

**APPLICATION NO:** 13/1241/10 (EL)  
**APPLICANT:** Infinite Renewables Limited  
**DEVELOPMENT:** Erection of a single 500kW wind turbine and associated transformer enclosure.(Additional information - Addendum to Landscape and Visual Assessment received 15/05/14).

**LOCATION:** LAND AT RHIGOS ROAD, ABERDARE  
**DATE REGISTERED:** 27/11/2013  
**ELECTORAL DIVISION:** Rhigos

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**RECOMMENDATION:** Approve

**REASONS:**

The principle of the development is considered acceptable, being a small scale wind development that would contribute to the Welsh Government's commitment to optimising renewable energy generation. Furthermore, it is considered that the proposed development can reasonably be accommodated within the landscape without significant harm to the existing landscape character of the area and visual amenity. In addition, no objections have been raised by statutory consultees with respect to the potential impacts upon either the amenity of nearby residential properties, highway safety or ecology.

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**APPLICATION DETAILS**

Full planning permission is sought for a single 500kW wind turbine on land at Rhigos Road, Rhigos. The turbine would have a maximum height of 78m above ground level, comprising of a hub height of 50m and a rotor diameter of 56m.

The turbine would sit on a reinforced concrete foundation base which would comprise of an cross-shaped layout with a maximum width of 11m and to a depth of 1.95m, which would be buried below the ground. The visible base would be circular and approximately 3.05m in diameter standing proud 0.95m above the ground.

The turbine would be constructed of galvanised steel with 3 blades of reinforced polyester and would be finished in a light grey colour.

There would also be a hard-standing area of approximately 35m by 15m to cater for the cranes required to construct the wind turbine and a vehicular turning area.

The turbine would be connected to the national grid by means of an underground cabling.

The proposal also includes the construction of a small enclosure which would measure 6.05m x 2.99m x 2.82m high. This would house a transformer, associated switch gear and electrical protection equipment. This would be located immediately to the south of the proposed turbine base and would be connected to the grid connection point via underground cabling.

The Planning Statement comments that the turbine is a variable speed, pitch, controlled wind turbine. The 500kW turbine would generate approximately 1,789MWh of electricity per annum, working directly towards the Welsh Governments regional and national targets for the supply of energy from sustainable energy sources. The electric generated by the turbine would be exported to the local distribution network and sold to a licensed electricity supplier.

The turbine is expected to have an operational life of 25 years, thereafter the wind turbine together with the ancillary equipment would be dismantled and removed from the site and the below ground infrastructure would be covered with top soil to allow natural vegetation.

It is proposed that access to the site be gained via an existing track that connects with Rhigos Road to the far north of the site. The applicant has confirmed that no improvement works to the track itself (which lies within their control) are proposed.

The construction period is likely to occur over a 2 month period. Delivery of some of the components would constitute abnormal loads. Maintenance would be likely to occur 2-3 times a year during the life of the turbine.

The application is accompanied by a number of documents including a Design and Access Statement, a Planning Statement which includes technical data about the wind turbine, a Landscape and Visual Impact Assessment (LVIA) (with addendum dated May 2014), an ecological assessment, a noise report and a shadow/light flicker analysis.

## **SITE APPRAISAL**

The site is located in an area defined as countryside, outside the settlement boundary. The site itself extends to an area of approximately 0.25ha and lies to the far south of Rhigos Road. Access to the site is gained via an existing track which connects with Rhigos Road (to the north). To the far east of the site is the Rhigos Mountain Road (A4061).

The proposed turbine is located on a reclaimed opencast coal site within established improved pasture, bounded by field boundaries of hedges, fences and woodland belts. The site lies east of the settlement of Rhigos and around

700m south of the Hirwaun industrial estate. To the east are active opencast coal workings and to the south west lies the Tower colliery complex, currently shut. The turbine lies at around 250mAOD north west of the scarp slope which rises around 200m in height to Hirwaun Common at around 500mAOD. The dramatic glacial cwm of Craig y Llyn, which reaches 570mAOD lies 2.4km to the south west. These slopes are within a Special Landscape Area (SLA 25.8 Hirwaun Common, Cwm Dare and Cwm Aman). The valley bottom divides between the Neath and Cynon rivers catchments flowing west and east respectively lies at 210mAOD to the north. The Brecon Beacons National Park boundary lies about 1.3km to the north, just beyond the Hirwaun Industrial Estate, rising up to Moel Penderyn at around 3.4km, as the nearest high point with views south. There are other elevated areas of the Park to the east and west as well as the main peaks to the north. The direct environs are relatively free of vertical elements although pylons run to the north between the proposal and Hirwaun Industrial Estate. A Public Right of Way (PROW RHI/25/4) runs in a west – east direction, approximately 390 metres to the south of the site.

The existing windfarm of Maesgwyn is located around 5km to the west at a similar elevation. The consented Pen y Cymoedd and Mynydd y Bwllfa windfarms will lie just over 2.5km and 3.5km away respectively on the coalfield plateau just to the south.

Whilst not strategic scale development, it is noted that the proposal lies outside the TAN 8 Annex D Strategic Search Area [SSA] F and outside the refined area.

## **PLANNING HISTORY**

There is no relevant planning history on the site in question.

## **PUBLICITY**

The application has been advertised by means of direct neighbour consultations, site notices and press notice. 12 letters of objection have been received which are summarised as follows:

### Impact upon residential and other neighbouring properties

- A number of residents express concern with regard to the proximity of the turbine to their properties.
- A number of residents comment that the turbine would be clearly visible from their properties. It would form a defining view from the windows of their properties.
- Residents consider that the development would have a detrimental effect on the value of their property.
- Concern is expressed with regard to the noise likely to be generated by the turbine, since it is noted that wind speeds in the

area are 'above average for the UK'. Concern is expressed that the noise is likely to be intolerable and would combine with traffic noise from the Heads of the Valleys Road that is also audible, depending on wind direction.

- Concern is expressed that given the proximity of the turbine to residential properties, this presents a physical danger to individuals. It is commented that there have been instances where fires to turbines and structural failures in extreme weather can result in debris being spread over an area of 1.5km, placing lives and property at risk.
- Concern is expressed by an adjoining landowner that the development may cause shadowing, which in turn may compromise their potential plans for solar development on their land.
- It is commented that the development would be overbearing and unacceptable to the largely rural village of Rhigos.

