as defined in Condition 3, a decommissioning and site restoration scheme, informed by a full ecological survey of the site, shall be submitted for the written approval of the Local Planning Authority.

The decommissioning and site restoration scheme shall make provision for, the removal of the wind turbines and associated above ground infrastructure approved under this permission and details of the depth to which the wind turbine foundations will be removed.

The survey report shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of decommissioning and then implemented as approved. The report shall include ecological mitigation measures, as appropriate, based on the ecological assessment findings to be followed during decommissioning and for a period of 5 years from the completion of the decommissioning and restoration.

The approved scheme shall be fully implemented within 12 months of the expiry of this planning permission, unless otherwise agreed in writing by the Local Planning Authority.

Reason: To ensure that obsolete structures do not adversely affect the environment in the interests of the character and visual amenity of the area, in accordance with LDP Policies DM1 and DM4.

6. In the event that a wind turbine hereby permitted fails to produce electricity supplied to the grid for a continuous period of 12 months, a scheme shall be submitted to the Local Planning Authority for written approval within 3 months of the end of the 12-month period, for the repair or removal of the turbine. The scheme shall include, as relevant, a programme of remedial works where repairs to the turbine are required. Where removal is necessary the scheme shall include a programme for removal of the turbine and associated above ground works approved under this permission, details of the depth to which the wind turbine foundations will be removed and for site restoration measures following the removal of the relevant turbine. The scheme shall thereafter be implemented in accordance with the approved details and timetable.

Reason: In the interests of the character, appearance and visual amenity of the area, in accordance with LDP Policies DM1 and DM4.

7. No development, including vegetation clearance, shall commence until a micro-siting protocol has been submitted to and approved in writing by the Local Planning Authority. The protocol shall accord with the joint agency guidance on 'Bats and Onshore Wind Turbines – Survey, Assessment and Mitigation' (Nature Scot et al, August 2021) and in particular paragraph 7.1.2 thereof.

The protocol shall set out a methodology for deciding on micro-siting of all elements of the development hereby approved to minimise the impact of the development. The protocol shall provide for the detailed layout of all turbines, being located within 50m of the locations shown on the approved plans and the internal wind farm tracks and other infrastructure to be sited within 100m. Any turbine locations not in accordance with joint agency guidance requiring additional measures to safeguard bat populations to be agreed, submitted to and approved in writing by the local planning authority.

The specific location of the turbines, access track and associated infrastructure shall be submitted to and approved in writing by the Local Planning Authority prior to the erection of the first turbine. The details shall clarify the extent of the permanent/temporary land take and/or changes that would result in degradation and/or loss of habitat.

A plan showing the position of the turbines and tracks established on the site shall be submitted to the Local Planning Authority within one month of the First Export Date.

Reason: To ensure that an approved turbine micro-siting plan is implemented to protects bats affected by the development, in accordance with LDP Policies DM4 and DM14.

8. Notwithstanding the submitted plan (listed as Figure 2 of Condition 2) and Condition 7:

(i) Turbine 8 shall be micro-sited to a location which provides a minimum of 50m buffer between blade tip and the existing Abertillery to Rhymney SHF Microwave Link. The location shall be submitted to and agreed in writing by the LPA before any foundations of any turbine are laid/set.

(ii) Turbine 6's foundations shall not be micro-sited to a position less than 30m from the Cwm Preferred Area (as defined by the BGCBC LDP).

Reason: To ensure that the development does not affect existing telecommunications infrastructure and to protect the identified mineral safeguarding area, in accordance with LDP Policies DM4 and DM19.

9. Prior to the commencement of development a Construction Traffic Management Plan (CTMP) consistent with the ES Appendix 12B CTMP by Wood Group UK Ltd dated September 2022 shall be submitted to and approved in writing by the Local Planning Authority. The CTMP shall contain (but not limited to) the following information:

- (i) Introduction background; number of turbines; scope of TMP;
- (ii) Context relevant studies relating to TMP proposals; other proposed wind farm developments that may be using a similar access route(s) where information is available;
- (iii) Description of Route Detailed description of the access route and any proposed route restrictions;
- (iv) General Construction Traffic details of all non-abnormal loads forecast to travel to and from the site; route choice or different types of load throughout the construction programme; anticipated times of movement through traffic sensitive and/or residential areas; and
- (v) Public Awareness proposals for consultation with and notification to the travelling public and local communities.

