

MERTHYR TYDFIL COUNTY BOROUGH COUNCIL



PLANNING AND
REGULATORY FACT FINDING
VISITS MEETING

4.45 PM WEDNESDAY, 30TH JULY, 2014

**LAND ADJOINING UNIT 3,
PENGARNDDU INDUSTRIAL ESTATE, DOWLAIS TOP,
MERTHYR TYDFIL**

This Agenda has been prepared by the Democratic Services Department. Any member of the public requiring information should contact the department on (01685) 725203 or email democratic@merthyr.gov.uk.

A G E N D A

1. Apologies for absence
2. Declarations of Interest

Members of the Planning and Regulatory Fact Finding Visits are reminded of their personal responsibility to declare any personal and prejudicial interest in respect of matters contained in this agenda in accordance with the provisions of the Local Government Act 2000, the Council's Constitution and the Members Code of Conduct.

Note:

- a. Members are reminded that they must identify the item number and subject matter that their interest relates to and signify the nature of the personal interest; and

- b. Where Members withdraw from a meeting as a consequence of the disclosure of a prejudicial interest they must notify the Chair when they leave.
3. P/14/0050 - Land Adjoining Unit 3 Pengarnddu Industrial Estate, Dowlais Top, Merthyr Tydfil
To consider a report of the Corporate Director of **(Pages 1 - 30)** Customer Services.
4. Any other business as deemed urgent by the Chair

COMPOSITION:

Councillors C T Jones (Chair)
B E Mansbridge (Vice-Chair)

H Barrett, T Chaplin, E Galsworthy, A Jones,
D L Jarrett, G Lewis, L A Matthews, L E Smart and
S Williams

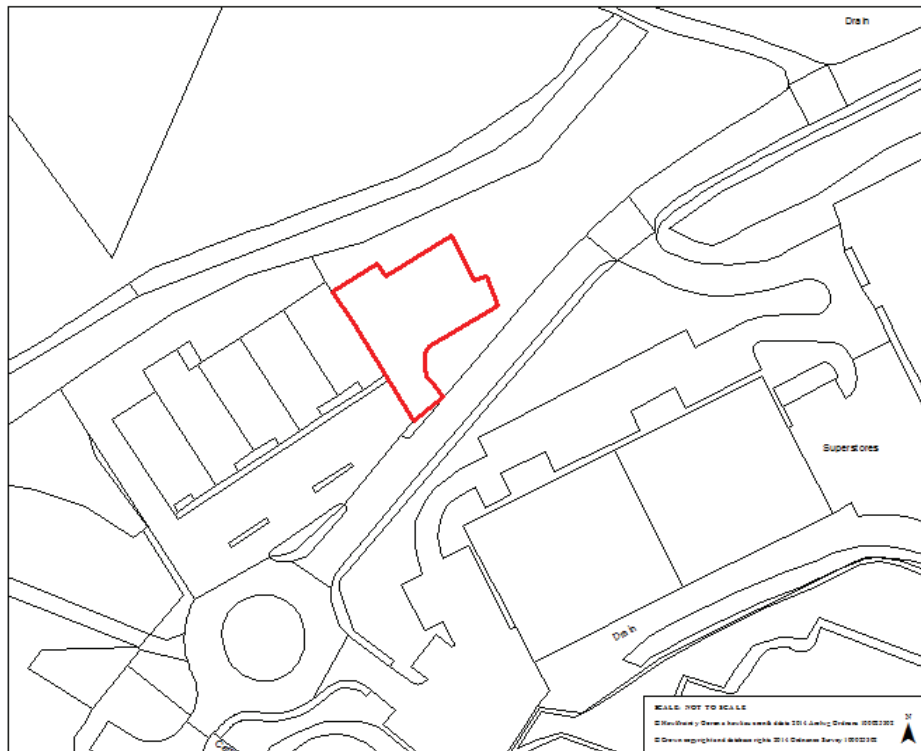
together with appropriate officers

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Os byddai'n well gennych gopi o'r agenda hwn mewn iaith arall, cysylltwch a democratic@merthyr.gov.uk neu ffoniwch 01685 725203

Agenda Item 3

Application No. P/14/0050	Date 20th February 2014	Determining Authority MTCBC
Proposed Development	Location	Name & Address of Applicant/Agent
A single 225 kw wind turbine (up to 65.3m blade tip height) with associated hard standing area, substation/transformer and boundary fencing	Land Adjoining Unit 3 Pengarnddu Industrial Estate Dowlais Top Merthyr Tydfil	Mr S Lloyd c/o Consultant To MDA Renewables F.a.o. Mr J Dacey Bryn Y Coed Load Of Hay Road Crumlin



APPLICATION SITE

This application relates to a plot of vacant land, measuring approximately 0.07 hectares located within the south-west part of Pengarnddu Industrial Estate. The site is largely characterised as an area of grass land with a number of small trees and shrubs along the northern and southern boundaries of the site. There appears to be little evidence of any historical use of the land. However, its proximity to nearby industrial units and highway infrastructure suggests that it is undeveloped land that forms part of the industrial estate. In this regard it is noted

that planning permission (Ref P/12/0142) has previously been granted to erect a storage warehouse on the site.

The site is bounded to the north-west by vacant land and to the east is vacant scrub land, which also appears to form part of the Pengarnddu Industrial Estate. To the south-west is an industrial building accommodating three units, of which Unit 3 adjoins the application site. These industrial units are within the applicant's ownership. The application site is bounded to the south-east by the main highway that serves the site and the wider industrial estate. Opposite the site to the south-east is the former Allied Carpet warehouse and the Asda Superstore lies beyond. Further along the main highway to the north-east of the site are a number of large industrial units and recycling/salvage yards.

PROPOSED DEVELOPMENT

Full planning permission is sought for the erection of a single 225kw wind turbine (for a period of 25 years) that would measure up to 50m high to the hub of the turbine, with a three bladed rotor having a diameter of 29m. The wind turbine would have a maximum blade tip height of 65.3m and would have a non-reflective grey finish.

To support the proposed turbine a concrete foundation would be required measuring approximately 11m wide by 11m in length and 2.3m deep. It is proposed that the top of the foundation would be situated approximately 750mm above the existing ground level.

A hardstanding would be required to serve as a crane set down area and turning facility as part of the construction of the proposed wind turbine. The hardstanding area would comprise a hardcore base and a gravel surface in a 'T' shape, with a maximum length of 38m and maximum width of 29m. It is proposed that this hardstanding area would remain for the life of the project to accommodate cranes that may be required for any repairs/maintenance and the eventual decommissioning of the wind turbine.

It is proposed that the application site would be directly accessed off the main highway serving the Pengarnddu Industrial Estate. No alterations would be required to the existing highway to enable cranes or other vehicles to enter the site. The proposed hardstanding area would be utilised as the means of access within the site.

