

Planning Statement

Including Design & Access Statement

Proposed Bergey 10 kWp Wind Turbine, Pond Farm, Snowden Hill, Oxpring, Sheffield, S36 8YR

1.1. Introduction

1.1.1. EverGen Ltd have been instructed by Mr. Matthewman to submit an application for the erection of a 10 kWp, 15 metre (hub height) tall wind turbine on a monopole mast, to be sited within his land ownership at Pond Farm, Snowden Hill, Oxpring.

1.1.2. The intention is to use the wind turbine to support the running of the clients' domestic property in response to rising energy prices and a desire to draw their utilities from a more sustainable source, minimising his carbon footprint and impact on the environment.

The turbine is estimated to generate in the region of 23,775 kWh in this area which will, in conjunction with his existing solar arrays, theoretically make the client carbon neutral or even carbon negative, offsetting any draw from carbon intensive electricity sources with a potential net excess. Upon completion, the client will be exploring ways to further reduce his carbon output and energy consumption through the use of electrical heating, supplied from the turbine and solar generators, reducing his reliance on burning oil for domestic heating and hot water. The use and production of decentralised and sustainable electricity will also contribute to both local and national renewable energy and carbon reduction targets for 2020 and 2050.

1.1.3. Section 42 of the 2004 Planning and Compulsory Purchase Act requires that a statement detailing design principles and outlining access issues must accompany an application for planning permission.

In addition, the DCLG Circular 01/06 outlines that a supporting statement must demonstrate how these considerations have been assessed, outlining the fundamental principles applied and how this relates to the local context.

1.1.4. The application has been submitted along with the following;

- Site plans,
- Equipment technical drawings,
- Wind turbine specification,
- A zone of theoretical visualization (ZTV) plan,
- Landscape visualisations and
- Turbine operation noise data.

The design and access statement has been included within this document and the report is structured so as to address all key planning considerations, deemed necessary for this proposal.

1.2. Pre Application Discussions

1.2.1 The client has made prior contact with Mr. Matthew Woodward of Barnsley council planning authority, who has undertaken a site visit in relation to the proposed. Based on recommendations made, the mast height has been reduced from 20 metres to 15 metres, as well as moving to a monopole design as opposed to a lattice tower. These changes were made to compliment the surrounding topography and infrastructure typologies.

Based on advice from the MOD on current capability to offer pre application advice in the short term, we have chosen to proceed with the application without prior notification and trust that relevant parties will consult during the planning process. Based on the abundance of wind turbines in the region and the presence of a larger 25m, 50kW turbine in the immediate vicinity, we do not anticipate any issues arising from interference with defense infrastructure, electromagnetic or otherwise and so, would expect the MOD to concur in this case.

The CAA have stated that as of 24th December 2010, they no longer advise on planning proposals, prior to the submission of planning. We await their response during the planning process.

No further consultations have been made prior to submission.

1.3. Local Plan and Greenbelt Allocation

1.3.1 As per the Barnsley Council local plan and local development framework, the site is designated both as being within the greenbelt allocation and is an area of borough landscape value. The local plan shows that there are no sites of special and/ or scientific interest in the immediate vicinity of the site, with one recorded conservation area in the general vicinity of the proposed, namely black moor common, approximately 1.5Km to the north. It is understood that a similar application for a single wind turbine at Sycamore Farm, application number 2012/0237, has explored impact on Black moor common and has, after consideration, been approved. With supporting documentation and policy statements, it is believed and that impact on the prescribed green belt and landscape value will be manageable and will in fact, fit within the vernacular of the area, now to some extent characterised by electrification infrastructure.

In terms of local policy, we have taken note of the following from the Barnsley Council local development framework and core strategies, determined to be relevant, given the above;

1.3.2 Within the Barnsley local development framework Background paper 7: Green Belt and Safeguarded Land, preferred Options, Oct 2005, the document refers to PPG2, outlining policy for green belt. In this, it outlines the main purpose of green belt protection as;

“PPG2 declares that the fundamental aim of green belts is to prevent urban sprawl by keeping land permanently open, ...”

1.3.3 PPG2 also mentions items relating to the quality of the landscape;

“ ...While green belts often contain areas of attractive landscape, the quality of the landscape is not relevant to the inclusion of land in the green belt or its continued protection”

1.3.4 Within the same document, reference is made to LDF policy GB1: Development in the Green Belt. The policy reads as follows;

“Development in the green belt will be acceptable for the following uses, as long as they do not conflict with the purposes of the green belt and do not have a negative effect on openness or appearance.

