Design and Access Statement

Micro-Scale Wind Powered Renewable Energy System at Brook House Farm, Buxton

June - 2013









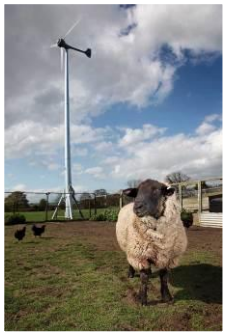
POWERING THE COMMUNITY

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1. Introduction

This Design and Access Statement has been prepared by Windcrop Ltd on behalf of the applicant. This statement supports an application for full planning permission, which is submitted in respect of Brook House Farm, Fairfield, Buxton and should be read in conjunction with planning application forms, associated plans and technical documents, including:

- Plans, Maps and Elevation Drawings
- Technical Specification
- Construction Method Statement
- Ecological Assessment
- Landscape And Visual Impact Assessment
- Noise Impact Assessment
- Heritage Statement
- Windcrop Case Studies

A Design and Access Statement is a short report accompanying and supporting a planning application to illustrate the process that has led to the development proposal, and to explain and justify the proposal in a structured way.[1] The Statement must examine the physical, social, economic and policy context of the development and review six elements of the "Design" process and "Access". Those elements are: Use, Amount, Scale, Layout, Landscaping and Appearance.

This Design and Access Statement has been prepared in accordance with national legal requirements[2] which confirm that a Design and Access Statement should accompany planning applications for the erection, alteration or replacement of plant or machinery where, as a result of the development, the overall height of the plant or machinery will exceed 15 metres above ground level. Planning permission is generally not required for a wind turbine in the curtilage of a home where it is less than 11.1m in height.

[1] Paragraph 60 DCLG Circular 01/2006
[2] Town and Country Planning (General Development Procedure) Order 2006, DCLG Circular 01/2006 and the Town and Country Planning (Development Management) Order 2010

2. About Windcrop

Windcrop Ltd is the market leader in small- scale micro wind turbines with around 600 turbines installed throughout some 70 Local Planning Authority Areas in England. Windcrop has established a track record of making the benefits of small-scale renewable energy more accessible to rural communities and local farming enterprises. At a time when the long term security of electricity supply and the need to reduce carbon emissions have been at the forefront of energy policy, Windcrop has grown though its unique provision of fully-funded turbines with no capital investment required by the customer and a guaranteed warranty for a 20 year period.

Each funded turbine saves our rural customers an average of £500 a year at current prices/ Each purchased turbine will generate a net annual income (including free electricity savings) for our rural customers an average of £2,000 a year. We only install one size of turbine – under 15m to hub height with lightweight blades each under 2.5m in length, as we believe that this product can produce the maximum benefit to our customers with the least environmental impact. The turbines are defined as micro generation systems[3].

As an environmentally friendly business, Windcrop follows a strict set of planning criteria for each and every planning application. This model is designed to support the sustainability and viability of rural homes and businesses, not to supplant them, so in keeping with our environmental ethos, we will never propose more turbines than can be used by the applicant.

Windcrop Quiet Revolution HY5-AD5.6 wind turbines are Micro-generation Certification Scheme (MCS) approved. Windcrop installs turbines on behalf of customers and is an MCS accredited installer and an ISO9001 certified organisation. The turbine is CE marked and approved for use in the UK. The company is actively involved in the wider renewables industry as members of both the Renewable Energy Association (REA) and Renewable UK.

At Windcrop we apply strict planning criteria to each proposed installation to ensure precautionary distances to any environmental receptors. These include exceeding minimum distances to near neighbours, trees and hedgerows with habitat potential, other planting, utilities infrastructure, footpaths, bridleways, listed buildings and other heritage assets etc. Therefore the relationship between the proposal and its wider environment is carefully evaluated prior to the submission of a planning application.

[3] Section 82(6) of the Energy Act defines micro generation as encompassing systems with an output not exceeding 50KW. A Windcrop QR HY5 turbine generates 5KW.

3. Brook House Farm Planning Proposal Overview

The planning application proposes a micro-scale wind renewable energy system. The proposal will provide Brook House Farm with a renewable, sustainable and efficient electrical energy supply using one micro wind turbine. Each turbine to be installed will be economically viable, robust, efficient and quiet by design. Windcrop turbines are mounted on 15m masts and the application plans include the route of electrical cable to a Single Phase electrical supply.



The technical specification of the Windcrop System is submitted with the planning application pack and details of the site, the planning context of the proposed installation and its design impacts are explained in Sections 5 and 6 of this Statement.

Quiet Revolution HY5-AD5.6 is the product name for the Windcrop turbine model. Throughout this document and the associated documents it is abbreviated to QR-H5.

4. Environmental Impact Screening

The planning application has been assessed under the 2011 Environmental Impact Assessment (EIA) Regulations[4]. Schedule 2 of the regulations "installations for the harnessing of wind power for energy production" and refers to indicative thresholds of installations of more than 2 turbines or the hub height

[4] The Town and Country Planning (Environmental Impact Assessment) England and Wales Regulations 2011

of a turbine exceeding 15 metres. Paragraph A15 of the relevant Circular[5] states: *"The likelihood of significant effects will generally depend upon the scale of development, and its visual impact, as well as noise impacts."* and that *"EIA is more likely to be required for commercial developments of five or more turbines or more than 5 MW of new generating capacity."*

Here at Brook House Farm the measured hub height would be less than 15m and only 1 turbine is proposed with a generating capacity of less than 5 kW (0.005 MW). Thus the proposal is significantly below the threshold for significant environmental effects.