A transformer would be necessary to link the proposed wind turbine to the national grid. This structure would be located adjacent to the turbine mast and would measure 3.1m wide by 2.3m deep and 2.3m high. The transformer would be connected to a sub-station to be located on the main highway, approximately 20m away, via underground cabling.

The application was submitted with the following supporting documents:

1. Planning Statement
2. Design & Access Statement
3. Transport Management Plan
4. Ecological Survey
5. Noise Assessment
6. Shadow Flicker Assessment
7. Coal Mining Report
8. Turbine Specifications
9. Assessment of the Significance of the Impact of Development on Historic Landscapes (ASIDHOL)
10. ASIDHOL Accompanying Figures
11. Assessment Methodology
12. Landscape & Visual Impact Appraisal
13. Landscape and Visual Appraisal Accompanying Figures
14. Additional Residential Viewpoint Appraisal
15. Additional Residential Viewpoint Appraisal Accompanying Figures
16. A series of detailed plans and drawings illustrating the proposed wind turbine development

PLANNING HISTORY

The following application relates to the application site:

P/12/0142 - Erection of storage/distribution warehouse.

GRANTED full permission on 01.10.2012

The applications listed below relate to other wind turbine developments within the vicinity of the site and are relevant to the determination of this application:

P/14/0117 - Land at Merthyr Industrial Services Ltd (Plot 1)
Pengarnddu Industrial Estate

Erection of a single 500kw wind turbine (up to 77m blade tip height)
with associated hard standing areas, transformer station and access.

Application is still under consideration.

P/13/0383 - Land to the North East Of (0.3 Km) Blaen Morlais Farm
Pengarnddu.

Erection of a single 0.5 mw wind turbine (up to 77m blade tip height) with associated access track, crane hardstanding, substation/ transformer and boundary fencing.

Application is still under consideration.

P/06/0573 - Land at Merthyr Common, Pengarnddu Industrial Estate, Dowlais.

Wind farm comprising 5 wind turbines, wind monitoring mast, switch station, access tracks and ancillary works.

REFUSED permission on 15.12.2008 for the following reasons:

1. The erection of a wind farm in this location would have an adverse impact on the quality and character of the landscape within which it is situated and to the setting of the Brecon Beacons National Park, to the detriment of visual amenity. As such, the proposal is out of accord with Policies EV4, EV10 and U1 of the adopted Mid Glamorgan (Merthyr Tydfil County Borough) Replacement Structure Plan, Policies NH1, NH7 and RU1 of the adopted Merthyr Tydfil Borough Local Plan, policies TB1, TB7 and BW4 of the Deposit Version of the Local Development Plan and is contrary to national planning policy and guidance, in particular Planning Policy Wales, Ministerial Interim Planning Policy Statement 01/2005 (Planning for Renewable Energy) and Technical Advice Note No. 8: Planning for Renewable Energy.

2. The construction of access tracks and other infrastructure associated with the erection and maintenance of the wind turbines (turbine foundations and pads, crane pads, hard standings, cabling trenches) will have an unacceptable, adverse effect upon the hydrology of the application site, to the detriment of the immediate habitat and associated species. As such, the proposal is out of accord with Policies NH1 and NH7 of the adopted Merthyr Tydfil Borough Local Plan, is contrary to national planning policy and guidance and policies TB1, TB7, AS6 and BW4 of the Deposit Version of the Local Development Plan.

The decision on this application was later appealed to the Planning Inspectorate but later withdrawn before any appeal decision was made.

P/04/0361 - Land at Merthyr Common, Pengarnddu Industrial Estate, Dowlais.

Wind farm comprising of 10 wind turbines, wind monitoring mast, switch station, access tracks and ancillary works.

REFUSED permission 06.12.2005 for the following reasons:

1. The erection/construction of a wind farm in this location would have an unacceptable adverse impact on the quality and character of the landscape within which it is situated and to the setting of the Brecon Beacons National Park to the detriment of visual amenity. As such it is out of accord with Policies EV4 and U1 of the Mid-Glamorgan (Merthyr Tydfil County Borough) Replacement Structure Plan and NH1, NH7 and RU1 of the Merthyr Tydfil Borough Local Plan 1995-2006 and would be contrary to national planning guidance.

2. The erection/construction of turbines in the positions shown will have an unacceptable adverse effect on the ecology of the area to the detriment of the habitat (particularly the water environment) and as such is out of accord with Policies NH1 and NH7 of the Merthyr Tydfil Borough Local Plan 1995-2006 and would be contrary to national planning guidance.

CONSULTATION

The following consultees were consulted as part of this planning application. A summary of their responses are provided below:

Internal Consultees

Engineering & Highways
Manager

- No objection subject to conditions relating to surface water drainage and structural design.

Town Planning Division's
Policy & Implementation
Group Leader

- No objection.

Town Planning Division's
Design, Heritage and

Conservation Officer	-	The main concerns relate to the potential cumulative visual impact of the proposed development on the historic landscape and other historical assets.
Town Planning Division's Countryside Officer	-	No objection.
Town Planning Division's Landscape Architect	-	The proposed development would result in a cumulative impact with multiple turbines, together with other vertical structures, such as pylons and communication masts that dominate the landscape and add visual clutter. The development would likely have significant impacts on Penywern Ponds and Pant Cemetery. There are also concerns that the development would impact on the community of Pant, particularly those facing the development, and those that reside at Caeracca.
Environmental Health Manager	-	No objection subject to conditions relating to noise levels, the turbine model and response to complaints.
Legal Division	-	No response.
<u>Other Local Authorities</u>		
Brecon Beacons National Park	-	No objection.
Caerphilly County Borough Council	-	No objection.
Rhondda Cynon Taf County Borough Council	-	No objection.
<u>External Consultees</u>		
Health & Safety Executive	-	No response.
Natural Resources Wales	-	No response.

Glamorgan Gwent Archaeological Trust	-	No objection.
CADW	-	No objection.
RSPB	-	No response.
Welsh Water	-	No objection.
Western Power Distribution	-	No objection.
Wales & West Utilities	-	No objection.
Ofcom	-	No response.
Arqiva	-	No objection.
Ministry of Defence	-	No objection.
Orange Telecommunication	-	No response.
Cable and Wireless	-	No response.
T-Mobile UK	-	No response.
O2	-	No response.
One 2 One Telecommunication	-	No response.
Vodafone Telecommunication	-	No response.
Crown Castle UK	-	No response.
Joint Radio Company	-	No response.
CSS Spectrum Management Services Ltd	-	No response.
TRANSCO	-	No response.
Civic Aviation Authority	-	No response.
National Air Traffic Services	-	No response.
Mercury Communications	-	No response.

Department of Trade and Industry Radio Communications Agency	-	No response.
BBC Research Department	-	No response.
NTL	-	No response.
BT Wholesale Radio Solutions Unit	-	No response.