### Visual impact

- It is commented that the proposal would introduce a prominent, new and notable vertical element, which will rise well above the intervening hedgerows.
- Concern is expressed with regard to the height of the turbine.
- It is commented that the turbine would be out of proportion with any natural feature or development in this area.
- Concern is expressed that the proposed turbine would break and blemish the beautiful landscape, adversely affecting the Special Area of Conservation.
- It is commented that Rhigos has seen enough commercial/ industrial development over the years, including the open cast mining and that residents do not want turbines.
- The location of the turbine is considered unacceptable in an area that is rural and is noted for its beauty, tourism and archaeological history.
- Concern is expressed that this will set a precedent for further wind turbines in nearby locations.

### Highway Safety

- It is commented that the development will have significant implications in terms of an increase in mechanical, electrical and civil traffic through the village and an incremental increase in noise generally.

### Other matters

- Concern is expressed with regard to the impact of the turbine on the environment.
- Concern is expressed with regard to the effects of the development upon wildlife, particularly birds, in the vicinity of the site.
- Health concerns are also raised in relation to the operation of the turbine and effects upon nearby residents.
- Concern is raised with regard to the stability of the land, as a result of the possible presence of old mine workings.

## **CONSULTATION**

Transportation Section - no objections raised, conditions requiring the submission of a road condition survey and Traffic Management Plan recommended.

Land Reclamation and Drainage – condition requiring the submission of a drainage strategy recommended.

Public Health & Protection – no objections raised, conditions relating to noise limits recommended.

Council's Ecologist – considers that the ecological survey/assessment work is adequate and raises no objections. Condition requiring the submission of a Species and Habitat Protection and Mitigation Plan for construction recommended.

Natural Resources Wales – no objections raised, conditions recommended.

Glamorgan Gwent Archaeological Trust – no objections raised. The Historic Environment Record contains no information on any known features or find spots, or Registered Landscapes that would be affected by the proposal. It is therefore unlikely that any archaeological features would be disturbed during the course of the development.

Defence Infrastructure Organisation– no objections raised. Requests that the turbine is fitted with aviation lighting.

Vodafone UK - no objections raised.

Brecon Beacons National Park – no objections raised. The impact on the special qualities of the National Park is seen as minimal and not significant enough to outweigh the benefits to environmental sustainability that the proposal represents.

Merthyr Tydfil CBC – no objections raised.

Neath Port Talbot CBC – no objections raised.

Rhigos Community Council - objections raised on the grounds of visual impact, sound pollution and shadow effect on Rhigos village.

## **POLICY CONTEXT**

### Rhondda Cynon Taf Local Development Plan

The site is located outside of settlement limits in the countryside, within a primary and secondary coal resources safeguarding area.

**Policy CS1** outlines how the emphasis on building strong, sustainable communities will be achieved in the Northern Strategy Area.

**Policy CS10** defines safeguarding areas for mineral resources.

**Policy AW5** supports development proposals where amenity and accessibility matters are addressed.

**Policy AW6** supports development proposals where certain design and place making criteria are met.

**Policy AW10** does not permit proposals where they would cause or result in a risk of unacceptable harm to health and/or local amenity because of a number of matters including light and noise pollution.

**Policy AW12** permits renewable energy schemes including small/medium sized wind turbines where there is no unacceptable effect upon the interests of certain matters including agriculture, nature conservation, cultural heritage, landscape importance, public health and residential amenity. Minimisation of resource use should also be included. For this policy small clusters of no more than 3 larger wind turbines up to 1.5 MW and community based schemes of no more than 5MW capacity are treated as small wind turbine developments.

**Policy AW14** safeguards the resources of coal from any development which would unnecessarily sterilise or hinder their extraction.

### National Guidance

In the determination of planning applications regard should also be given to the requirements of National Planning Policy which are not duplicated in the Local Development Plan, particularly where National Planning Policy provides a more up to date and comprehensive policy on certain topics.

Planning Policy Wales Chapter 3 (Making and Enforcing Decisions), Chapter 4 (Planning for Sustainability), Chapter 5 (Conserving and Improving Natural Heritage and the Coast), and Chapter 12 (Infrastructure and Services) set out the Welsh Government's policy on planning issues relevant to the determination of the application.

## **Other relevant policy guidance consulted**

PPW Technical Advice Note 5: Nature Conservation and Planning

PPW Technical Advice Note 8: Renewable Energy: The site is located outside of TAN 8 Strategic Search Area F.

PPW Technical Advice Note 11: Noise; This provides advice on the assessment and management of noise impacts for different types of proposals. It refers to advice in TAN 8 regarding the assessment of noise impacts of wind turbines.

## **REASONS FOR REACHING THE RECOMMENDATION**

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that, if regard is to be had to the development plan for the purposes of any determination to be made under the Planning Acts, the determination must be made in accordance with the plan unless material considerations indicate otherwise.

Furthermore, applications that are not in accordance with relevant policies in the plan should not be allowed, unless material considerations justify the grant of planning permission.

### **Main Issues:**

#### **Principle of the proposed development**

At UK and Welsh Government level there is strong support for renewable and low carbon energy, with specific targets set for the reduction in green house gases and energy generation from on-shore wind development. The exploitation of wind power is promoted at all policy levels.

The application involves a wind turbine of 0.5MW and is therefore classed as a small scale turbine in policy terms, being a "sub local authority" scale of development, at under 5MW, within PPW. This scale of development is not required, within PPW, nor TAN 8 to be sited within the boundary of SSA F. Para 12.9.9 of PPW advises that such "renewable energy projects are applicable in all parts of Wales and development plans should encourage such development and clearly set out the local criteria against which such proposals will be evaluated." Paragraph 12.10 of PPW sets out the key matters to be taken into account in determining applications for renewable and low carbon energy development.