... ‘I – Renewable energy schemes, including wind turbines.’

Any other development will not be allowed unless there are very special circumstances.”

1.3.5 In response to the points highlighted from PPG2, point 1.3.2 shows that green belt protection does not primarily support protection of the land itself, but the openness of the landscape to which it creates. As the landscape and visual impact assessment (LVIA) aims to show, national level, commercial scale electrification infrastructure now forms a significant part of the landscape character, as per the character description provided. It is considered that the proposed shall not appear incongruous with the existing, due to the presence of such infrastructure and due to its scale, will have comparatively less impact on both the landscape and its receptors.

It should be considered that the proposed will not upset the existing perception of openness and due to siting and structure considerations, should sit comfortably within this existing infrastructure with minimal cumulative or idiosyncratic impact on openness and perceived landscape value, resulting from implementation or operation.

The proposed should read as part of both the domestic properties in close proximity and the transmission system already sited within the green belt. It is also considered that the proposed in this location, would be far less conspicuous by comparison, than the recently erected 25m wind turbine to the south.

1.3.5 Referring to the key points highlighted in policy GB1, it is understood that special circumstances, in this isolated case do not need to be demonstrated for a wind turbine scheme, provided that the proposed does not have a negative effect on openness or appearance.

It is believed that in this case, due to existing infrastructure and the scale and nature of the proposed wind turbine, the scheme will not have a significant cumulative effect on either the openness or the appearance of the site, given its surrounding context. We shall however cite a number of special circumstances in support of the proposed irrespective, as it is understood that wind turbines are considered to be operational development, development that is considered to be inappropriate in the green belt.

The turbine has been sited amongst the existing array of electrification infrastructure so that its visual impact, cumulative or independent can be minimised. Using the existing structure as a background to blend the proposed into the landscape and minimise its impact on both appearance and openness, we are proposing to utilise the non-natural elements within the existing landscape as well as those natural vertical elements as congruous references to support a more holistic and homogeneous integration with the landscape and its adopted typology.

In conclusion, when considered independently, the proposed may impact upon the immediate landscape in a significant manner, when considered in the context of its defining landscape typology, the scheme should not be considered to have an unmanageable impact and therefore should not be refused on the grounds of impact on the purposes of the green belt or borough landscape value.

We have achieved a separation distance of approximately 100 metres from the nearest 3rd party property to avoid any acoustic or geological impact in terms of noise beyond background levels or vibration under normal operating conditions. In addition, modern turbines are no longer associated with the problem of generating electromagnetic interference and as such, we do not anticipate any problems to arise from electromagnetic interference.

As per our comprehension of relevant English heritage, natural England and Barnsley proposals mappings, the site contains no elements of archeological, architectural or historic interest.

1.3.7 At this time, we are unaware of any Tree protection orders (TPO) that would be impacted upon through the course of the scheme. Should we be made aware of any TPO's, measures will be put in place to avoid the 'crown spread' of any protected trees within the boundary of the proposed site when undertaking excavation works for required cabling runs. Special attention will be paid to ensure that fall distance 'buffer zones' are enforced when finalising the proposed turbines location, to avoid any trees in the event of mast failure and that all cabling trenches avoid interfering with tree roots. This can be seen on the site drawing included.

1.3.8 At this time, we shall treat the site and surrounding areas listings as current, unless instructed otherwise following the review.

1.4. Screening

1.4.1. An environmental impact assessment (EIA) is normally required when the governing council planning authority deems the scheme to have a potentially significant effect on the environment. Both degree and likelihood of any effect taking place generally relates to the scale of the proposed development, predominantly visual and audible impact.

The application refers to town and country planning (Environmental Impact Assessment) (England) Regulations 2011 and Circular 02/99 'Environmental Impact Assessment'.

"The likelihood of significant effects will generally depend upon the scale of the development, and its visual impact, as well as potential noise impacts. EIA is more likely to be required for commercial developments of five or more turbines, or more than 5 MW of new generating capacity."

1.4.2. When assessing screening, we refer to the following;

"The carrying out of development to provide installations for the harnessing of wind power for energy production (wind farms) is a schedule 2 development under the Environmental Assessment Regulations of 1999, provided it meets one or more of the criteria set out below.