PUBLICITY

In accordance with the Town & Country Planning (Development Management Procedure) Order 2012, a total of 10 site notices were displayed within the vicinity of the site and in the residential areas of Dowlais and Pant on the 3rd March 2014. Letters were also sent to neighbouring properties on the 24th February 2014.

Additional information was submitted in support of this application, which included a revised Landscape and Visual Impact Assessment and Assessment Methodology, a revised ASIDHOL and Additional Residential Viewpoint Appraisal. As such, a further publicity exercise was carried out, involving 10 site notices being displayed within the vicinity of the site and within the residential areas of Dowlais and Pant on the 2nd May 2014. Letters were also sent to adjoining properties on the 1st May 2014. A further 4 site notices were displayed within the Pengarnddu Industrial Estate and 12 letters were hand delivered to the properties within the estate on the 22nd May 2014.

As a result of the above publicity exercises 8 letters of objection were received along with 8 petitions with a total of 292 signatures. Below is a summary of the main concerns raised:

- The proposed wind turbine would have an adverse visual impact on the surrounding communities. The elevated nature of the common land would also make the development appear taller.
- The visual harm of the development, particularly with a back drop of Brecon Beacons, would result in an impact on tourism and the local economy.
- The proposed wind turbine would have an impact on the natural environment and habitats.
- There are concerns that the proposed wind turbine would cause health problems in the area.

- The potential noise pollution and shadow flicking caused by the turbine would impact on residential properties within close proximity of the site.
- The common land is set aside for the enjoyment of the public and in the interest of wildlife importance.
- There are concerns with the physical danger of the development.
- The development would have a negative impact on property values in the area.

POLICY CONTEXT

The following national and local planning policies within the statutory documents listed below are relevant to the determination of this planning application:

National Planning Policy

Planning Policy Wales 6th edition, February 2014:

Section 3.7 – Planning obligations and the Community Infrastructure Levy.

Para 3.7.6 sets of the tests that should be applied when considering planning obligations in conjunction with the advice set out in Welsh Officer Circular 13/97 – Planning Obligations.

Section 4.5 - Planning for climate change.

Para 4.5.2 sets out the Welsh Government's commitment towards a low carbon economy to tackle future climate impacts through a number of key areas, which includes energy generation.

Para 4.5.7 recognises the need to proactively reduce the demand for energy and facilitate the delivery of new and more sustainable forms of energy provision at all scales as a means towards a low carbon economy.

Section 5.5 - Development management and the conservation and improvement of the natural heritage.

Para 5.5.1 highlights the importance of biodiversity and landscape considerations in the determination of planning applications and the need to take reasonable steps to safeguard or enhance the environmental quality of land.

Para 5.5.2 acknowledges that regard should be given to the environmental impacts of development proposals and the need to avoid any adverse effects.

Where there are potential impacts, this should be balanced with other material considerations and the local planning authority should seek to minimise any effects and where practicable enhance features of nature conservation.

Section 6.5 - Development management and the historic environment.

Para 6.5.1 emphasises the importance of preserving an ancient monument and its setting and the presumption in favour of preserving in situ archaeological remains of national importance. In cases that involve an impact on lesser archaeological remains, regard should be given to the importance of those remains against other factors, including the need for the proposed development.

Para 6.5.25 highlights the need to protect historic landscapes and to consider the implications a development may have on that landscape, which may be of more than local importance.

Section 8.7 – Development management and transport

Para 8.7.1 sets out the criteria that should be taken into account when considering development proposals that have potential transport implications.

Para 8.7.2 identifies the importance of Transport Statements as a mechanism for assessing anticipated highway impacts of a development proposal.

Section 12.10 - Development management and renewable and low carbon energy.

Para 12.10.1 sets out the criteria that should be considered in the assessment of applications for renewable and low carbon energy development and associated infrastructure.

- The contribution a proposal will play in meeting identified national, UK and European targets and potential for renewable energy, including the contribution to cutting greenhouse gas emissions;
- The wider environmental, social and economic benefits and opportunities from renewable and low carbon energy development;
- The impact on the natural heritage, the Coast and the Historic Environment;
- The need to minimise impacts on local communities to safeguard quality of life for existing and future generations;
- Ways to avoid, mitigate or compensate identified adverse impacts;
- The impacts of climate change on the location, design, build and operation of renewable and low carbon energy development. In doing so consider whether measures to adapt to climate change impacts give rise to additional impacts;

- Grid connection issues where renewable (electricity) energy developments are proposed; and
- The capacity of and effects on the transportation network relating to the construction and operation of the proposal.

Technical Advice Notes (TAN):

TAN 5: Nature Conservation and Planning, 2009

Para 4.1.1 sets out the measures that should be followed in delivering the protection and enhancement of nature conservation required by PPW.

Para 4.6.1 – 4.6.2 supports the use of appropriate conditions that may contribute to biodiversity conservation.

TAN 8: Planning for Renewable Energy, 2005.

Para 2.12 – 2.13 encourages smaller onshore wind farm schemes (generally less than 5 Mega Watts) in areas outside of Strategic Search Areas (SSA) and advises that this should be balanced against potential effects on the environment, landscape and cumulative impacts.

Annexe C, Para 2.14 – 2.34 provides guidance on a variety of matters associated with wind turbine developments including ecology, cultural heritage, noise, shadow flickering and visual impacts etc.

TAN 11: Noise, 1997

Para 8 identifies the need to ensure noise generating development proposals do not cause an unacceptable degree of disturbance.

TAN 18: Transport, 2007

Para 9.1 sets out the importance of transport assessments to provide the necessary information to assess the suitability of an application in terms of travel demand and impact.

Para 9.19 supports the use of conditions to secure transport measures and facilities as part of a development proposal, which may include details of deliveries to the site and mitigations to offset any highway implications.

Local Planning Policy

Merthyr Tydfil Local Development Plan (LDP) 2006-2021:

- Policy BW4 - Settlement boundaries / locational constraints.

- Policy BW5 - Natural heritage.
- Policy BW6 - Townscape and built heritage.
- Policy BW8 - Development and the water environment.
- Policy BW12 - Development proposals and transport.
- Policy AS4 - Historic landscape.
- Policy TB7 - Renewable energy.
- Policy TB11 - Access, parking and accessibility.

Section 2.2.11 of the LDP identifies the need to combat climate change through the promotion of energy efficiency and renewable energy technologies to assist in the reduction of CO2 emissions. This is reinforced by the vision and primary aim of the LDP, as set out in its Strategic Objectives.

Supplementary Guidance

In addition to the above mentioned policies the following documents are also a material consideration:

- Welsh Office Circular 13/97 - Planning Obligations
- The Welsh Assembly Government, Energy Policy Statement, '*A Low Carbon Revolution*', March 2010.
- Welsh Government - Study into the Potential Economic Impact of Wind Farms and Associated Grid Infrastructure on the Welsh Tourism Sector, February 2014

PLANNING CONSIDERATIONS

Strategic Location & Land Use

The planning system has an important role in achieving the Welsh Government's commitment to enable the deployment of all forms of renewable energy technologies in Wales. Section 12.8.9 of PPW highlights the need for local authorities to facilitate the development of renewable and low carbon energy.