Reason: In the interests of the highway safety and free flow of traffic in accordance with LDP Policies DM1 and DM4.

- 10. Prior to the commencement of any deliveries to the site an Abnormal Load Transport Management Plan (ALTMP) to specifically deal with the delivery of the turbine components consistent with ES Appendix 12A Abnormal Indivisible Load (AIL) Access Study by Wood Group UK Ltd dated September 2022 shall be submitted to and approved in writing by the Local Planning Authority. The ALTMP shall contain (but not limited to) the following information:
 - Description of Route Detailed description of the access route from the port of entry to the site, identifying road types and characteristics; information on other relevant, proposed developments such as other wind farms where this is readily available; plans showing the extent of the route;
 - (ii) Convoy Size number and sizes/details of loads; possible convoy composition including private and police escorts (to be agreed with the police);
 - (iii) Traffic Management to include methodology for moving convoys whilst minimising delay to other traffic; detailed design and location of holding/ overrun areas, including passing places and overnight/longer term layover areas; plans showing points where the police may need to hold other traffic to enable the convoys to pass, such as at junctions or bends; contingency plans in the event of incidents or emergencies;
 - (iv) Delivery Times estimated journey durations based on assumed convoy speeds, including timings for traffic sensitive locations, delays to negotiate constraints and assumed arrival/departure times at residential communities; forecast queues of other traffic in both directions along the route, based on background traffic flow data; consideration of turbine deliveries to other wind farms proposing to use similar routes;
 - (v) Trial Runs documented trial run information, mimicking the movement of the longest and widest anticipated loads, witnessed/observed by the relevant highway authorities and police and recorded with full video coverage; and
 - (vi) Consultees for TMP list to include all affected highway authorities and police forces.

Reason: In the interests of the highway safety and free flow of traffic, in accordance with LDP Policies DM1 and DM4.

- 11. No turbine components shall be delivered to site until:
 - An assessment of the capacity and impact on those structures identified by WG Transport as requiring assessment along the parts of the highway network which shall be utilised during the construction of the development including bridges, culverts, retaining walls, embankments; and
 - (ii) Details of any improvement works required to such structures as a result of construction of the development

have been submitted to and approved in writing by the Local Planning Authority. The required improvement works identified in the assessment shall be completed prior to the commencement of any Abnormal Indivisible Load (AIL) deliveries to the development site.

Reason: In the interests of the highway safety and free flow of traffic, in accordance with LDP Policies DM1 and DM4.

12. Condition surveys of all highway features along those parts of the highway network which shall be utilised during the construction of the development shall be undertaken prior to, during and on completion of the construction phase of the development. The survey reports shall be submitted to the Local Planning Authority for approval within 28 days of each corresponding survey being undertaken.

Reason: In the interests of the highway safety and free flow of traffic, in accordance with LDP Policies DM1 and DM4.

13. Prior to the first delivery of any turbine components to the site a scheme to provide for the remediation of any incidental damage directly attributable to the development to the parts of the highway network which will be utilised during the construction of the development including street furniture, structures, highway verge and carriageway surfaces shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented as approved throughout the construction phase of the development and in accordance with a timetable that has first been agreed by the Local Planning Authority.

Reason: In the interests of the highway safety and free flow of traffic, in accordance with LDP Policies DM1 and DM4.

- 14. No development shall commence until a water quality monitoring plan for the protection of water quality in the watercourses has been submitted to and approved in writing by the Local Planning Authority. The water quality monitoring plan should include:
 - (i) Details of the monitoring methods including any baseline monitoring prior to start of construction;
 - (ii) Timescales for construction;
 - (iii) Timescales for submission of monitoring and interpretative reports to the LPA during construction; and
 - (iv) Details of triggers for specific action and any necessary contingency actions, for example the need to stop work, introduction of drip trays, make use of spill kits and shut-off valves.