(i) The development involves the installation of more than 2 turbines; or

(ii) The hub height of any turbine or height of any structure exceeds 15 metres.

1.4.3 As the hub height of the turbine does not exceed 15 metres and is the only one proposed, it is understood that the proposal does not fall within schedule 2 of the regulations. Therefore, we do not believe a formal screening is required. We have however, included a visual impact assessment for consideration.

1.4. Site Location

1.4.1 The proposed site, on a micro scale, is placed on the eastern border of the clients land ownership, as per the block and location plans provided. Siting has been undertaken, taking into account both acoustic and fall distance exclusion zones from nearing 3rd party properties, public rights of way and highways. We have achieved a separation distance of approximately 100 metres from the nearest 3rd party dwelling and have a fall distance of over 20 metres from the neighbouring highway, Pond Common Lane, as per the rule of thumb of turbine height to tip + 10%. Macro analysis of the area shows the site as a topographical high point, with land falling down towards the market town of Penistone, approximately 3.2 km to the north and the rural settlements of Oxpring and Thurgoland, approximately 1.75km to the north and 2.5km to the northeast respectively. Please refer to the ZTV (zone of theoretical visualisation) for an indication of theoretically visible regions in the area.

1.4.2 The turbine has been initially sited on the eastern border of the clients land ownership. The eastern boundary offers the greatest separation between the proposed turbine and 3rd party dwellings to the west, beyond the clients property. We believe that this offers the best solution to myriad factors concerning the turbines operation and landscape impact. Current placement also utilises the visual barriers of the clients' property and associated mature tree line to screen the proposed in some capacity, from direct line of sight to the dwellings closest to it, which are considered to be high impact receptors. Wind resource would be considered to be approximately constant across the site, with turbulent effects incurred closer to the buildings and sparsely sited flora in their immediate vicinity.

1.4.3 The nearest recorded public right of way is approximately 230 metres from the proposed site to the east, crossing perpendicular to the bisecting highway.

1.4.3 On a macro scale, Snowden hill represents a very small number of domestic dwellings (small hamlet), located between the more urban and densely populated locales of Millhouse Green, Penistone, Oxpring and Green Moor. Occupied development is sparse, with agricultural buildings and overhead power transmission pylons characterising the local development typology. Domestic properties are predominantly stone built, often converted barns and other traditional farm buildings. Other local features include a national grid transmission sub station and minor domestic development (current) in Green Moor.

1.4.4 The only conservation site of note in the vicinity of the site is Black Moor common to the north. The common is listed as a nature conservation site due to the presence of protected grasslands. It is understood that this conservation site has been explored from the point of view of ecological impact from a single small scale wind turbine at Sycamore farm, application 2012/0273. As per Barnsley planning portal, the scheme has been approved, leading to the conclusion that prescribed impact on this site is manageable.

1.5. The Turbine

1.5.1. The proposed wind turbine for this site is the Bergey 10 kWp microgeneration wind turbine fitted to a 15 metre, galvanised steel monopole tower, with a swept blade diameter of 7.0 metres. The turbine is a three blade, horizontal axis machine. As per the planning officers recommendation, the tower height has been reduced from 20 metres to 15 metres and the mast superstructure changed from a lattice frame to a monopole tower, as this was considered more suitable in the context of the local environment. All components, with the exception of the galvanised tower and concrete foundation (including tower fittings) will be coloured grey. Specifics are detailed in section 1.7: Colour. Detailed drawings and supporting images can be included for reference.

1.6. Colour

1.6.1. The turbine nacelle and blades shall be finished in Pearl Mouse Grey, RAL code 7048 with the galvanized steel tower, associated fittings and the concrete base left unfinished. Greys such as this have been shown to blend comfortably within stereotypically overcast British skies, therefore limiting visual impact against the skyline.

1.7. Relevant National Planning Policy

1.7.1 paragraph 14; Presumption in Favour of Sustainable Development

The key national policy document in relation to this proposal is the National Planning Policy Framework (NPPF). Paragraph 14 of the NPPF outlines the main impetus of the document;

“At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking.”

1.7.2 paragraph 7; Achieving Sustainable Development

As per the NPPF, there are three components to achieving sustainable development: economic, social and environmental. These components describe the sustainable framework around which both proposals and policies need to support;

“an economic role – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;

a social role – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community’s needs and support its health, social and cultural well-being; and

an environmental role – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.”