Whilst there is an aim to secure an appropriate mix of energy provision for Wales, Section 12.8.6 of PPW highlights that this should be balanced against the need to avoid, and where possible minimise environmental, social and economic impacts. The importance of clean energy and the efficient use of natural resources, both as an economic driver and a commitment to sustainable development is recognised at all levels of policy.

The Welsh Government's Technical Advice Note 8: Planning for Renewable Energy takes the view that onshore wind power offers the greatest potential for an increase in the generation of renewable energy provision. It identifies that

large scale (over 25 Mega Watts) onshore wind developments should be concentrated in particular areas, referred to as Strategic Search Areas (SSAs).

However, it is noted in Section 2.11 of TAN 8 that opportunities for the development of wind farm or other renewable energy schemes on urban/industrial brownfield sites up to 25 mega watts should be encouraged within Wales. This is further supported by Policy TB7 of the Local Development Plan, where development proposals that contribute to meeting national and local renewable energy targets, will be favourably considered, particularly on industrial 'brownfield' sites.

A balance should be struck between the desirability of renewable energy outside of SSAs and landscape protection. In this regard consideration should be given to the potential cumulative impact of smaller wind farm development. This will be considered in more detail in the 'Landscape and Visual Impact' section of this report below.

The application site does not lie within a SSA, nor has such an area been identified within the Merthyr Tydfil County Borough. Therefore, the application site would not be suitable for a large wind power scheme. The proposed development is for a single turbine that would generate up to 225KW and would be located within an established industrial/commercial estate on 'brownfield' land. As such, the strategic location and scale of the proposed development is generally supported in principle by national and local policy, subject to further consideration of the potential impacts on the site and the surrounding area.

Land-use

The application site lies within the settlement limits as defined by the adopted LDP Proposals Map. The proposed development of the site in land-use terms is generally supported by Policy BW4, which favours development within settlement limits, subject to its compatibility with other relevant policies. Furthermore, Policy TB7 of the LDP states that development proposals that contribute to meeting the national and local renewable energy targets should be favourably considered provided:

- In the case of wind turbine development, their capacity does not exceed 25MW on urban and industrial brownfield sites, and 5MW elsewhere in the County Borough.
- They do not have an unacceptable impact on biodiversity and landscape including the setting of the Brecon Beacons National Park.
- They do not have an unacceptable impact on the amenity of residential areas.

The proposed 225kw wind turbine would be located on previously undeveloped land within the Pengarnndu Industrial Estate adjoining existing industrial units. Therefore, the principle of the development is considered to be acceptable subject to further consideration of the impacts on biodiversity, landscape and residential amenity.

Environment

Prior to the submission of the planning application, a formal Screening Opinion was sought to determine whether an Environmental Impact Assessment (EIA) was required. The proposed development falls under Category 3 of Schedule 2 of the Town & Country Planning (Environmental Impact Assessment) Regulations 1999, due to the hub height of the turbine exceeding 15m.

It was concluded that an EIA was not required, but any application should include considerations of noise effects, shadow flicker, landscape and visual effects including cumulative effects, local ecological effects and radar and communication effects.

An Ecological Survey prepared by Sturgess Ecology has been submitted in support of the proposed development. This survey included an on-site investigation which was extended beyond the boundary of the application site to a distance of up to 100m from the proposed turbine. Whilst the survey work was carried out late in the fieldwork season, it was nevertheless carried out during suitable conditions in October 2013.

The Ecological Survey includes an assessment of nature conservation value (Section 4), and identifies 7 key areas of consideration:

- Plants and habitats
- Fungi
- Invertebrates
- Amphibians
- Reptiles
- Birds
- Mammals

It is acknowledged that there are two Sites of Importance to Nature Conservation (SINC) within the vicinity of the site, being Blaenmorlais and Merthyr Common. Additionally, within 5km of the site are two Sites of Special Scientific Interest (SSSI) being Cwm Taf Fechan Woodlands and Cwm Glo A Glymduyrys. The proposed development would not have any impact on the SSSI's. Many of the features that occur within the SINC's do not occur near the proposed site. In this regard, the survey report considers the area around the application site to support a range of different habitats, but these are generally common and widespread species. The proposed development would mostly have a direct

impact on species-poor grassland and scrub with negligible value for nature conservation.

The survey report identifies the potential for scrubby habitats along the northern and southern boundaries of the site, particularly for foraging bats. However the potential impact on the small number of bats likely to be present within the vicinity of the site is considered to be low. Furthermore, the survey report considers the potential impact on reptiles, birds and small mammals to be low and suitably mitigated by cutting back the scrubby areas a week before works commence on site outside of the bird nesting season.

The Ecological Survey is considered to be sufficiently detailed to assess the potential impact of the proposed development. In this regard the Town Planning Division's Countryside Officer agrees with the conclusions of the report that the development would have a negligible impact on potential habitats or protected species. A suitably worded condition is suggested to be attached to any permission granted relating to the clearance of long grass and scrub before works commence on site.

For the reasons above, it is considered that the proposed development would not have an adverse ecological impact and appropriate mitigations can be implemented. Accordingly, the proposal would comply with Policy BW5 of the LDP.

Landscape and Visual Impact

The landscape value of an area is an important criterion in judging a site's suitability to accommodate wind turbine developments. The extent that a wind turbine may impact on the surrounding landscape is derived from physical changes that may cause a change in character, and how the landscape is experienced and valued.

Through an assessment of sensitivity and magnitude of effects on landscape character areas, judgements can be made on the potential effects and whether the introduction of a single wind turbine in isolation and cumulatively, would have a significant impact or not on local conditions and circumstances.

A Landscape and Visual Appraisal (LVA) has been submitted in support of this application and is accompanied by a series of figures and photomontages to inform the assessment of the development. The study area within which effects on landscape character and visual amenity are judged extends to 10km from the location of the proposed turbine and up to 15km as part of the cumulative assessment. The LVA and supporting documents are considered to provide a comprehensive assessment of the likely impacts on the landscape character and the receptors within the landscape. In this regard the methodology used is considered to be appropriate and in line with current best practice guidelines.

The formation of 'Landscape Visibility Zones' has been utilised within the LVA to establish the impact on landscape character, of which a total of 6 zones were identified. The LVA considers the development to largely have a low and not significant impact on each of the Landscape Visibility Zones, both in terms of the effect of the proposed turbine in isolation and cumulatively with other turbine developments.

The LVA does acknowledge that the proposed turbine would, in some locations, have a moderate-high magnitude for change on the landscape, particularly when seen from elevated areas and in locations closer to the turbine. However, it is considered that the presence of the turbine would not alter the landscape character given the existing influence of large scale built form.