The water quality monitoring plan shall be carried out in accordance with the approved details during the site preparation and construction phases of the development.

Reason: To ensure necessary monitoring measures are approved prior to commencement of development and implemented to manage any potential adverse impacts of construction on water quality in watercourses, in accordance with LDP Policies DM1 and DM4.

- 15. Prior to the operation of the development, a long- term monitoring plan for water quality (watercourses and ground water within the site) shall be submitted and approved in writing by the Local Planning Authority. The long-term monitoring plan should include:
 - (i) Details of the methods and triggers for action to be undertaken;
 - (ii) Timescales for the long-term monitoring and curtailment mechanisms (e.g. a scheme of monitoring for 3 years unless the monitoring reports indicate that subsequent monitoring is or is not required);
 - (iii) Timescales for submission of monitoring reports to the Local Planning Authority;
 - (iv) Details of any necessary contingency and remedial actions and timescales for actions;
 - (v) Details confirming that the contingency and remedial actions have been carried out.

The monitoring plan shall be carried out in accordance with the approved details and within the agreed timescales.

Reason: To ensure necessary monitoring measures are approved to manage any potential adverse impacts on water quality, in accordance with LDP Policy DM1.

16. Prior to the commencement of development details of the foul water drainage system for the site shall be submitted to and approved in writing by the Local Planning Authority. The drainage system shall be completed in accordance with the approved details prior to the first export date and shall be managed and maintained thereafter in accordance with the agreed management and maintenance plan.

Reason: In the interests of protecting the water quality, ecology, and amenity of the area, in accordance with LDP Policies DM1 and DM4.

- 17. No development shall take place until an updated habitat management and protection plan consistent with the Appendix 8H: Outline Habitat Management Plan by Wood Group UK Ltd., dated September 2022, has been submitted to and approved in writing by the Local Planning Authority. The management and protection plan shall include:
 - (i) A plan showing wildlife and habitat protection zones;
 - (ii) Details of development and construction methods within wildlife and habitat protection zones and measures to be taken to minimise the impact of any works;
 - (iii) Details of phasing of construction;
 - (iv) Details of invertebrate monitoring, recording, and reporting to the Local Planning Authority;
 - (v) A programme of annual bracken reduction; and
 - (vi) Methods to control grazing pressures.

The habitat management and protection plan shall be implemented in accordance with the timings approved by the Local Planning Authority and maintained throughout the operational period of the development.

Reason: In the interests of the ecological value of the application site and wider area, in accordance with LDP Policies DM1, DM4 and DM14.

- 18. No development shall take place on site until an updated Construction Environmental Management Plan (CEMP) consistent with the CEMP by Wood Group UK Ltd, dated May 2023, has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall include (but not be limited to) details of:
 - (i) Hours of working;
 - (ii) The parking of vehicles of site operatives and visitors;
 - (iii) Wheel washing;
 - (iv) Storage of plant and materials during construction;
 - (v) The erection and maintenance of security hoarding;
 - (vi) Site lighting;
 - (vii) Material management including storage and management of soil, fuel oil and chemical storage, recycling and disposal of waste;
 - (viii) Biodiversity protection, mitigation and enhancement measures;
 - (ix) Timing and location of works relative to breeding and nesting birds; and
 - (x) Details of Public Right of Way closure and signage.

The details and measures contained in the CEMP as approved by the Local Planning Authority shall be adhered to throughout the construction period.

Reason: To safeguard local amenity interests, in accordance with LDP Policy DM4.