1.7.3. Response

The economic aspect of this scheme relates to the use of the wind turbine to reduce the running costs of the property through turbine operation, which will provide low cost electricity to the property from an on site, sustainable source. Any electricity generated in excess of the clients needs, will be circulated to the wider population via a national grid, feed in connection. This will allow others to take benefit of electricity produced from both a low carbon and decentralised, sustainable source.

From a social and environmental standpoint, through the use of a renewable energy generator, the client would be actively promoting clean alternatives to conventional fossil fuel based energy production and reducing demand on national resources, supporting the planning points in the NPPF, detailed below. This in turn will help to minimise the CO₂ footprint of the property and support the wider shift towards a low carbon economy, policies that are publicly encouraged by central Government.

Currently used as open grassland, the scheme allows both the diversification and re use of underused agricultural land, without impeding upon any future agricultural use. The scheme promotes both diversity in agriculture, as well as mixed use in support of maximising sustainable development potential. Support for sustainable energy production and operation forms part of the encompassing argument for the proposal and is reflected to a greater extent in the NPPF, specifically paragraphs 17, 91, 93, 95 and 97:

1.7.4. (17) ‘ . . . These 12 principles are that planning should:

Support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change, and encourage the reuse of existing resources, including conversion of existing buildings, and encourage the use of renewable resources (for example, by the development of renewable energy);’ (NPPF, www.communities.gov.uk)

1.7.6. (93) ‘Planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development.’

1.7.5. Response

Through the use of such a turbine alongside his existing roof and ground mounted solar arrays, the client is actively promoting both renewable energy generation and sustainable living, sourcing most, if not all his power demands from sustainable, local sources. Through the use of all viable methods of electricity generation, the client will be in a position to explore sustainable sources of supported heating, drawing on the afore-mentioned electricity generators to supply a sustainable source of heating, representing a holistic approach to living from an energy awareness perspective.

1.7.7. (95) ‘To support the move to a low carbon future, local planning authorities should:

- plan for new development in locations and ways which reduce greenhouse gas emissions;’ (NPPF, www.communities.gov.uk)

1.7.7. (97) ‘To help increase the use and supply of renewable and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources. They should:

- ... Design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;’ (NPPF, www.communities.gov.uk)

1.7.8. Response

The UK has the best wind resource available in Europe. Further to that, the altitude and the topography of the site means that the site maximises that high quality resource. This high quality resource is not evenly distributed amongst the UK and so it is considered that areas of strong resource should be utilised to their full potential in support of the UK’s climate change targets.

1.8. Special Circumstances

1.8.1. A key consideration in this case is whether the proposed conflicts with the purposes of the green belt, outlined in policy GB1: Development in the Green Belt of the local development framework (LDF).

Policy GB1 states that:

“Development in the green belt will be acceptable for the following uses, as long as they do not conflict with the purposes of the green belt and do not have a negative effect on openness or appearance.

- a Agricultural or forestry use
- b Essential facilities for outdoor sport and recreation
- c Cemeteries
- d Mineral Extraction
- e Limited Extensions, alterations to existing buildings
- f Changes to use of buildings
- g Limited development or redevelopment of major developed sites
- h Homes for people working in agriculture or forestry
- i Renewable energy schemes, including wind turbines

Any other development will not be allowed unless there are very special circumstances.”

1.8.2. As per the LDF policy cited above in BLDF background paper 7; Green Belt and Safeguarded Land; Preferred Options; October 2005, the proposed is classed as an acceptable development, provided it does not impede upon the goals of the green belt protection and does not have a negative effect on openness or appearance. As mentioned, it is understood that wind turbines are generally considered to be classed as operational development which in contrast, in the context of the BLDF and NPPF, would be deemed to be inappropriate development. For this reason, we have included what is considered to be special circumstances that are believed to outweigh inappropriate development in the greenbelt.