To further inform the LVA, a total of 8 representative viewpoints were selected to demonstrate the typical nature and extent of visibility of the development. It is concluded that Viewpoints 3-8 would likely have a minor or moderate impact on the landscape, with the effects considered to be not significant. In regards to Viewpoints 1 and 2, (Merthyr Common and Pant Cemetery) the proposed development is considered to have a moderate/high and moderate cumulative impact respectively, with both having significant visual effects on the landscape.

The LVA notes the relationship between the proposed turbine and the existing turbine at Plot 5 in Viewpoint 1, is such that it would likely be perceived as a single development. However the proposed turbine at Blaen Morlais (subject of the separate application, as yet undetermined) is likely to be seen as a separate cumulative entity within the same field of view.

With reference to Viewpoint 2, the LVA suggests that the existing turbine and this proposal would likely be viewed as two separate individual developments within the landscape. This notion is not entirely agreed with. It is considered that the separation distance between the two turbines could still be read as a single development given their reasonable proximity to the existing industrial units and pylons.

The proposed turbine at Blaen Morlais is currently undetermined. Whilst it is necessary to consider its impact as part of the cumulative assessment of this proposal, significant weight cannot be given to the potential outcome of that application. With this in mind it is considered that in the event the wind turbine at Blaen Morlais turbine is not taken forward, the cumulative impact of this proposal, in respect of Viewpoints 1 and 2 would likely be less than that identified in the LVA.

The overall conclusion of the LVA is that *'the profile, context and character of the site and the surrounding landscape lends itself to a small turbine scheme of the form and scale proposed...the site represents an opportunity to accommodate*

the Pengarnddu wind turbine without unacceptable change to landscape character and visual amenity experienced within the surrounding landscape and associated communities, whether in isolation or cumulatively with other wind energy schemes within the study area'.

It is acknowledged that the Town Planning Division's Landscape Architect has raised a number of concerns at the potential impact of the development, which is largely focused on the cumulative effects on the landscape and visual amenity.

There are concerns that the development cumulatively, with multiple turbines in the area, would dominate the landscape. The introduction of additional turbines would add to the visual clutter, particularly when seen in relation to other vertical features in the landscape, such as pylons, which add to the cumulative impacts. There is also concern that the development would impact on the recreational use of Penywern Ponds (discussed later in this report), Pant Cemetery and the general community of Pant. Notwithstanding these concerns the Town Planning Division's Landscape Architect has not raised an objection to the proposal.

Due to the nature of the proposal, it is inevitable that the proposed development would have an impact on the surrounding landscape, both in isolation and cumulatively with the existing turbine on Plot 5 and other proposed wind turbine developments in the area. The LVA has appropriately considered the potential impacts and concludes that the presence of the proposed wind turbine in the landscape could be reasonably accommodated without adverse harm. In this regard it is considered that the character and integrity of the historic landscape and countryside would be maintained.

To varying degrees, there would be an impact on the visual amenity, with greatest impacts occurring where visual receptors are in close proximity to the proposed development. Due to the nature of the development, it would be impractical to screen the wind turbine from certain viewpoints, where it would be seen in relation to other vertical features in the landscape. Given the location of the development within an industrial site and in close proximity to an existing wind turbine, pylons and communication masts, it is considered that the proposal can be accommodated and would not adversely alter the character or visual amenity of the landscape.

Regard has been had to the potential cumulative impacts, as a result of other wind turbine developments in the area, such as that proposed at Blaen Morlais Farm (Ref P/13/0383) and Plot 1 Pengarnddu Industrial Estate (Ref P/14/0117). Whilst these developments would likely give rise to greater cumulative effects on the landscape and visual amenity, the outcome of these applications are yet to be determined. Therefore this application should be determined on its own merits and significant weight should not be given to other proposals in the determination of this application.

For the above reasons the proposal is considered to comply with Policies BW5, AS4 and TB7.

Archaeological & Cultural Heritage

The application site and much of the main settlement of Merthyr Tydfil are located within the Landscape of Historic Interest as defined on the LDP Proposals Map. This landscape designation also forms part of the Register of Landscapes of Outstanding Historic Interest in Wales.

To assess the potential impact of the proposed development on the historic landscape and any other historic designations, an Assessment of the Significance of the Impact of Development on Historic Landscapes (ASIDHOL) was submitted in support of the application.

Based on the Zone of Theoretical Visibility (ZTV) the blade tip of the proposed turbine may be seen from registered historic landscapes, such as Gelligaer, East Fforest Fawr and Mynydd-y-Glog and Rhondda. However, the ASIDHOL considers any outward views from these areas to be negligible. As such, the assessment focuses on the potential impacts on Merthyr Tydfil historic landscape.

Within the historic landscape the ASIDHOL (Section 2.24) identifies 79 Historic Landscape Character Areas (HLCA) of which, 8 of these have been carried forward as part of the detailed study, due to their proximity, extensive views, representativeness and value to the historic landscape.

In terms of direct impacts on any historic assets, the ASIDHOL considers the location of the proposed turbine would result in a 'very slight' loss of land within the Dowlais Top HLCA. There would be no impact on any known archaeological assets or indirect physical impacts arising from the development. In this regard it is noted that Glamorgan Gwent Archaeological Trust has raised no objection. Therefore, the primary concern is the potential visual impact on the HLCA's.

The ASIDHOL indicates that the views which would be most affected by the development would mainly be from immediate surrounding character areas with long distance views from the south and west. The magnitude of impact on each of the 8 HLCA's is set out in tables 12 – 19 of the ASIDHOL. The development is largely considered to have a moderate impact on the different HLCA's. However, the presence of the turbine is not considered to adversely alter or impact on the views from the respective HLCA's. The overall significance of any impact is considered to be moderate for Merthyr Common and Morlais Castle HLCA's and only slight for all other areas. Additionally, it is concluded that the overall visual effect of the proposed development would be very small and would not degrade the historic characteristics of the Merthyr Tydfil historic landscape.

Concerns have been expressed by the Town Planning Division's Design, Heritage and Conservation Officer, particularly in relation to the potential cumulative impacts of the development on the historic landscape in the Pengarnddu and Blaen Morlais areas. It is argued that the proposed turbine would introduce a vertical feature in to the landscape. When seen in relation to existing pylons and communication masts, the development would create visual clutter. The presence of these existing vertical elements within the landscape is not a sufficient reason to allow further intrusions. Furthermore, it is commented that the turbine would introduce a new element that neither protects, conserves or enhances the historic landscape. Notwithstanding these concerns, no specific objection has been raised to the proposal. Nor have there been any objections raised by Cadw or Brecon Beacons National Park.

Policy BW6 of the LDP supports development proposals where it can be demonstrated that the architectural quality, character and setting of the townscape and built heritage would be preserved or enhanced. By virtue of the proposed development having a moderate impact on the identified HLCA's, it cannot be said that the development would either preserve or enhance these areas. However, the conclusions of the ASIDHOL adequately demonstrate that the development would not cause significant harm.