- 19. Before any foundations of any turbine are laid/set, a detailed scheme for the postconstruction monitoring of bats at all turbines shall be submitted to an approved in writing by the Local Planning Authority. The scheme shall build upon the principles set out in ES Chapter 8, Table 8.10 and accord with the joint agent guidance 'Bats and Onshore Wind Turbines- Survey, Assessment and Mitigation' (Nature Scot et al, August 2021). It shall include:
 - (i) Methods for data gathering and analysis;
 - (ii) Location of monitoring;
 - (iii) Timing and duration of monitoring;
 - (iv) Appropriate persons and equipment to carry out monitoring;
 - (v) Timing and format for presenting and dissemination of monitoring results including submission to all data relevant databases;
 - (vi) Remedial measures to reduce any impacts identified through monitoring including in respect of turbine curtailment; and
 - (vii) Contingency prescriptions that will be carried out in the event of failure to undertake required surveillance.

The scheme shall be implemented in accordance with the approved details upon commencement of operation of one or more of the turbines.

Reason: To protect bats affected by the development area, in accordance with LDP Policies DM1, DM4 and DM14.

20. Before any foundations of any turbine are laid/set details of a turbine curtailment protocol shall be submitted to and approved in writing by the Local Planning Authority. The protocol shall build upon the outline proposals set out in ES Chapter 8, Table 8.10, and be informed by the joint agency guidance 'Bats and Onshore Wind Turbines-Survey, Assessment and Mitigation (Nature Scot et al, August 2021). It shall provide for the operation of any turbine to cease immediately in circumstances prescribed by the protocol and in any event whenever the monitoring carried out pursuant to Condition 19 shows activity levels at any turbine to be moderate or above to medium and high risk bat species, using the Ecobat methodology. When operation is re-commenced it shall accord with the approved turbine curtailment programme.

The protocol shall provide for turbine curtailment programme to include provision for ongoing monitoring of the effects of the programme on bat injuries, fatalities and activity at the site, and shall provide for the preparation of an adjusted curtailment programme to accord with the results recorded. Where monitoring shows that the impact on bats is unacceptable in the reasonable opinion of the local planning authority, operation shall cease immediately until the adjusted curtailment programme has been submitted to and approved in writing by the Local Planning Authority. Upon recommencement of operation of the turbine, the turbine operation shall comply with the adjusted curtailment programme as approved.

Reason: To protect bats affected by the development in accordance with LDP Policies DM1, DM4 and DM14.

21. The turbine blades on all turbines shall at all times be feathered to reduce rotation speeds to below 2 rpm while idling, in accordance with paragraph 7.1.3(a) of the joint agency guidance 'Bats and Onshore Wind Turbines – Survey, Assessment and Mitigation' (Nature Scot et al, August 2021).

Reason: To protect bats affected by the development, in accordance with LDP Policies DM1, DM4 and DM14.

22. No development, including site clearance, shall commence until all pre-construction bird surveys carried out in accordance with section 2.1 of the Construction Mitigation Monitoring Strategy by WSP, dated May 2023, have been submitted to and approved in writing by the Local Planning Authority. The results of the survey(s) together with proposed mitigation measures and a timescale of implementation shall be submitted to and approved in writing by the Local Planning Authority.

Reason: To ensure the protection of species in accordance with LDP Policies DM1, DM4 and DM14.

23. During the construction and operation of the development hereby approved, the results of monitoring reports as set out in Section 2.2 of the Construction Mitigation Monitoring Strategy by WSP, dated May 2023, together with any mitigation including timetable for implementation shall be submitted to and approved in writing by the Local Planning Authority. Mitigation shall be carried out in accordance with the approved details and within agreed timescales.

Reason: To ensure the protection of species, in accordance with LDP Policies DM1, DM4 and DM14.

24. No development shall take place until a Phase 2 Geo Technical Site Investigation has been carried out in accordance with a methodology first submitted to and approved in writing by the Local Planning Authority and which shall include the geographical scope of the site investigation. The results of the site investigation shall be submitted to the local planning authority before any development begins. If any land instability issues are found during the site investigation, a report specifying the measures to be taken to remediate the site to render it suitable for the development shall be submitted to and approved in writing by the Local Planning Authority. Remedial measures shall be carried out prior to the first beneficial use of the development in accordance with the approved details and retained in perpetuity.