1.8.3. The same paper cites PPG2 when referring to the function of green belt allocation;

“PPG2 declares that the fundamental aim of green belts is to prevent urban sprawl by keeping land permanently open”

The purposes of including land within the green belt boundary, as per PPG2 falls under the following 5 categories;

- To check the unrestricted sprawl of large built up areas
- To prevent neighbouring towns from merging into one another
- To assist in safeguarding the countryside from encroachment
- To preserve the setting and special character of historic towns and
- To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

1.8.4. The proposed does not impede any of the objectives set out above and in some respects, actually supports them through restriction of future development, due to the impact it would have on turbine performance, citing performance impedance as a justifiable objection to development. For these reasons we do not believe that the proposed shall impede upon the purposes and objectives of including land within the local green belt allocation.

1.8.5. Furthermore, reference is made to a further point within background paper 7 that cites PPG2, discussing quality of landscape when dealing with green belt protection;

“PPG2 stresses that the purpose of including land in the green belt should take precedence over the land use objectives. Therefore, while green belts often contain areas of attractive landscape, the quality of the landscape is not relevant to the inclusion of land in the green belt or to its continued protection.”

1.8.5. In recognition of the fact that PPG2 does not wholly support wind turbines, we cite policy GB1, again referring to PPG2, discussing inappropriate development.

“Section 3 outlines the general presumption against inappropriate development within the green belt and that inappropriate development should not be approved except in very special circumstances ...”

1.8.5. In response to special circumstances in support of ‘inappropriate development’, PPS 22 on renewable energy iterates that exceptional circumstances in support of development within the green belt may include the wider environmental benefits associated with increased production of energy from renewable sources.

This point is particularly pertinent as it represents the clients main driver for exploring the potential of renewable energy generation. Through the use of both the existing solar PV systems in place at the moment and the proposed, the client will create a level of independence from rising grid utility prices, thereby reducing his dependence on national resources and becoming more self sustaining, simultaneously supporting clean energy generation on both local and national levels via a national grid feed in system. Any excess energy generated will be fed back into the national grid, where others can benefit from electricity generated from a sustainable source, supporting the UK’s targets on renewable energy and emissions for 2020 and 2050, as well as reducing our reliance on foreign gas and oil.

This low cost electricity generated and the substantial saving of carbon dioxide (approx. 10,272 Kg CO₂ p/annum) over the lifetime of the turbine, coupled with the potential for the client to explore electrical heating in the future, thereby reducing their carbon output further by reducing their reliance on burning oil in our opinion, heavily outweigh the implied impact on the green belt, irrespective of further measures.

1.8.6. Negative impact on both openness and character are still key elements when justifying green belt protection. In the context of the area, the green belt is very expansive, covering a significant proportion of the locally occupied area. In this case, all land owned by the client is classified as green belt and therefore, we were unable to consider sites that would not impede upon green belt in some capacity.

When looking at effects of openness, under advisement, strategic decisions have been made to modify the physical parameters of the turbine to better fit the surrounding electrification infrastructure that defines the local typology, with the intention of minimising the turbines appearance as an incongruous element within the landscape. In contrast to larger scale wind farms, the proposed singular turbine is comparable in scale to the vertical elements around it and is coloured to suit the palette of the British landscape. The turbines superstructure is slender with a comparatively small swept area in comparison to other machines of this size, all with the intention of minimising the turbines impact on openness. We do not anticipate any significant issues with inter-visibility as for the most part, the only turbine nearby by is mostly masked by the bisecting topography and is of a different scale and nature.

In conclusion, it is not felt that a single turbine of such design, scale and colour, cited amongst an area characterised by far more substantial artificial infrastructure would noticeably impact on the ‘openness’ of the landscape when considered as a whole. A landscape and visual impact

assessment (LVIA) along with a series of photomontages in support of this. Within the report, landscape character is also discussed.

1.9. Other Factors

Alongside visual impact as per the LVIA, consideration has been given to other factors, relating to paragraph 98 of the NPPF:

1.9.1 (98.) ‘When determining planning applications, local planning authorities should:

Not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and

Approve the application if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should also expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas.”

Information on on-site usage and potential savings from the use of the proposed turbine can be supplied upon your request.

1.9.2 Impact in this case relates to noise generation and impact on biodiversity. In relation to the former, noise data from the turbine supplier is enclosed as part of this submission. The nearest third party property is approximately 100 metres from the proposed siting location. Noise data under operation, supplied by the manufacturer has been provided.

2.0. Environmental Impact Assessment (EIA)

2.0.1. The implied effects on the local environment, arising from an installed wind turbine, stereotypically depends upon the size of the proposal and its subsequent visual impact, as well as the associated impact of noise. It is our understanding that an environmental impact assessment is more often required on larger, commercial scale developments, usually of 5 turbines or more, equating to a potential generating capacity of greater than 5MWp.