Whilst TAN 8 states in Para 2.2 that "large scale (over 25MW) onshore wind developments should be concentrated into particular areas defined as Strategic Search Areas (SSA's)", guidance is also provided for the development of smaller wind developments outside of these areas. In particular paragraph 2.12 states that "The Assembly Government expects local planning authorities to encourage,

via their development plan policies and when considering individual planning applications, smaller community based wind farm schemes (generally less than 5MW).” However, TAN 8 also identifies the need for authorities to consider the cumulative impact of small schemes in areas outside of the SSAs and the need to strike a balance between “the desirability of renewable energy and landscape protection” (2.13).

Policy AW12 of the LDP permits small scale wind turbine proposals subject to a number of criteria against which such proposals will be evaluated.

It is concluded that this is a small scale wind turbine and there is national and local planning policy support for the principle of this proposal, subject to the assessment of a criteria, which includes; the contribution a proposal will play in meeting identified targets and potential for renewable energy; the impact on the landscape, natural heritage and the Historic Environment; the need to minimise impacts on local communities; and effects on the transportation network. There is therefore no objection in principle to the proposed wind turbine, subject to the other material planning considerations being satisfied.

### **Impact on the landscape character of the area and on visual amenity.**

Regarding this main issue Policy AW12 of the LDP, which deals with renewable energy development, states that small scale wind turbines will be permitted where it can be demonstrated that there would be no unacceptable effect on, amongst other matters, landscape importance.

Given the location of the site (which is detailed in full under the ‘Site Appraisal’, it is considered that the main landscape and visual effects of the proposal relate to the following matters:-

- The effects on the character and appearance of the surrounding landscape (Landscape Effects).
- The effects on residents, especially those located on Hirwaun Road and the village settlement of Rhigos (Visual Effects).
- The effects on users of public footpaths,
- The individual and cumulative effects of the proposed wind turbine.

Since it is the landscape and visual effects of the proposed turbine, which are considered to be the main factors that need closest scrutiny, chartered landscape architect, Simon White (White Consultants) was commissioned to assist in the review the Landscape and Visual Assessment (LVIA) submitted to accompany the proposed scheme.

The landscape and visual material submitted to accompany the application includes a Zone of Theoretical Visibility models (ZTV), LANDMAP extracts and assessment, a visual assessment and photomontages from 11 key viewpoints,



with associated assessments. An update to the original LVIA also included an assessment of the cumulative effects of the proposed development.

Having assessed the documents, it is considered that the revised LVIA, which accompanies the application, provides sufficient information and an adequate assessment upon which to base a decision on the acceptability of the proposed wind turbine.

### Landscape Effects

In terms of effect on landscape character, a summary of the effects stated in the Landscape and Visual Assessment (Addendum Appendix 3 of LVIA) is as follows:

<i>Summary of revised Aspect Landscape Planning landscape assessment</i>					
<i>Aspect/area</i>	<i>LANDMAP value</i>	<i>Sensitivity</i>	<i>Magnitude of effect</i>	<i>Positive, neutral or negative effect</i>	<i>Significance</i>
<b>Aspect areas in which the proposal is located</b>					
<i>Geological landscape- Rhigos area CynonGL028</i>	<i>Outstanding</i>	<i>Very High</i>	<i>Low</i>	<i>Neutral</i>	<i>Moderate</i>
<i>Historic landscape - Tower Colliery CynonHL183</i>	<i>High</i>	<i>High</i>	<i>Medium</i>	<i>Neutral</i>	<i>Moderate</i>
<i>Landscape habitats CynonLH053</i>	<i>Low</i>	<i>Low</i>	<i>High in localised areas</i>	<i>Adverse</i>	<i>Moderate/minor</i>
<i>Cultural landscape- Rhigos CynonCL041</i>	<i>High</i>	<i>High</i>	<i>Medium</i>	<i>Neutral</i>	<i>Moderate</i>

<i>Visual and sensory-opencast CynonVS368</i>	<i>Low</i>	<i>Low</i>	<i>High</i>	<i>Neutral</i>	<i>Moderate/minor</i>
<b>Aspect areas adjacent</b>					
<i>Visual and sensory-Hirwaun Common CynonVS430</i>	<i>High</i>	<i>High</i>	<i>Medium</i>	<i>Neutral</i>	<i>Moderate</i>
<i>Visual and sensory-Penderyn CynonVS833</i>	<i>Moderate</i>	<i>Medium</i>	<i>Medium</i>	<i>Neutral</i>	<i>Moderate/minor</i>
<i>Visual and sensory-St Gwynno CynonVS580</i>	<i>Moderate</i>	<i>Medium</i>	<i>Medium</i>	<i>Neutral</i>	<i>Moderate/minor</i>

It is first noted that the direct effect of the proposal on the immediate site landscape confirms that no trees or hedgerows are to be affected by the development, and an existing access track would be utilised. In this regard, the proposal appears reasonable. Furthermore, as set out above, none of the landscape effects identified are considered by the LVIA to be significant. These effects are considered in greater detail below:

The geological aspect area's outstanding value is due to the dramatic glacial landform of the cwm and scarp slope to the south. The LVIA states that this is not directly affected and neither is its appreciation adversely affected. The proposed turbine would be 700m away from the nearest scarp slope in the Special Landscape Area (SLA) and does not interfere with key views towards Craig y Llyn which is 2.4km away.

The historic landscape aspect's high value is a result of the 19th and 20th century industrial activities within the landscape, although many of these have been removed by relatively recent restoration/reclamation around the site and its environs. The proposal is located away from the Tower No.4 colliery and would

sit comfortably alongside historic industrial land uses. The reclaimed farmland, in which the proposal lies, is successful as appearing as traditional farmland to the casual glance. It is acknowledged that the turbine therefore, is a large object which is not in character with these apparently rural direct environs. However, other features slightly further away, such as Tower colliery buildings and the Hirwaun industrial estate, would not be incompatible.

The cultural landscape aspect area's high value is stated as being related to views from the viewpoint at Craig y Llyn. The LANDMAP aspect description states that from this viewpoint 'can be seen a microcosm of the cultural influences of the study area – man-made reservoirs, roads, prehistoric remains, colliery workings, relict quarries and small industrial workings, and forestry.' The LVIA states that the proposal would demonstrate the evolution of energy production and the future of this landscape. As the proposal would be set lower than the viewpoint it will not break the skyline. Whilst it is accepted that it would form a conspicuous new component within the landscape, it is stated that it will not be prominent or dominate the view.