Reason: In the interests of health and safety and to ensure the development does not cause or exacerbate any land stability issues on the site or wider area, in accordance with LDP Policy DM1.

25. If during the course of development, any unexpected land instability issues are found within the geographical scope of the site investigation which were not identified in the site investigation referred to in condition 23, additional measures for their remediation in the form of a remediation scheme shall be submitted to and approved in writing by the local planning authority. The remediation of the site shall incorporate the approved additional measures which shall be retained in perpetuity.

Reason: In the interests of the health and safety and to ensure the development does not cause or exacerbate any land stability issues on the site or wider area, in accordance with LDP Policy DM1.

- 26. No development, shall commence until the following components of a scheme to deal with the risks associated with contamination at the site, has been submitted to and approved in writing by the Local Planning Authority:
 - (i) A site investigation scheme, based on the preliminary risk assessment/desk study to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.
 - (ii) The results of the site investigation and the detailed risk assessment referred to in
 (i) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.
 - (iii) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (ii) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

The remediation strategy and its relevant components shall be carried out in accordance with the approved details.

Reason: To ensure the risks associated with contamination at the site have been fully considered prior to commencement of development and that necessary remediation measures and long-term monitoring are implemented to prevent unacceptable risks from contamination, in accordance with LDP Policy DM1.

27. Prior to the beneficial operation of the development a verification plan demonstrating completion of works set out in the approved remediation strategy and the effectiveness of the remediation shall be submitted to and approved in writing by the Local Planning Authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met. It shall also include a long-term monitoring and maintenance plan for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action, as identified in the verification plan. The long-term monitoring and maintenance plan shall be carried out in accordance with the approved details.

Reason: To ensure the methods identified in the verification plan have been implemented and completed and the risk associated with the contamination at the site has been remediated prior to beneficial operation, in accordance with LDP Policy DM1.

- 28. No development shall take place until there has been submitted to and approved in writing by the Local Planning Authority a scheme of landscaping. The submitted scheme shall include:
 - (i) indications of all existing trees (including spread and species) and hedgerows on the land clearly identifying those to be lost or retained;
 - (ii) measures for the protection of retained trees or hedges throughout the course of development;
 - (iii) details of ground preparation, planting plans, number and details of species;
 - (iv) maintenance details for a minimum period of 5 years; and
 - (v) a phased timescale of implementation.

Reason: To ensure submission of an appropriate landscaping scheme in order to protect the character and appearance of the area, in accordance with LDP Policy DM2.

29. All planting, seeding or turfing comprised in the approved details of landscaping shall be carried out in the first planting and seeding seasons following the first beneficial operation of the first turbine; and any trees or plants which within a period of 5 years from the completion of the development die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species.

Reason: To ensure timely implementation of an appropriate landscaping scheme, in accordance with LDP Policy DM2.

30. No development shall take place until the applicant, or their agents or successors in title, has secured agreement for a written scheme of historic environment mitigation which has been submitted to and approved in writing by the Local Planning Authority. Thereafter, the programme of work will be fully carried out in accordance with the requirements and standards of the written scheme.

Reason: To identify and record any features of archaeological interest discovered during the works and to mitigate the impact of the works on the archaeological resource, in accordance with LDP Policies DM4 and SP11.

31. Prior to the commencement of development, details of the compensation measures for St Illtyd's Mound as detailed in ES Appendix 7E, shall be submitted to, and approved in writing by the Local Planning Authority. The compensation measures shall be installed in accordance with the approved details, unless otherwise agreed in writing within one month of the first beneficial operation of the first turbine and shall be retained as such thereafter.

Reason: In the interest of protecting and promoting the archaeological resource, in accordance with LDP Policies DM4 and SP11.

32. Prior to the commencement of development, details of a mechanism and /or control module to reduce shadow flicker shall be submitted to and approved in writing by the Local Planning Authority. The development shall only be operated in accordance with the approved details.

Reason: In the interests of residential amenity, in accordance with LDP Policies DM1 and DM4.