Policy AS4 of the LDP states that there is a presumption in favour of the protection, conservation and enhancement of the historic landscape and development should only be permitted where it maintains or enhances the character and integrity of the landscape. It has been demonstrated in the ASIDHOL that the significance of any impact resulting from the development would mainly be slight, but would be moderate for the Merthyr Common and Morlais Castle HLCA's. The proposed development is not considered to significantly impact on the character areas of Merthyr Common and Morlais Castle due to the expansive views, where the wind turbine would be seen as a minor element in the landscape, within the context of industrial units, pylons, communication masts and another turbine.

Although there would be a cumulative impact on the landscape with the turbine adding to a cluster of vertical elements, it is considered that the landscape can accommodate the development without significant harm. In coming to this conclusion it is considered that the presence of the proposed turbine would not significantly alter the panoramic views from the identified HLCA's, nor would it give rise to a dominance of wind turbines that form the primary feature of the landscape. On this basis, the development is considered to largely maintain the character and integrity of the historic landscape and the HLCA's.

Residential Amenity

When considering the potential residential impacts the main issue is whether the size and proximity of the turbine would have such an overwhelming and

oppressive visual impact on a dwelling and its garden that they would result in unsatisfactory living conditions and so unacceptably affect amenities and the use of the land and building which ought to be protected in the public interest.

The nearest residential property is Castle Row which is approximately 0.2km away from the site. This property is financially involved with the project and is therefore not considered to be a sensitive property. There are also three residential properties at the eastern part of the Pengarnddu Industrial Estate, located approximately 0.5km away from the proposed turbine. The residential properties within the Dowlais and Pant areas are located approximately 0.45km and 0.7km away from the proposed turbine respectively. It is considered that the proposed turbine is of a sufficient distance away from these properties to not give rise to direct physical impacts i.e. overbearing impacts.

To assess the potential impact of the proposed development on the surrounding residential areas, additional viewpoints were considered as part of the Landscape Visual Appraisal. This was submitted as part of an Additional Residential Viewpoint Appraisal (ARVA) Report Addendum. A number of concerns were raised by local residents in the Pant area on the potential visual impacts of the development. With this in mind, the viewpoints selected were intended to represent the residential receptors, and largely cover the greater area of Pant, of which views within prominent locations were favoured. The ARVA considers four areas in detail, being Pant Road, Brecon Rise, Tai'r Twynau and Penywern Ponds and are referred to in the report as Viewpoints, A, B, C and D respectively. The considerations provided in the ARVA report are agreed with.

To varying degrees, the proposed turbine would be an immediately apparent feature within each of the viewpoints considered, with the turbine punctuating the skyline. In most cases the turbine would be seen in relation to a number of existing pylons, communication masts and industrial buildings, which to some extent dilutes the potential impact of the development. Views of the wind turbine within the residential area of Pant would also likely be intermittent as you travel along the roads, due to the built up nature and varying levels of the area.

Whilst the ARVA report considers the impact of the development to have a major-moderate effect on Pant Road and a moderate effect on Brecon Rise and Tai'r Twynau, the overall effect is not considered to be significant. There is no doubt that the visual amenity would be considerably influenced by the presence of the turbine. In particular, Viewpoint A illustrates the turbine along Pant Road to be prominent in an area with high sensitivity to receptors, hence it is assessed as having a major-moderate impact. However, given the narrow view, funnelled by development on either side of the road, it is considered in the ARVA report that the presence of the turbine would not be a defining feature of the view.

It is noted that a small number of dwellings within the cul-de-sac of Tai'r Twynau and Nant Morlais would have a direct outlook towards the proposed wind turbine.

The majority of the dwellings along Glanmorlais are situated with a south-west to north-east orientation. As such, there would be a limited outlook towards the turbine itself, but would be visible from the private garden areas.

The proposed turbine would have the greatest impact from Penywern Ponds (Viewpoint D). It is clear that the proposed turbine would be dominantly visible and would have a substantial effect on the view experience. This area attracts visitors for recreational purposes such as walking and cycling along the Heads of the Valleys cycle route. The ARVA report considers the impact of the development to be major-moderate and the overall effect to be significant. This is due to the turbine being seen at a close distance, with all but the base of the turbine visible, resulting in a high magnitude for change on the view. When considered in context, there are a number of pylons, which are equally of a dominant scale and presence in this particular area and are closer to Penywern Ponds. There are also a number of industrial units visible, which vary in prominence as you travel along the cycle route. It is considered that the views towards the proposed turbine in this area are not of a sufficient quality that would otherwise be adversely affected by the presence of the turbine, given the existing features in the area.

It is noted that a viewpoint has not been selected from the residential properties in Dowlais Top. The majority of this area would likely have intermittent views of the turbine, but would remain largely obscured by existing properties. It is considered that the proposed turbine would be seen from some of the properties, such as those along Coedcae Row, Station Terrace and Blaen Dowlais, where there are more open views across to the application site. For the same reasons discussed above the proposed turbine would be seen as an obvious addition to the views but within the context of other vertical elements such as pylons and communication masts. In this regard, it is noted that no concerns have been raised by local residents within the Dowlais Top area as a result of the publicity exercise carried out.

In terms of the potential cumulative impact, in most cases the proposed development would be seen in relation to the existing turbine within the industrial estate. However, in Viewpoints A, B and C only the rotor and turbine hub would be visible, with the majority of the mast obscured by the land form. In viewpoint D there would be a greater cumulative impact with a larger proportion of the existing turbine being visible with the proposal.

Whilst the proposed turbine at Blaen Morlais has been considered as part of this residential study, this is yet to be determined and the primary focus has been on the cumulative effects with the existing turbine. Nevertheless, it is considered that the proposed turbine at Blaen Morlais and that at Plot 1 Pengarnddu Industrial Estate, would likely result in a greater cumulative impact.

It is acknowledged that the Town Planning Division's Landscape Architect has not raised an objection to the development. However, concerns are maintained over the potential visual impact for the residents of Pant, particularly those at or close to Caeracca. It is evident that the proposed turbine would be visible from the surrounding residential area, particularly on the fringes nearest the application site. It is considered that there is sufficient separation distance between the residential properties and the development, together with other notable vertical features in the landscape that allow the development to be reasonably absorbed in the views. It is considered that there is capacity for the landscape to accommodate the proposed turbine, cumulatively with the existing turbine, without adversely altering the views that would otherwise unacceptably impact on the residential amenity.

Therefore the proposal complies with PPW and Policy TB7 of the LDP.

Noise

It is noted in TAN 8 that wind turbines should be suitably located so that increases in ambient noise levels around noise-sensitive developments are kept to acceptable levels in relation to existing background noise.