The visual and sensory aspect area's low value (CYNONVS368) appears to inform the stated sensitivity of low. However, this derives from its characterisation purely as opencast mineral extraction. The LVIA states that the proposed turbine would be a prominent new component in the landscape, but would not adversely affect the character or qualities of the area. However, half the area (in which the proposed turbine would lie) now consists of well implemented reclaimed pasture with a well established field pattern of hedges with clumps of trees. The area also has a relationship with adjacent landscapes as the lower gentle slopes leading to the dramatic scarp slope to the south. Therefore, with regard to this particular aspect, it is considered that the area's susceptibility to wind turbines of this scale may be greater than stated in the LVIA.

With respect to effects upon adjacent aspect areas, it is noted that although Hirwaun Common, abuts the opencast mining to the south, this is a predominantly horizontal activity/use. The 78m turbine at around 250mAOD is a vertical feature reaching 330mAOD. The scarp slope rises around 200m in height to Hirwaun Common, at around 500mAOD. The turbine is therefore less than half the height of the nearest part of the scarp slope. Although this would interfere with, and affect, the perception of the scarp slope, it is at a distance and scale which does not significantly affect its character. Furthermore, the distance from Penderyn means that the character of the area itself is unlikely to be significantly affected.

Overall, the LVIA/addendum concludes that the proposal would not significantly affect the local or wider setting. It is considered that being a new vertical component in a landscape, which is primarily horizontal, there would be an effect on the local visual and sensory aspect area and environs; however, it is judged that the effect on other LANDMAP aspects would not be regarded as significant.

### Visual Effects

In order to assist in the assessment of the visual effects of the proposal, 11 photomontages, taken from key viewpoints are provided as part of the LVIA. These are taken from the following points:

View 1: Junction of Heol y Bryn and Heol Gwrangfryn on the eastern side of Rhigos, around 680metres from the turbine.

View 2: Public footpath to the south of the proposed turbine, approximately 470 metres from the site.

View 3: From Rhigos Road, where the footpath meets the road, approximately 520 metres south east of the proposed turbine.

View 4: Junction of Halt road and Rhigos Road, approximately 850 metres north west of the proposed turbine.

View 5: Roundabout on the A465, at the junction with Rhigos Road, looking west.

View 6: At a break in the vegetation that lines the Taff Trail (Sustrans route 46).

View 7: Mayberry Close, looking west across the urban area, along the valley.

View 8: Off the main A465 Heads of the Valleys Road, a key approach to Hirwaun from the east.

View 9: Graig Y Llyn viewpoint, off Rhigos Road, looking north with the Brecon Beacons National Park forming the backdrop to the view.

View 10: Trig point on Moel Penderyn, 3.4km to the north of the proposed turbine, looking south toward Hirwaun Common escarpment and Special Landscape Area.

View 11: From Inter Valley Road.

An assessment of the likely significance of the effect of the proposal upon each of these locations was undertaken with four being considered to result in a major/moderate significance, and the remaining seven being either, moderate, minor, negligible or none.

With respect to viewpoint 1, it is acknowledged that much of the landscape setting is of an 'industrial nature', however it must be noted much of the opencast mining operations cannot be clearly seen as an intervening landform (from this point), with the reclaimed landscape of pastoral fields and vegetation and the backcloth of the scarp slope (which is just out of view) forming attractive elements in the setting. Since, the consented Pen y Cymoedd wind farm would be located on the top of the slope, it is considered that the proposal may have the effect of bringing wind energy down from the plateau top, closer to the settlement.

It is considered that similar effects would result within viewpoint 10, whereby the proposal would have the effect of bringing wind energy down from the plateau top, into the lower valley sides, and closer to the National Park. However, from this viewpoint, the proposed turbine would be clearly separated, and located squarely in the centre of the reclaimed landscape of fields and would not be seen against the scarp slopes. It is also important to note that the consented Enviropark development with stack, would be closer to this viewpoint, along with the existing industrial estate buildings.

Similarly, major/moderate impacts are considered to result from viewpoint 2. Whilst the LVIA assessment acknowledges that the sensitivity of the receptor from this point is likely to be high, the view point does not illustrate the juxtaposition of the turbine with more dramatic landforms in the Brecon Beacons such as Pen y Fan, which would have been apparent if the viewpoint had been selected further east along the path. From this viewpoint, it is considered that the turbine would break the skyline and break up views towards the Park, however, it is unclear how well used this route is.

It is also considered that similar impacts, in terms of breaking the skyline and views towards the Park would occur from viewpoint 3; however, the presence of Hirwaun Industrial Estate and power-lines would also form part of this view.

Therefore, whilst some impacts would clearly result within the four above-mentioned viewpoints, the potential visual impacts within the remaining viewpoints would be of lesser significance.

Whilst it is accepted that the proposed turbine would still be visible within other certain viewpoints, other intervening elements would screen parts of the development (eg. in the case of viewpoint 4). Similarly, it is noted that in certain viewpoints consented turbines at Pen y Cymoedd would be visible on the skyline, so the breaching of this by the current proposal would not be without precedent.

Equally, in other cases (eg. viewpoint 9) whilst the turbine would form a feature in the view, it would not interfere with the main features of interest within that view.

### Effects on Residential Amenity

A number of properties are identified as being within a study area, for effects on residential amenity, these are located approximately 800 metres to the west of the proposed turbine on the edge of the settlement of Rhigos village on The Bryn / Heol y Bryn. It is commented that two house's backs/sides face towards the proposal; and it is considered that the proposal is likely to have a significant adverse effect on one of these (a bungalow with full height glass patio doors). However, it is not considered that this impact would be quite sufficient to be regarded as overwhelming. There are mature trees in the back garden of the other house which would screen views in the summer and filter views in the winter. Six other houses would have views from their front elevations, which are considered to be slightly less vulnerable to changes; furthermore, none are considered to undergo overwhelming effects.