2.0.2. We believe that an environmental impact assessment is not necessary in this case due to the size of the scheme, being only a fraction of a Megawatt in peak capacity and the fact that we are only proposing a single turbine.

2.1. Wind Resource

2.1.1 Siting of the turbine has been decided upon, based on the prevailing wind resource across the clients land ownership. The siting of the turbine on the eastern boundary of the clients land ownership, utilises the available wind resource in the area and minimizes any turbulent effects that may be produced from flows passing over properties and associated flora to the west. Siting in this location also minimises any audible effects on third parties in the vicinity. It is expected that the proposed turbine with the available wind resource in this area would produce approximately 23,775 kWh per annum.

2.4.3 The turbine needs to be sited in what could be considered a prominent location to maximize its exposure to available wind resource and hence operate at the peak of its possible performance, optimizing the benefits of the proposed scheme. Siting away from the property also reduces any acoustic impact that the turbine may have on nearing 3rd party properties.

2.5. Electrical Connection and Groundwork

2.5.1 The application consists of a small section of land, used to site the turbine upon its 3m² concrete pad foundation and an underground trench roughly 0.3 metres wide and approximately 1.0 metre deep, which will run back to the main electrical connection within the clients garage. The afore-mentioned trench will be used to house the electrical cabling and will be backfilled once installed. We will endeavor to return ground to its original state where possible. The concrete foundation is the only permanent part of the proposed turbine. All other components can be deconstructed and removed once the turbine has moved beyond its operable life cycle.

2.5.2 As mentioned in earlier sections, we will make efforts to actively avoid the crown span of any nearby tree or long standing fauna where possible, in response to best practice when dealing with tree protection orders and any possible existing habitats, should they become apparent prior to, or during activity within the life cycle of the turbine.

2.5.3 Specific information on groundwork can be seen in soils and hydrology and interpreted from site drawings.

2.6. Site Access

2.6.1 The site is served directly from a private drive belonging to the property. No highway alterations or traffic management provisions are necessary in this case, as the turbine will be delivered to site in sections, being delivered using conventional transporter vehicles and unloaded on private property, belonging to the client.

2.6.2 Vehicle movement will be low and will not impact on highways safety as all movement, with the exception of access will take place on private land. On average, three visits are made to the site during installation; once during the installation of the turbine foundation and twice during the installation of the turbine itself.

2.6.3. As a matter of course, a health and safety risk assessment will be undertaken and can be supplied, should you consider it necessary.

2.7. Landscape Impact

2.7.1 The turbine has been both designed and chosen with minimum impact in mind. The proposed turbine does not conform to the stereotypical aesthetic on wind turbines and more specifically, wind farms. The proposed Bergey turbine is more akin to the far more commonplace mobile telephone mast or overhead electrical pylons, common to the area.

2.7.2 The scale and mass of the turbine has been considered when evaluating conspicuousness within the landscape. The masts slender, monopole design and compact nacelle, along with its colouring, allow the turbine to blend into the landscape, minimising impact on appearance and projecting as slender a silhouette as possible. Greys, amongst a few other select colours have been shown to blend into the rural landscape and against British skies.

2.7.2 The submitted ZTV plan and accompanying visualisations illustrates that the proposed wind turbine will have minimal effect on the landscape of the surrounding area. A landscape impact assessment has been included to comprehensively illustrate the points made.

2.8. Ecology

2.8.1 There is little to no evidence of wildlife being adversely affected by small scale wind turbine installations. Research undertaken almost exclusively relates to large scale wind turbines within a wind farm network. The turbine proposed within this application would fall well outside both the design and operating parameters to which these tests are based upon.

2.8.2 'experience and careful monitoring by independent experts shows that birds are unlikely to be damaged by the moving blades of micro wind turbines', an online statement made by Renewable Energy UK, formerly The British Wind Energy Research Association (BWEA), (www.bwea.com)

2.8.3 'climate change is the most significant, long-term threat to biodiversity worldwide. To help meet this threat, the RSPB also strongly supports moves to increase energy efficiency, reduce energy demand and supply more of our needs from renewable sources including wind power, provided they do not harm birds or their habitats', comments made by the RSPB.