33. The rating level of noise imissions from the combined effects of the wind turbines (including the application of any tonal penalty) when determined in accordance with the [attached] Guidance Notes, shall not exceed the values for the relevant integer wind

speed set out in Appendix 1, at any dwelling which is lawfully existing or has planning permission at the date of this permission.

- (a) The wind farm operator shall continuously log power production, wind speed and wind direction, all in accordance with Guidance Note 1(d) of the LPA's LIR. These data shall be retained for a period of not less than 24 months. The wind farm operator shall provide this information in the format set out in Guidance Note 1(e) to the Local Planning Authority on its request, within 14 days of receipt in writing of such a request.
- (b) No electricity shall be exported until the wind farm operator has submitted to the Local Planning Authority for written approval a list of proposed independent consultants who may undertake compliance measurements in accordance with this condition. Amendments to the list of approved consultants shall be made only with the prior written approval of the Local Planning Authority.
- (c) Within 21 days from receipt of a written request from the Local Planning Authority following a verified complaint to it from an occupant of a dwelling alleging noise disturbance at that dwelling, the wind farm operator shall, at its expense, employ a consultant approved by the Local Planning Authority to assess the level of noise imissions from the wind farm at the complainant's property in accordance with the procedures described in the attached Guidance Notes. The written request from the Local Planning Authority shall set out at least the date, time and location that the complaint relates to and any identified atmospheric conditions, including wind direction, and include a statement as to whether, in the opinion of the Local Planning Authority, the noise giving rise to the complaint contains or is likely to contain a tonal component.
- (d) The assessment of the rating level of noise imissions shall be undertaken in accordance with an assessment protocol that shall previously have been submitted to and approved in writing by the Local Planning Authority. The protocol shall include the proposed measurement location identified in accordance with the Guidance Notes where measurements for compliance checking purposes shall be undertaken, whether noise giving rise to the complaint contains or is likely to contain a tonal component, and also the range of meteorological and operational conditions (which shall include the range of wind speeds, wind directions, power generation and times of day) to determine the assessment of rating level of noise imissions. The proposed range of conditions shall be those which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the written request of the Local Planning Authority under paragraph (c), and such others as the independent consultant considers likely to result in a breach of the noise limits.
- (e) Where a dwelling to which a complaint is related is not listed in the table (Appendix 1) attached to these conditions, the wind farm operator shall submit to the Local Planning Authority for written approval proposed noise limits selected from those listed in the Table to be adopted at the complainant's dwelling for compliance checking purposes. The proposed noise limits are to be those limits selected from the Tables specified for a listed location which the independent consultant considers as being likely to experience the most similar background noise environment to that experienced at the complainant's dwelling. The rating level of noise imissions resulting from the combined effects of the wind turbines when determined in accordance with the attached Guidance Notes shall not exceed the noise limits approved in writing by the Local Planning Authority for the complainant's dwelling.

- (f) The wind farm operator shall provide to the Local Planning Authority the independent consultant's assessment of the rating level of noise imissions undertaken in accordance with the Guidance Notes within 2 months of the date of the written request of the Local Planning Authority for compliance measurements to be made under paragraph (c), unless the time limit is extended in writing by the Local Planning Authority. The assessment shall include all data collected for the purposes of undertaking the compliance measurements, such data to be provided in the format set out in Guidance Note 1(e) of the Guidance Notes. The instrumentation used to undertake the measurements shall be calibrated in accordance with Guidance Note 1(a) and certificates of calibration shall be submitted to the Local Planning Authority with the independent consultant's assessment of the rating level of noise imissions.
- (g) Where a further assessment of the rating level of noise imissions from the wind farm is required pursuant to Guidance Note 4(c), the wind farm operator shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment pursuant to paragraph (d) above unless the time limit has been extended in writing by the Local Planning Authority.

Reason: In the interests of the amenity of the area, in accordance with LDP Policies DM1 and DM4.