Therefore, having assessed the scheme, in this instance, whilst the turbine would be a prominent detractor and would inevitably affect residents in this part of the village, on balance, it is not considered that the threshold test, developed through various planning inquiries, would be breached.

### Cumulative Impact

In order to assist in the assessment of the potential cumulative impacts of the proposal, the submission is supported by a cumulative Zone of Theoretical Visibility ZTV. Whilst this work acknowledges that from certain viewpoints (eg. Viewpoint 10) the proposal would be seen in combination with other turbines, it would appear as a separate entity to the other developments, ensuring that it does not appear over prominent or at odds with these schemes. The cumulative assessment concludes that overall, whilst the proposal would be seen in combination and in succession with a number of proposed and consented schemes, because the proposal represents a single turbine that would be lower down in the valley, this ensures that any perceived effects are minimised and their presence is fleeting.

Having assessed this work, it is acknowledged that, as mentioned previously, the siting of the turbine, in relation to consented schemes such as Pen y Cymoedd, that occupy plateau edge positions, would inevitably have the effect of bringing wind energy down to lower levels. Furthermore, the addition of another turbine within the landscape would inevitably increase the cumulative magnitude of

effect; however it is acknowledged that the major contributor to the overall landscape change will be the consented Pen y Cymoedd, not the proposal.

Landscape and Visual Impact: Summary of key issues and conclusions.

Having assessed the documents, it is considered that the complete LVIA, which accompanies the application, is considered to provide sufficient information and an adequate assessment upon which to base a decision on the acceptability of the proposed wind turbine. In summary, the key landscape and visual issues are as follows:

On the negative side:

- The turbine lies at a lower level than the consented windfarm at Pen y Cymoedd on the plateau top, thereby appearing as a related, but isolated development in a slightly incongruous position. In colloquial terms, it would appear as a 'lost sheep' in a landscape which is separate from that allocated as the main focus for wind energy development.
- There is a significant effect on the local visual and sensory aspect area and environs as it would be a new vertical component the landscape, which is primarily horizontal in character. However, the effect on other LANDMAP aspects are accepted as not being significant.
- The greatest effects appear to be on a relatively small number of residents living in houses on the south eastern edge of Rhigos who would have clear views to the proposal in an otherwise unspoilt skyline. There is a significant individual effect due to the proximity and directness of views from at least six houses. There is also an additional and combined cumulative effect on these properties when considered with the consented Pen y Cymoedd turbines on the ridge.
- The turbine would be seen in juxtaposition with views to the National Park from a local footpath to the south, however the amount which this route is used is not clear.
- The turbine would be visible against the dramatic scarp slopes of Hirwaun Common SLA, from the National Park and other points.
- The opencast extraction to the east is mentioned as an existing detractor, partly justifying the development as cleaner energy

development and smaller in scale. However, this use is only temporary. The extraction is intended to last 7 years from 2012, and the restoration for a further 5 years. Therefore the proposal would be seen in juxtaposition with this from the National Park for only around 10 years i.e. approximately half its life.

In mitigation-

- The proposal lies separate from the SLA scarp at 700m and it is of a smaller scale than the slopes. It is also generally contained within the reclaimed valley sides when viewed from the National Park.
- The turbine is a sufficient distance from the National Park so not have a significant adverse effect on it. It is also noted that no objections have been raised to the proposal by the Brecon Beacons National Park.
- Most Rhigos residents would be screened from views towards the turbine by woodland belt, landform and other houses.
- Other wind energy developments and Hirwaun Industrial Estate developments would be present for the life of the turbine.

In summary, whilst it is acknowledged that there would be some significant adverse effects from the proposed turbine, the majority are at the lower end of the significance scale. Intrinsically it is not desirable to have wind energy development in an area which acts as a buffer between the National Park and the Strategic Search Area, and which is of a different character to the SSA. However, the merits of the individual development have to be explored. As stated above, the turbine would be contained within the reclaimed valley sides, and would be read partially in the context of other wind energy developments and industrial uses. Whilst the adverse visual effects on a small number of residents in Rhigos are undesirable, the majority of residents would be screened from views towards the turbine by woodland belt, landform and other houses. Overall, the potential adverse effects need to be balanced against the benefits of clean energy, and in this case, on balance, it is considered that the benefits outweigh the effects and the proposal complies with the provisions of Policies AW6 and AW12 of the LDP and Paragraph 12.10.1 of Planning Policy Wales.

## **OTHER ISSUES**

The following other material considerations have been taken into account in considering the application:

### **Residential amenity - Noise Impact and Shadow Light Flicker**



The impacts on adjacent residential uses as a result of noise and visual disturbance due to shadow flicker/reflected light also need to be considered. The applicant has submitted a noise report, which has assessed the potential noise impact of the proposed turbine. This includes a prediction of the noise level at the nearest residential properties to the site, based on a wind speed of 4.0 – 12.0m/s and is a worst case scenario as no account is taken of any acoustic screening that may exist by intervening structures or topography. The report provides an assessment of potential impact from a number of key noise sensitive locations, including residential properties at the western fringe of the settlement of Rhigos. The results from the calculations prepared show that the noise limit at each noise sensitive area/ dwelling do not exceed 35dB(A) at all relevant wind speeds.

The Assessment and Rating of Noise from Wind Farms (The ETSU Report 1997) referred to in TAN8 provides indicative noise levels which would provide a reasonable degree of protection to wind farm neighbours. The ETSU Report recommends that predicted noise levels should not exceed 35 dB LA90, 10 m/s at 10m height. It is therefore considered that, in this instance, the proposed wind turbine would result in insignificant noise impact on residential amenity.

The potential for Shadow Light Flicker has also been assessed for the proposed wind turbine. It is generally accepted that only properties within 130 degrees either side of north in the UK would be affected at the proposed latitude of the site, and that shadow flicker assessment should be carried out if there are any residential properties within 10 rotor diameter distance of the proposed wind turbine.