Noise levels generated by wind turbines are generally low and in most operating conditions will be completely masked by wind-generated background noise. It is identified in TAN 8 that there are two distinct types of noise sources derived from a wind turbine; the mechanical noise from the gearbox, generator and other parts of the drive train; and the aerodynamic noise produced from the passage of blades through the air.

To determine the potential impact that the proposed development would have on the surrounding area, a Noise Feasibility Assessment was prepared by Ion Acoustics in support of the application. The study area has identified three groups of residential properties that would be affected by the noise generated (35db and above) by the proposed wind turbine. The properties are referred to as Pengarnndu (Castle Row), Coedcae Row Terraces and 13-24 Station Terrace.

The worst affected property would be Castle Row, which is situated approximately 222m north of the proposed development. Whilst the noise levels at this property would be expected to be within the higher limit of 45db, the occupiers are financially involved with the development. Therefore, they would not be deemed to be a noise sensitive property.

The terraced properties along Caedcae Row and Station Terrace would be approximately 463m and 483m away respectively from the proposed development. Taking into account the average wind speed at a height of 10m, it is predicted that the noise level from the proposed wind turbine experienced

cumulatively with the existing turbine at the nearest dwelling, should not exceed 36db. The proposed development is not expected to exceed the existing background noise by 5db, which is expected to be greater than 35db in this area most of the time. As such the development would not compromise residential amenity. In this regard it is acknowledged that the Environmental Health Manager has raised no objection to the proposal subject to conditions relating to the monitoring of noise levels.

Therefore the proposal is not considered to be a source of unacceptable noise and disturbance and complies with the advice set out in TAN 8 and TAN11.

Shadow Flicker

Under particular circumstances when the rotating blades pass between the sun and an observer, this can produce an intermittent shadow that flickers. It is recognised in Annex C, Para 2.32 of TAN8 that shadow flickering is seasonal and is only present for a few hours a day. However, where it impacts on nearby properties it can be disturbing for those occupants and should therefore be properly assessed.

A shadow flicker assessment has been submitted in support of the application comprising a statement from the agent and a 1:5000 scale Shadow Flicker Zone plan. The assessment considers the potential impact of shadow flickering on nearby properties located within 300m radius of the wind turbine base (10 times the length of the rotor diameter). The worst affected properties are likely to be those within the 300m zone and within 130 degrees either side of north, relative to the wind turbine.

The assessment only identified the dwelling at Castle Row to be potentially affected by the shadow flickering as a result of the proposed development. However, this property has a financial involvement with the project. As such, the proposed development would not give rise to an unacceptable nuisance to nearby residential properties and does not necessitate any mitigation measures. Nevertheless, the agent states that the situation would be monitored during the first year of operation. If an issue was subsequently established, the principle method of mitigation available would be to close down the wind turbine at particular times where shadow flicker effects would be predicted.

Ground Conditions

An on-site investigation to determine the ground conditions in the location of the proposed wind turbine and hard standing area has not been carried out. However, in support of this application a Mining Risk Assessment has been submitted. It is noted that the assessment does not specifically relate to the site, but an area of land to the south-west. However, it is considered that the circumstance would not differ greatly between the area that has been assessed

and the application site. The assessment concludes that the area is not located within a zone of likely physical influence from past, present or future mining operations. In this regard it is noted that the Engineering and Highways Manager has not raised any concern with ground stability. However, an appropriately worded condition is requested for the submission of foundation details and calculations prior to works commencing on site.

It is acknowledged that the Environmental Health Manager considers the application site, like the majority of land within Pengarnddu Industrial Estate, to be potentially contaminated. Nonetheless, a condition has not been requested to address any potential contamination, given the nature of the proposed development with the construction of a hard standing area across a large part of the site.

Highways

The existing access road serving the application site is currently used in connection with a number of large commercial and industrial type uses that are frequently visited by heavy goods vehicles on a daily basis. It is considered that this access road is of a suitable standard and construction to accommodate the necessary construction traffic associated with the proposed development.

A hardstanding area would be created within the site to be used during the construction of the wind turbine and utilised as a crane set down area. The hardstanding would also be of a sufficient size to accommodate two cranes with associated turning facilities for large vehicles.

It is considered that the greatest impact on the highway infrastructure will be during the construction phase of the wind turbine. A Transport Management Plan has been submitted in support of this application. This report indicates that a small number of vehicle movements would be required during the construction phase of the development, none of which are classified as 'abnormal loads'. It is anticipated that the development would result in approximately 6 HGV movements in total including support vehicles for the cranes.

The components of the wind turbine development would be transported by road using a combination of strategic and local highway networks. It is anticipated that the construction traffic would travel north along the A470 trunk road and then head east along the A465 trunk road until it reaches the roundabout adjacent to the Asda superstore, where it would turn into the Pengarnddu Industrial Estate and utilise the local roads leading to the site.

It is considered that the proposed development would result in a small increase in the level of traffic in the area. However, given the industrial/commercial nature of the area and the current daily use of this highway by HGVs, it is considered

that the level of traffic generated would not have an adverse impact on the highway network. Furthermore, the existing highway is considered to be of an adequate standard to accommodate large vehicles and cranes to the site.

In this regard it is noted that the Engineering and Highway Manager has raised no objection to the proposed development. Therefore the proposal is considered to be acceptable in terms of highway safety and complies with national policy and LDP policy BW12.

Communication Network / Aviation Impact

The erection of a wind turbine has the potential to create electromagnetic interference to telecommunications apparatus and can affect the operation of civil and military activities. The Planning Statement indicates that the applicant has consulted Arqiva and the Ministry of Defence to establish any potential impact on communications hardware and operations.

A response from those authorities was not provided prior to the submission of the application. However, following the consultation exercise undertaken as part of this application, it is noted that both Arqiva and the Ministry of Defence have raised no objection to the proposed development. It is noted that in a series of email communications between the agent and Arqiva, it was agreed that the developer may be required to make a financial contribution to reposition one of the existing antenna's to a new aperture on the communication tower. No additional comments were received from any of the other communications operators. Accordingly, the proposed development is not considered to have an adverse impact on the telecommunications apparatus or interfere with civil or military aviation.

Planning Obligations

National policy supports the approach of securing planning obligations through legal agreements from businesses to deliver particular and agreed benefits to the community.

As stated in Annex B of TAN 8, planning obligations may be sought by means of a financial contribution towards:

- (i) Highway infrastructure improvements outside the application site;
- (ii) Wildlife habitat management or creation in mitigation for adverse impacts of the construction; or
- (iii) Payments to overcome adverse implications for communication networks such as TV or radar.

Given the suitability of the existing highway infrastructure together with the minimal impacts on any habitats or communication networks, it is considered that a financial contribution is not required in this instance.