2.8.4 Studies have shown that there is a far greater risk from overhead power lines, moving cars and domestic cats compared to wind generators. We have no evidence to support the presence of bats in the area, which are protected. We refer to guidance note TIN051, which provides a guide for wind generators in relation to ecology.

2.8.5 Submitted plans confirm that the proposed turbine conforms to the guidance of TIN051; the turbine has been sited more than the minimum 50 metres from the blade tip to the nearest hedgerow and trees.

2.9. Heritage and Listed Buildings

2.9.1 There are no registered listed buildings within the limitations of the site, nor are there any recorded heritage sites within the sites immediate context that would be affected by direct line of sight, as per the English heritage online mapping service. There are however, 5 recorded grade 2 listed buildings approximately 400 metres to the south west of the site within Snowden Hill. These are existing and converted farm buildings and cottages within the boundary of the neighbouring farmstead. When assessed against the parameters, deemed as mandatory requirements for heritage conservation, due to a number of existing buildings and partial treelines in the immediate context of the turbine, we do not believe that the proposed will impact upon the properties or characteristics deemed important to their listed status.

(<http://list.english-heritage.org.uk/results.aspx>)

3.0. Noise

3.0.1 Although PPS 22 (renewable energy) has superseded ETSU-R-97, it is still considered to be the main source of information on the audible impact of wind turbines.

3.0.2 Paragraph 22 of Planning Policy Statement 22 (Renewable Energy) states:

“Renewable technologies may generate small increases in noise levels (whether from machinery such as aerodynamic noise from wind turbines, or from associated sources). Local planning authorities should ensure that renewable energy developments have been located and designed in such a way to minimize increases in ambient noise levels. Plans may include criteria that set out the minimum separation between different types of renewable energy projects and existing developments. The 1997 report by ETSU for the Department of Trade and Industry should be used to assess and rate noise from wind energy development.”

3.0.3 Paragraph 41 of the companion guide to PPS22 states:

“Noise levels from turbines are generally low and, under most operating conditions, it is likely that turbine noise would be completely masked by wind-generated background noise.”

3.0.4 Paragraph 25 of the of the ETSU-R-97 (Assessment and Rating of Noise From Wind Farms) states:

“For single turbines or wind farms with very large separation distances between the turbines and the nearest properties, a simplified noise condition may be suitable. We are of the opinion that, if noise is limited to an LA90, 10 min of 35 dB(A) up to wind speeds to 10m/s at 10m height, then this condition alone would offer sufficient protection of amenity and background noise surveys would be unnecessary. We feel that, even in sheltered areas when the wind speed exceeds 10 m/s on the wind farm, some additional noise will be generated which will increase background levels at the property.”

3.0.5 We have submitted the relevant acoustic report on the Bergey turbines’ acoustic performance under normal operating conditions as part of the application.

3.0. Shadow Flicker

2.4.1 Although recently superseded; the companion guide to PPS22 is still useful when evaluating shadow flicker. The guide illustrates the key considerations that need to be made when establishing the potential intensity and frequency of shadow flicker impact.

2.4.2 “Only properties within 130 degrees either side of north, relative to the turbines can be affected in the UK – turbines don’t cast long shadows on their southern boundary. The further away you are, the less pronounced the effect is.”

2.4.3 “The companion guide to PPS22 states that shadow flicker can be mitigated by siting the turbine a sufficient distance from residences likely to be affected. Flicker has been proven to only occur within ten rotor diameters of a turbine, i.e. 10 x the swept diameter of the blades.”

2.4.4 The nearest property is approximately 100 metres from the proposed site location. The blade diameter of this turbine is 7.0 metres, therefore the required distance will be 70 metres which the design achieves. This means that the nearest property shall not be affected by shadow flicker, falling outside the active flicker zone.

3.1. Public Rights of Way (PROW)

3.1.1 Information provided by Barnsley Council proposals mapping shows that the proposed site has a public right of way within the vicinity of the proposed, approximately 230 metres to the east. In accordance with prevailing guidance, a distance from the PROW of fall distance + 10% has been met, being sited more than 19.5 metres from the nearest right of way.

3.2. Soils and Hydrology

3.2.1 Online investigations using the environmental agencies flood risk mapping service shows that the site is at no risk of flooding.

3.2.2 With regards to the proposed trench, no soil stripping, storage, replacement or drainage shall occur during the groundwork’s and installations process.