The report states that the rotor diameter of the wind turbine is 56m indicating that shadow flicker could potentially be an issue for any residential property within 560m. The report therefore continues to identify the possible effects of shadow flicker upon four property locations, which are located within 560 metres of the site. This assessment is based on 'worst case scenario' and demonstrates the number of days that shadow flicker may occur and the maximum time that it may occur on those given days. The findings are summarised as follows:

Property Location	Shadow hours per year	Shadow days per year	Maximum shadow hours per day
A (Cottage Hirwaun Road)	0 hours, 0 minutes	0 days	0 minutes
B Bryn (Rhigos)	6 hours, 20 minutes	27 days	20 minutes
C (Ty Draw Farm)	6 hours, 36 minutes	31 days	19 minutes
D (Rhigos)	7 hours, 14 minutes	27 days	20 minutes

Overall, whilst it is accepted that some residential properties may experience some limited incidence of shadow flicker, it is not considered that any significant

impacts would result. The worst case scenario indicates that at the location most likely to be affected, the maximum number of hours over the course of a year, where impacts would result would be 7 hours and 14 minutes.

It is also acknowledged that the construction phase of the development may have the potential to have an impact on the amenities of local residents. However the construction activities are of short term duration and conditions could be imposed in order to control the hours of operation.

Overall, having assessed the scheme and supporting information, the Council's Public Health and Protection Division has raised no objection to the proposed turbine, subject to a number of conditions, which seek to limit noise levels. Therefore, it is considered that, subject to the imposition of appropriate conditions, the turbine is not likely to cause undue noise and disturbance to nearby residential properties.

### **Ecology/agricultural land quality**

An ecological assessment accompanies the application which the Council's Ecologist considers is acceptable and which has included appropriate habitat and species surveys and assessment of the turbine.

The physical area affected by the proposed wind turbine is relatively small, with the access track that serves the site already being in place. The assessment work confirms that the areas affected by the development are improved pastures; as such the direct habitat impact is likely to be very low.

In terms of potential impacts upon bats, the Report identifies that the turbine blade tip distance from the nearest hedgerows (or other features that bats might use) is over 50m (63m) and therefore conforms with a reference to Natural England Technical Information Note on the matter (at present Natural Resources Wales does not have its own guidance, so also support this view). As such, the report concludes that no further bat survey is needed.

The bird survey work, which accompanies the submission, has identified that swallows have a migration route along the northern edge of the coal field. In this case birds will be moving along the northern flank of the upland plateau, before turning south down the Cynon Valley. As significant numbers of swallows were recorded by the bird work, the ecology report concludes that the turbine poses a moderate risk of collision to swallows. The report concludes that this should not present a significant constraint to development, but recommends that post construction monitoring be undertaken to assess collision numbers once the turbine is constructed. In order to aid in the assessment of this issue, consultation has been undertaken with Natural resources Wales. Their response comments that they agree with the suggested approach and as such, raise no objections to the proposed development in terms of ecological impacts.

In conclusion, the Council's Ecologist and Natural Resources Wales agree with the findings of the surveys and assessments, in that the proposed development is unlikely to significantly affect the existing habitat or protected species. However, it is recommended that conditions be attached to any permission granted, which would require the submission of a Species and Habitat Protection and Mitigation Plan for Construction, prior to commencement of any works on site and the agreement of a formal process for the reporting incidental bat and bird strikes to the Local Planning Authority.

In terms of agricultural land quality, the wind turbine and associated works and assess would involve a small piece of land within a farm holding on land which appears to be improved pasture. It is therefore considered that there would not be an agricultural constraint to the development.

### **Highway Safety**

The development site is currently served by an existing access track, which connects with Rhigos Road to the far north. The agent has confirmed that the applicant has control over this route and that the existing track would be used to access the site, with no improvements to the track itself being necessary.

In order to aid in the assessment of the proposal upon highway safety, consultation has been undertaken with the Council's Transportation Section. It is noted that the application is also accompanied by a Transport Management Plan, this confirms that vehicles attending the site would follow a route via the M4 from Swansea, A465 to Hirwaun, A4061 to Rhigos Road and to the site via the above-mentioned access track (which is existing).

A swept path analysis for the route from A465 Hirwaun Roundabout to the existing site access Rhigos Road has been completed in conjunction with the Abnormal Loads Assessment. The swept path analysis indicates that the load will remain within the confines of the highway with no mitigation measures required. At the site entrance, to perform the turn into the site will require use of both carriageway lanes and will oversail the opposite verge. However, as there is no street furniture at this location, the proposal is acceptable. Nevertheless, the developer will be required to complete a dry run prior to any works commencing on site to ensure safe and satisfactory delivery and access of all components can take place.

The design and access statement indicates that the development would generate a total of 22 Heavy Goods Vehicle movements over a 2 month period, which it is considered would have a limited impact on the surrounding highway network. As such, a condition is suggested, which would require the developer to undertake a road condition survey, 25 metres either side of the junction of the existing site access, in order that any damage caused as a result of the development can be

identified and rectified at the developers expense, or compensation arrangements agreed.

In terms of visibility, the required standard for a 50Mph road, as set out in Technical Advice Note 18 is 2.4m x 160m. Whilst visibility to the east onto Rhigos Road, is satisfactory, to the west of the junction of the access onto Rhigos Road it will be necessary to undertake trimming of a conifer tree, back to the existing fence line, which in turn will result in a satisfactory visibility splay. Therefore a condition to this effect has also been suggested.

Overall, the comments of the Transportation Section conclude by stating that the proposal is acceptable in highway safety terms, subject to the submission of an expanded Traffic Management Plan being submitted, prior to commencement of works, and a dry run being undertaken. As such, no objections are raised.

### **Cultural Heritage**

In order to aid in the assessment of the proposal in terms of cultural heritage, consultation has been undertaken with Glamorgan Gwent Archaeological Trust (GGAT). Their response identifies that the supporting information, which accompanies the application, includes a Landscape and Visual Impact Assessment, which has looked at the Landmap characterisation for the site; this concludes that the development will not have a severe impact. Furthermore, the Historic Environment Record contains no information on any known features or findspots, or Registered Landscapes that would be affected by the proposal. It is also noted that the 19<sup>th</sup> century OS map editions show that the area was marshland, with the subsequent later editions illustrating industrial uses surrounding. It is therefore unlikely that archaeological features would be disturbed during the course of the proposed development. As such, their response concludes by stating that GGAT have no objections to this application on archaeological grounds.