Representations

The main issues raised by local residents have largely been addressed in detail in the relevant sections of the report above. However, the following comments are made in respect of other matters raised:

- No evidence has been submitted demonstrating that the proposed wind turbine would result in health problems to local residents. Matters relating to noise, shadow flicker and visual impacts, which may impact on residents, have already been addressed above.
- The proposed turbine would be located on land within an existing industrial estate and not on any common land.
- There is no evidence that the proposed turbine would cause any physical damage to local residents or users of nearby recreational facilities in the area.
- Any impact on the value of properties in the surrounding area is not considered to be a material planning consideration.
- The proposed wind turbine is not considered to have an adverse impact on tourism or the local economy. This conclusion is supported by the recent study commissioned by the Welsh Government - Study into the Potential Economic Impact of Wind Farms and Associated Grid Infrastructure on the Welsh Tourism Sector, February 2014.

CONCLUSIONS

The proposed turbine would be located on an area of scrub land within an existing industrial estate that is generally supported by Policy TB7 of the LDP. The development would also contribute to the Welsh Government's commitment to optimising renewable energy generation, as set out in Section 12 of PPW.

The principle considerations in the determination of this application relate to the potential impacts on the character/quality of the historic landscape and the visual amenity from nearby residential and recreational areas. Of particular concern, is the potential cumulative impact with existing and proposed wind turbines in the vicinity, along with other vertical elements visible in the landscape. For the reasons set out above, it is considered that the proposed development can

reasonably be accommodated within the landscape without significant harm to its character and integrity.

The proposal would run contrary to Policy BW6 (Townscape and Built Heritage), by virtue, of the turbine having a moderate impact, which cannot be reasonably said to either preserve or enhance the setting of the built heritage. It is however considered that the development would reasonably maintain the character and integrity of the historic landscape, therefore, it would comply with Policy AS4 (Historic Landscape) of the LDP, which deals more specifically with the impact on the landscape of historic interest.

On balance, it is considered that the harm caused by this development does not outweigh the objectives of Policy TB7, which looks favourably upon development proposals that meet national and local renewable energy targets. This is further supported by the commitments set out in PPW, as part of the Welsh Governments vision for future renewable energy production.

Accordingly, the following recommendation is made:

RECOMMENDATION: BE APPROVED subject to the following **CONDITIONS**

1. The development hereby permitted shall be begun before the expiration of five years from the date of this permission.

Reason - To comply with Section 91 of the Town and Country Planning Act 1990.

2. The permission shall be for a period of 25 years from the date when electricity is first generated to the grid. This date shall be notified in writing by the developer to the Local Planning Authority. Not later than 12 months before the expiry of this 25 year timescale the following schemes shall be submitted to and approved in writing by the Local Planning Authority:

- a) the removal of all surface elements of the wind farm and the foundations of the wind turbines to 300mm below ground level.
- b) the restoration and aftercare, following consultation with such other parties as the Local Planning Authority considers appropriate.

The approved schemes shall be implemented within 12 months of the expiration of the 25 year timescale.

Reason - To ensure derelict and obsolete structures do not adversely affect the environment.

3. The external finish and colour of the wind turbine hereby approved shall be submitted to and approved in writing by the Local Planning Authority BEFORE the turbine is erected on site and all works undertaken shall be completed in accordance with such approved details.

Reason - To minimise any flashes of reflected light and in the interest of visual amenity, particularly in relation to other nearby wind turbine developments.

4. No part of the development shall display any name, logo, sign, advertisement or means of illumination without the prior written approval of the Local Planning Authority.

Reason - In the interest of visual amenity.

5. Construction works relating to the development shall not take place other than during the following times:

Mondays to Fridays - 08:00hrs to 16:00hrs

Saturdays - 09:00hrs to 14:00hrs

Not at any time on Sundays, Bank or Public Holidays unless otherwise agreed in writing by the Local Planning Authority.

Reason - To ensure that the noise emitted from construction works is not a source of nuisance to occupants of nearby residential properties.

6. **BEFORE** works commence on site, details relating to surface water drainage, incorporating SUDS principles where appropriate, shall be submitted to and approved in writing by the Local Planning Authority. All works shall be carried out in accordance with the approved details and completed before the operational use of the wind turbine.

Reason - To ensure the development meets with current drainage/engineering requirements and does not adversely impact on the adjoining highway and neighbouring properties.

7. At wind-speeds between 0m/s and 12m/s, the maximum cumulative wind turbine noise level experienced at nearby noise sensitive properties shall not exceed, either:

- a) LA90,10 mins of 5dB(A) above the existing background noise level at any time,

Or

- b) LA90, 10 mins of 35dB(A) between 07:00 and 23:00 BST and 43db(A) between 23:00 and 07:00 BST

Whichever value is the greater.

At noise sensitive properties with a financial involvement in the turbine the noise level experienced shall not exceed LA90,10mins of 45dB(A).

The cumulative wind turbine noise level shall include the noise generated by other turbines within the surrounding area. The background noise level shall exclude the noise generated by other wind turbine developments in the area.

Reason - In the interests of amenity and to ensure the operation of the turbine is not a source of nuisance to nearby residential properties.

8. At the reasonable request of the Local Planning Authority and following a complaint to the Local Planning Authority, the developer or any subsequent owner(s) of the turbine, shall measure at its own expense, the level of noise emissions from the turbine, inclusive of existing background noise, using a LA90, 10mins index over a minimum of 20 periods each of 10 minutes duration.

At least 10 of these measurements shall be carried out between wind speeds specified by the Local Planning Authority. Measurements shall be made in consecutive 10 minute periods provided they fall within the wind speeds requested by the Local Planning Authority. Measurements shall be made available to the Local Planning Authority at their request.

Reason - In the interests of residential amenity by ensuring an acceptable noise level for the occupants of noise sensitive properties

9. During the operational use of the wind turbine hereby approved, the blade rotation shall move in a clockwise direction at all times.

Reason - To ensure that the wind turbine blades rotate in the same direction as any other wind turbine in the area.

10. **NO DEVELOPMENT** shall take place until a structural design certificate, completed and signed by a Chartered Engineer, and a scheme to deal with existing ground conditions has been submitted to and approved in writing by the Local Planning Authority. The Certificate shall certify that an additional appropriate site investigation has been carried out at the site. The scheme shall include an investigation and assessment to identify those precautions or measures deemed to be required in the design and construction of the proposed development in order to minimise any

damage which might arise as a result of ground conditions. The scheme shall be constructed in accordance with the approved structural design.

Reason - To ascertain the stability of the site and to determine the structural suitability of the development thereon in view of prevailing ground conditions and to ensure that no development is undertaken which may be prejudiced by existing ground conditions.

11. **BEFORE** works commence on site, a management plan shall be submitted to and approved in writing by the Local Planning Authority. The plan shall include details for the appropriate clearance of any scrub or long grassed areas affected by the development hereby approved, together with the removal of any fly tipping, in accordance with the recommendations set out in Section 5 of the Ecology Survey, dated February 2014.

Reason - To ensure any reptiles within the site have opportunity to move to neighbouring suitable habitats and reduce the height of vegetation under the proposed turbine, further limiting the proximity of airborne protected species.