3.3. Aviation and Telecommunications

3.3.1 It has been noted that as of 24th December 2010, the CAA no longer give responses prior to the submission of planning permission. We await consultation from the MOD during the planning process. We do not anticipate any objections based on precedents in the area.

3.3.2 Based on CAA google earth mappings, the site is covered by primary radar, but not by secondary radar or ground to air communications services. The mapping shows that the nearest aerodrome is Sheffield City Airport at a distance of 18.59Km.

Design and Access

Statement

4.0. Context

4.0.1. The context of the proposed scheme is a single small scale wind turbine serving a domestic dwelling and associated outbuildings in the rural area of Oxpring, Penistone. The proposal will provide an on-site source of renewable energy which will be utilised by the occupant, significantly reducing the operating costs of his home as well as promoting the production and use of decentralized renewable sources of electricity in the local area.

4.1. Design

4.1.1 The design of the turbine is functional, simple and formed to promote performance over flamboyance. The materials and palettes used have been selected with inconspicuousness in mind, with a view to blending into the surrounding landscape where possible.

4.2. Degree of Appropriateness

4.2.1 The size of the proposed turbine is appropriate, in that it has been scaled to serve the current and future needs of the farmhouse and its occupants. The client currently has two 4kWp solar PV systems and will be using the turbine in a supplementary capacity in an effort to completely cover the buildings electrical requirements using sustainable resources.

4.3. Purpose

4.3.1 The purpose of the turbine is to provide a renewable source of electricity to serve the needs of the occupants within the domestic property in providing electricity and potentially over the longer term, heating. The turbine also represents an active move towards self-reliance and a lesser dependence on grid utilities which currently leave him to susceptible to regular price increases.

4.3.2 The field within which the turbine will be sited will not change use, which is currently open grassland.

4.4. Scale

4.4.1 The scale of the proposal is similar to that of a small telegraph pole or mobile phone mast and therefore would not appear incongruous within its current context. A number of visualisations from the visual impact assessment (VIA) will hopefully describe this relationship, especially in relation to the low voltage power lines crossing the site.

4.4.2 As per the drawings provided, the tower height is 15 metres (to hub) and has a swept blade diameter of 7.0 metres.

4.5. Landscaping

4.5.1 No landscaping changes are proposed. The only permanent component of the proposed is the concrete base, representing a 3m² area of unfinished concrete. All other components can be removed once the turbine has reached the end of its life cycle. Cabling shall be disconnected and buried so as to avoid any more land disturbance.

4.6. Appearance

4.6.1 The turbine is formed from metallic and synthetic materials and has a simple yet functional appearance. Images of a local scheme recently approved and erected have been included for reference.

4.7. Access

4.7.1 No specific access considerations or alterations are required. Details are included within the planning document.

4.8. Conclusion

4.8.1 The promotion and subsequent development of renewable energy resources is essential in meeting the UK governments commitments on both climate change and renewable energy resources.

4.8.2 The site has been chosen, taking into consideration impacts on landscape, noise output, access for construction and maintenance, obstructions that may restrict access to wind resource, wind speed, locality to 3rd party properties, nearby public rights of way and proximity to overhead electrical cables.

4.8.3 When reviewing the application, the local planning authority should consider the following:

- The turbine has been designed with minimal impact and holistic life cycle in mind.
- The turbine aims to be sympathetic to the surrounding landscape and has a minimum design life of 20 years.
- All turbines are temporary, fixed only by a foundation that protrudes minutely from the ground. Once outside their usable life, they can be removed quickly and easily.
- The proposed location is remote, having little impact on surrounding properties and neighbouring, more densely populated settlements.
- The turbine will prove to be a valuable resource, both to the client and the country, providing the client with low cost electricity from a renewable source in comparison to increasingly expensive grid utility, as well as supporting the government in meeting their climate change and renewable energy targets.
- The scheme shows that the environmental, economic and social benefits have been considered in depth through specificity in decision-making on topics such as siting, scale and design.

4.8.4 Section 38 (6) of the planning & compensation Purchase Act 2004 requires that planning applications be considered in conjunction with the BLDF and NPPF unless material considerations indicate otherwise. The application is understood to comply with the relevant policies of the development plan and national policy framework. Therefore, it is our opinion that there are no material considerations that indicate why planning permission should be refused.