### **Economic Benefits**

PPW and the LDP require the economic considerations of any proposed wind turbine to be considered. As the proposal involves a small scale renewable energy development, the application is required by Policy AW12 of the LDP to demonstrate that the proposal would not constrain the generating capacity of the refined strategic search area for large scale wind farm developments. As the development involves a single small wind turbine which would connect to the national grid locally, it is considered that it would not affect any future development of a large scale wind turbine within the nearby SSA'F'.

All energy generation would be sold to the National Grid, and it would help in the delivery of renewable energy targets. The applicant has advised there would be

no grid connection problems as the connection would take place via underground cable connections to the existing electricity network.

The employment generation of short term jobs from the construction of the wind turbine and its maintenance over the lifetime of the project is recognised and is considered an economic benefit of the scheme.

### **Other Considerations**

Policy AW14 refers to the safeguarding of minerals, stating that in certain locations, mineral resources shall be safeguarded from any development which would unnecessarily sterilise them or hinder their extraction. Whilst this issue is not covered in detail in the supporting documents, the Council's Spatial Planning Section comment that in this instance, this matter does carry great significance, as any coal resources would have been extracted from the site.

In relation to drainage matters, were the application to be otherwise acceptable, a condition requiring the details of the treatment of surface water matters would be imposed in order to assess the potential impact on flood risk matters.

### **Conclusion**

The development represents a small scale wind development that would contribute to the Welsh Government's commitment to optimising renewable energy generation, as set out in Section 12 of PPW. Furthermore, having assessed the impacts of the development on the character/quality of the landscape, the visual amenity from nearby residential areas and potential cumulative impact with existing and proposed wind turbines in the vicinity; on balance, it is considered that the proposed development can reasonably be accommodated within the landscape without significant harm to its character and integrity. In addition to this, no objections have been raised by statutory consultees with respect to the potential impacts upon either the amenity of nearby residential properties, highway safety or ecology. Therefore, on balance, it is considered that any harm caused by this development would not outweigh the objectives of both local and national planning policy, which seek to promote development proposals that meet national and local renewable energy targets.

As such, having regard to all the matters raised above, it is recommended that on balance, the application should be approved, subject to the conditions set out below.

### **RECOMMENDATION: Grant**

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

Reason: To comply with Sections 91 and 93 of the Town and Country Planning Act 1990.

2. The permission hereby granted shall endure for a period of 25 years from the date when electricity is first exported from a wind turbine within the site to the electricity grid network ('First Export Date'). Written confirmation of the First Export date shall be notified in writing by the developer to the Local Planning Authority within one month of the First Export Date.

Not later than 12 months before the expiry date of the permission, a decommissioning and site restoration scheme shall be submitted for the written approval of the Local Planning Authority. Such a scheme will include for:

- the removal of all surface elements, plus one metre of the turbine bases below ground level, of the wind farm;
- confirmation of the management and timing of works;
- a traffic management plan to fully address highway issues during the period of the decommissioning works;
- any other works of restoration and aftercare, following consultation with other parties, as the Local Planning Authority deem to be reasonable and necessary.

The approved decommissioning schemes shall be implemented and completed within 24 months of the expiry date of this permission.

Reason: To ensure derelict or obsolete structures do not adversely affect the environment in accordance with policies CS1, AW5, AW7, AW8, AW12 and NSA25 of the Rhondda Cynon Taf Local Development Plan.

3. Operations shall not be commenced until details of the colour and external finish of the turbine and associated structures, proposed to be used have been submitted to and approved in writing by the Local Planning Authority and all materials used shall conform to the sample(s) so approved.

Reason: To ensure that the external appearance of the proposed development will be in keeping with the character of the area in the interests of visual amenity in accordance with Policies AW5 and AW6 of the Rhondda Cynon Taf Local Development Plan.

4. The wind turbine shall be of a 3 bladed configuration and not exceed an overall height of 78m to the tip of the turbine blades. The turbine shall not display any prominent name, logo, symbol, sign or advertisement on any external surface unless otherwise agreed in writing by the Local Planning Authority. The turbine shall not be illuminated and there shall be no permanent illumination on the site, unless otherwise agreed in writing by the Local Planning Authority.

Reason: In the interest of visual amenity in accordance with policies AW12, AW5 and AW6 of the Rhondda Cynon Taf Local Development Plan.

5. In the event that the turbine does not function (i.e. does not supply electricity to the grid) for a continuous period of 12 months and if so instructed by the Local Planning Authority; the wind turbine and its associated ancillary equipment shall be dismantled, and its base removed to a depth of one metre below ground level, and removed from the site within a period of 6 months from the end of that 12 month period, unless otherwise agreed in writing by the Local Planning Authority.

Reason: In the interests of visual amenity and to ensure that the turbine is not obsolete, produce electricity whilst in situ and is removed from the site if it ceases to function, in accordance with policies CS1, AW5, AW7, AW8, and AW12 of the Rhondda Cynon Taf Local Development Plan.

6. All electricity and control cables between the turbine and the switch room shall be laid underground, unless otherwise agreed in writing with the Local Planning Authority.

Reason: To minimise environmental impact in the vicinity of the site in accordance with policy AW12 of the Rhondda Cynon Taf Local Development Plan.

7. Construction work on the site, excluding the delivery of abnormal loads and actual erection of the wind turbine, shall be confined to the hours of 0700 - 1900 Mondays to Sundays unless otherwise agreed in writing with the Local Planning Authority.

Reason: To minimise impact on the amenities of local residents in accordance with Policy AW10 of the Rhondda Cynon Taf Local Development Plan.

8. The noise immission from the wind turbine shall not exceed a sound pressure level LAeq,T of 35dB at the curtilage of any non-financially involved noise sensitive premises lawfully existing at the time of this

consent at wind speeds up to and including 10 m/s at rotor centre height. For the purpose of this condition, curtilage is defined as “the boundary of a lawfully existing domestic garden area”.

Reason: To protect the amenity of residents in accordance with policy AW10 of the Rhondda Cynon Taf Local Development Plan.