34. Should the wind turbines be identified as operating above the parameters specified in Condition 33 and Appendix 1, the wind turbines will be modified, limited, or shut down as required to ensure compliance with this condition. These measures shall be applied until such time as maintenance or repair is undertaken sufficient to reduce the absolute noise level of the operating turbines to within the parameters specified.

Reason: In the interests of the amenity of the area, in accordance with LDP Policies DM1 and DM4.

35. Once the Local Planning Authority has received the independent consultant's noise assessment required by Condition 33(f), including all noise measurements and any audio recordings, where the Local Planning Authority is satisfied of an established breach of the noise limits set out in the Tables appended to Condition 33, upon notification by the Local Planning Authority in writing to the wind farm operator of the said breach the wind farm operator shall within 21 days propose a scheme of remediation for the written approval of the Local Planning Authority. The scheme shall be designed to mitigate the breach and to prevent its future recurrence and shall specify the timescales for implementation. The scheme shall be implemented as approved by and according to the timescales within it. The scheme as implemented shall be retained thereafter.

Reason: In the interests of the amenity of the area, in accordance with LDP Policies DM1 and DM4.

36. The turbine model shall not exceed the parameters hereby approved. In the event that the proposed turbines model for installation differs from the machine utilised in ES Chapter 13 Noise, a revised Noise Impact Assessment report shall be submitted, demonstrating that predicted noise levels indicate likely compliance with the noise condition levels stated in Appendix 1 prior to the erection of the first wind turbine. Should the revised assessment show that the limits stated in Appendix 1 be exceeded, a scheme of mitigation shall be submitted to and approved in writing by the Local Planning Authority, demonstrating how compliance with the limits stated in Appendix 1 will be achieved. The scheme of mitigation shall be implemented in full prior to the turbines being brought into beneficial use and shall be retained for the lifetime of the development.

Reason: In the interests of the amenity of the area, in accordance with LDP Policies DM1 and DM4.

37. No development shall take place until a scheme for the protection of PRoW during the construction and operational periods, including safety signage and repair of damage caused during construction, has been submitted to and approved in writing by the Local Planning Authority. The agreed scheme shall include for the timing of the measures to be implemented and the measures agreed as appropriate for the operational phase shall be maintained for the lifetime of the development.

Reason: In the interests of the protection of users of PRoW, in accordance with LDP Policy DM4.

38. No turbines shall be erected until a scheme for the mitigation of impact of the wind turbines on the operation of Cardiff Airport primary surveillance radar (the "radar mitigation scheme") has been submitted to and approved in writing by the Local Planning Authority. The development shall thereafter be operated fully in accordance with the approved radar mitigation scheme throughout the operational life of the development.

Reason: To ensure no unacceptable impacts on radar operations in accordance with FW Policy 18 (8).

Appendix 1: Noise limits

The following tables presents the recommended noise limits for the Mynydd Carn-y-Cefn Wind Farm in isolation at the noise sensitive receptor (NSR) locations as listed within Table 13.16 of the Environmental Statement (ES), Chapter 13. The levels have been based upon the identified ETSU-R-97 limits (Table 13.21 and 13.22 of the ES) minus the noise levels from all wind farms except Mynydd Carn-y-Cefn. The resultant level provides the headroom available for Mynydd Carn-y-Cefn.