9. At the request of the Local Planning Authority , the wind turbine operator shall, at their own expense, employ a suitably competent and qualified person to measure and assess, by a method to be approved in writing by the Local Planning Authority, whether noise from the turbine meets the specified level. The assessment shall be commenced within 21 days of the notification, or such longer time as approved by the Local Planning Authority.

Reason: To protect the amenity of residents in accordance with policy AW10 of the Rhondda Cynon Taf Local Development Plan.

10. In the event that the operational turbine subsequently develops an audible tone, then a penalty shall be added to the measured sound levels in accordance with ETSU-R-97. This section applies where no tone has been identified at the assessment stage and no penalty applied. A copy of the assessment, together with all recorded data and audio files obtained as part of the assessment, shall be provided to the Local Planning Authority within 60 days of the notification.

Reason: To protect the amenity of residents in accordance with policy AW10 of the Rhondda Cynon Taf Local Development Plan.

11. If the assessment (referred to in condition 10) requested by the Local Planning Authority demonstrates that the specified level is being exceeded, the operator of the turbine shall take immediate steps to ensure that the noise emissions from the turbine are reduced to, or below, the specified noise limit. The operator shall provide written confirmation of that reduction to the Local Planning Authority within a time period to be agreed with the Local Planning Authority. In the event that it is not possible to achieve the specified noise limit with mitigation within a reasonable time period, then the operation of the turbine shall cease.

The measurement time period shall be based on BWEA blade length calculation (para 3.4(1)  $t=4*D$  seconds) Where  $t$  = measurement time period in seconds (subject to a minimum period of 10 seconds)  $D$  = rotor diameter in metres

Reason: To protect the amenity of residents in accordance with policy AW10 of the Rhondda Cynon Taf Local Development Plan.



12. In the event that an alternative turbine to that contained in the submitted noise assessment (reference) is chosen for installation, then development shall not take place until a new desktop site specific noise assessment of the proposed turbine has been submitted to and approved in writing by the Local Planning Authority.

Reason: To protect the amenity of residents in accordance with policy AW10 of the Rhondda Cynon Taf Local Development Plan.

13. No development shall take place until a Species and Habitat Protection and Mitigation Plan for Construction has been submitted and approved in writing by the Local Planning Authority. The plan shall include:

- a) An appropriate scale plan showing 'Wildlife Protection Zones' where construction activities are restricted and where protective measures will be installed or implemented;
- b) Details of protective measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction;
- c) A timetable to show phasing of construction activities to avoid periods of the year when sensitive wildlife could be harmed (such as nesting bird season, reptiles, etc.)
- d) Details of specific species and habitat mitigation measures
- e) Persons responsible for:
  - i) Compliance with legal consents relating to nature conservation;
  - ii) Compliance with planning conditions relating to nature conservation;
  - iii) Installation of physical protection measures during construction;
  - iv) Implementation of sensitive working practices during construction;
  - v) Regular inspection and maintenance of physical protection measures and monitoring of working practices during construction;
  - vi) Specific species and Habitat Mitigation measures
  - vii) Provision of training and information about the importance of the 'Wildlife Protection Zones' to all construction personnel on site.

All construction activities shall be implemented with the approved details and timing of the plan unless agreed otherwise in writing by the Local Planning Authority.

Reason: To afford protection to animal and plant species in accordance with policies AW5 and AW8 of the Rhondda Cynon Taf Local Development Plan.

14. No development shall take place until the details of the process of reporting incidental bat and bird strikes to the Local Planning Authority has been

agreed in writing with the Local Planning Authority. Thereafter, the required reports shall be provided to the Local Planning Authority in accordance with the agreed details.

Reason: To afford protection to animal and plant species in accordance with policies AW5 and AW8 of the Rhondda Cynon Taf Local Development Plan.

15. No development shall take place until a Traffic Management Plan (TMP) has been submitted to and approved in writing by the Local Planning Authority. Any temporary mitigation measures affecting public highway shall be implemented prior to transportation of the abnormal loads and reinstated upon completion of the development. The TMP shall include the following:-
- a) Swept Path Analysis (showing full route and mitigation measures);
  - b) Component size (width, height, length, weight);
  - c) Convoy Length (number of vehicles including emergency services and escorts);
  - d) Traffic Management (during transportation of abnormal loads);
  - e) Structures (over bridges height, width, weight restrictions);
  - f) Highway works (including all temporary works to public highway to facilitate access and reinstatement works including timescales);
  - g) Dry Run (to be witnessed by highway authority and police);
  - h) Temporary Traffic Regulation Orders; and
  - i) Emergency Contingencies.

The development shall be completed in accordance with the Traffic Management Plan.

Reason: In the interests of highway safety / to ensure safe and satisfactory delivery of all components.

16. Prior to the commencement of the development, a report indicating a methodology for undertaking a conditions survey of Rhigos Road 25m either side of the site access (that could be affected by the proposed development) shall be submitted to and approved in writing by the Local Planning Authority. The report should include: the timescales for

undertaking the surveys and the method(s) of reporting the findings to the Local Planning Authority; comprehensive photographs; and potential compensation arrangements. The development shall not be brought into use until the final survey (on completion of the development hereby approved) and any compensation arrangements have been submitted to and approved in writing by the Local Planning Authority.

Reason: To ensure that the extraordinary traffic use arising from the proposed development does not have an adverse impact on highway safety.

- 17. The vehicular access to the site shall be laid out, constructed and retained thereafter with 2.4 x 160 metre vision splays.

Reason: To ensure that adequate visibility is provided, in the interests of highway safety.

- 18. In the interests of air safety, the turbine shall be fitted with aviation lighting. The turbine should be fitted with 25 candela omni-directional red lighting or infrared lighting with an optimised flash pattern of 60 flashes per minute of 200ms to 500ms duration at the highest practicable point, unless agreed otherwise in writing by the Local Planning Authority.

Reason: In the interests of air safety.

- 19. No development shall take place until full drainage arrangements have been submitted to and approved in writing by the Local Planning Authority. The turbine shall not be brought into use until drainage arrangements have been completed in accordance with the approved details.

Reason: To ensure adequate disposal of foul and surface water drainage in accordance with Policy AW10 of the Rhondda Cynon Taf Local Development Plan.

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