NCD	Standardised 10m Wind Speed (ms ⁻¹)									
NSK	4	5	6	7	8	9	10	11	12	
R1	41.3	41.0	40.5	40.3	40.3	41.6	42.6	42.6	42.6	
R2	41.4	41.2	40.9	40.7	40.7	41.9	42.9	42.9	42.9	
R3	39.8	39.6	39.3	40.0	42.1	44.5	47.2	50.5	54.3	
R4	39.8	39.6	39.2	39.9	42.0	44.4	47.2	50.5	54.3	
R5	39.8	39.6	39.4	40.1	42.1	44.5	47.2	50.5	54.3	
R6	39.8	39.6	39.4	40.1	42.1	44.5	47.2	50.5	54.3	
R7	39.8	39.6	39.3	40.0	42.0	44.4	47.2	50.5	54.3	
R8	39.6	39.4	39.0	39.3	41.3	43.8	46.8	50.3	54.2	
R9	39.9	39.8	39.7	39.6	40.5	40.5	40.5	40.5	40.5	
R10	39.9	39.8	39.6	39.5	40.4	40.4	40.4	40.4	40.4	
R11	39.7	39.5	39.1	38.8	39.9	39.9	39.8	39.9	39.9	
R12	39.9	39.7	39.6	39.4	40.4	40.4	40.4	40.4	40.4	
R13	44.9	44.8	44.6	44.5	44.5	44.5	44.5	44.5	44.5	
R14	39.7	39.5	39.1	39.0	40.0	40.0	40.0	40.0	40.0	
R15	43.8	43.6	43.4	43.3	43.3	43.4	43.4	43.4	43.4	
R16	43.8	43.6	43.4	43.3	43.3	43.4	43.4	43.4	43.4	
R17	43.8	43.6	43.4	43.3	43.3	43.4	43.4	43.4	43.4	
R18	43.7	43.4	43.0	42.7	42.7	42.9	42.8	42.8	42.8	
R19	43.8	43.6	43.4	43.3	43.3	43.5	43.5	43.5	43.5	
R20	43.8	43.7	43.6	43.5	43.5	43.7	43.7	43.7	43.7	

Table 1 Daytime (07:00 – 23:00) Wind turbine noise limits (dB LA90,7) for Mynydd Carn-Y-	•
Cefn, derived in accordance with ETSU-R-97, per Standardised 10m Wind Speed (ms	S⁻¹)

Table 2 Night-time (23:00 – 07:00) Wind turbine noise limits (dB Lago,) for Mynydd Carn-Y-Cefn, derived in accordance with ETSU-R-97, per Standardised 10m Wind Speed (ms⁻¹)

NSR	Standardised 10m Wind Speed (ms ⁻¹)									
	4	5	6	7	8	9	10	11	12	
R1	42.9	42.7	42.3	42.2	42.2	42.7	42.7	42.7	42.7	
R2	42.9	42.8	42.6	42.5	42.4	42.9	42.9	42.9	42.9	
R3	42.9	42.8	42.7	42.6	42.5	42.5	44.1	45.9	47.4	
R4	42.9	42.8	42.6	42.5	42.5	42.4	44.1	45.9	47.4	
R5	42.9	42.8	42.7	42.6	42.5	42.5	44.1	45.9	47.4	
R6	42.9	42.8	42.7	42.6	42.5	42.5	44.1	46.0	47.4	
R7	42.9	42.8	42.7	42.5	42.5	42.4	44.0	45.9	47.4	
R8	42.8	42.7	42.5	42.2	41.8	41.4	43.2	45.4	47.0	

DO	42.0	42.0	42.0	12.0	12.0	12.0	12.7	12.0	12.0
R9	42.9	42.9	42.9	42.8	42.8	42.8	42.7	42.8	42.8
R10	42.9	42.9	42.8	42.7	42.7	42.7	42.7	42.7	42.7
R11	42.9	42.8	42.6	42.4	42.4	42.4	42.4	42.4	42.4
R12	42.9	42.9	42.8	42.7	42.7	42.7	42.7	42.7	42.7
R13	44.9	44.8	44.6	44.5	44.5	44.5	44.5	44.5	44.5
R14	42.9	42.8	42.6	42.5	42.5	42.5	42.5	42.5	42.5
R15	42.8	42.7	42.4	42.3	42.3	42.2	42.2	42.2	42.2
R16	42.9	42.7	42.4	42.3	42.3	42.3	42.2	42.2	42.2
R17	42.9	42.7	42.4	42.3	42.3	42.3	42.2	42.2	42.2
R18	42.8	42.4	41.8	41.6	41.6	41.5	41.5	41.5	41.5
R19	42.9	42.7	42.4	42.3	42.3	42.3	42.3	42.3	42.3
R20	42.9	42.8	42.7	42.6	42.6	42.6	42.6	42.6	42.6