5. Planning Policy and Local Context

A. Planning Context

Renewable Energy

Wind energy is an abundant natural resource. It is non-polluting, clean and sustainable. The UK has one of Europe's windiest climates and wind energy is expected to be an important element in achieving the targets contained in the government's UK Low Carbon Transition Plan published in Summer 2009. The overall target is to reduce carbon dioxide emissions to 34% below 1990 levels by 2020. In 2008 the UK agreed to achieve 15% of our national energy consumption from renewable energy by 2020, from a starting point of just 1.3% in 2005. More specifically, it is Government policy to achieve 30% of the nation's electricity requirements from renewable sources by 2020. The Committee on Climate Change reviewed these targets in September 2010 concluding that they should remain at their previously agreed levels. The UK is committed to an 80% cut in greenhouse gas emissions by 2050[6]

The National Planning Policy Framework

The National Planning Policy Framework (NPPF), published on 27 March 2012 sets out national planning policies for England and how these are expected to be applied. It includes a presumption in favour of sustainable development and support for maximising the delivery of renewable energy.

Paragraph 14 of the NPPF states: "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…

For **decision-taking** this means:

- approving development proposals that accord with the development plan without delay; and
- where the development plan is absent, silent or relevant policies are out-of-date, granting permission unless any adverse impacts of doing so would significantly and demonstrably outweigh the benefits…"

The following policies of the NPPF are particularly relevant to this planning application:

[5] Circular 02/99 (Environmental Impact Assessment)
[6] Climate Change Act 2008

Policy 19 - The Government is committed to ensuring that the planning system does everything it can to support sustainable economic growth. Planning should operate to encourage and not act as an impediment to sustainable growth. Therefore significant weight should be placed on the need to support economic growth through the planning system.

Policy 21 - Investment in business should not be over-burdened by the combined requirements of planning policy expectations….

Policy 28 - …To promote a strong rural economy, local and neighbourhood plans should:

- support the sustainable growth and expansion of all types of business and enterprise in rural areas;
- promote the development and diversification of agricultural and other land-based rural businesses;

On the key issue of "meeting the challenge of climate change" the following policies are particularly relevant:

Policy 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.

Policy 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;…

Policy 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:

- have a positive strategy to promote energy from renewable and low carbon sources;
- 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;
- consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources[7]*.
- support community-led initiatives for renewable and low carbon energy, including developments outside such areas being taken forward through neighbourhood planning; and
- identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.

[7] * (In assessing the likely impacts of potential wind energy development when identifying suitable areas, and in determining planning applications for such development, planning authorities should follow the approach set out in the National Policy Statement for Renewable Energy Infrastructure (read with the relevant sections of the Overarching National Policy Statement for Energy Infrastructure, including that on aviation impacts). Where plans identify areas as suitable for renewable and low-carbon energy development, they should make clear what criteria have determined their selection, including for what size of development the areas are considered suitable).

Policy 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.

The NPPF replaces Planning Policy Statement 22 (PPS 22) *Renewable Energy*, but for the time being, the Companion Guide to PPS 22 remains extant.

The following extracts from the Companion Guide cover the key issues that need to be considered when siting wind turbines, and provides more detailed guidance to applicants and local planning authorities alike:

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

- Visual and Landscape Impact: The impact of turbines on the landscape will vary according to the size and number of turbines, the capacity of the landscape to absorb change, and the duration of any consent. Conditions may be attached to planning permissions which require the future decommissioning of turbines.

- Safety: The Technical Annex identifies little or no risk arising to the public and states that properly designed and maintained generators are a safe technology.

- Ecology: The Technical Annex states that the impact of a wind farm on local ecology should be minimal. A common concern has been the risk of bird strike; more recently, an additional concern around the risk of harm to bats has emerged.

- Electro-magnetic Production and Interference: The Technical Annex states that provided careful attention is paid to siting, wind turbines should not cause any significant problems of electrical interference. Scattering of signal is a phenomenon that arises very occasionally and effects on radio or television transmitters can usually be resolved through careful siting, in consultation with the relevant bodies.

- Specialist Consultation: It may be necessary to consult specialist bodies, including users of telecommunications systems, local utility companies, or emergency services on occasions.

- Shadow Flicker: Shadow flicker is a rare event which sometimes can occur when the shadow of the turbines blades play on nearby buildings in certain conditions. However this is not a problem normally found with small wind turbines. The siting of this installation at considerably greater than 10x the diameter of the rotor blades away from the nearest dwelling prevents the possibility of shadow flicker.

- Icing: The build-up of ice on turbine blades is unlikely to be a problem. For ice to build up on wind turbines particular weather conditions are required that in England occur for less than one day per year.

Local Plan / Development Plan Policies

Since the 1st anniversary of the publication of the NPPF, in a written Parliamentary Answer, the Planning Minister has confirmed *"For the purposes of decision-making, policies in local plans should not be considered out of date simply because they were adopted prior to the publication of the NPPF. Due weight should be given to relevant policies in existing plans according to their degree of consistency with this framework (the closer the policies in the plan to the policies in the framework, the greater the weight that may be given)."*

Policies 214 to 216 of the NPPF allow Local Planning Authorities (LPAs) to give weight to relevant policies in emerging plans (depending upon the stage of preparation and the extent of unresolved objections to relevant policies).

The site is located within the jurisdiction of High Peak Borough Council where there is no adopted Local Plan consistent with the NPPF.

Windcrop participates in the plan making process. We broadly support emerging planning policy where this is consistent with the positive national policy themes of maximising renewable energy, promoting sustainable development and supporting micro scale wind energy projects connected to community services and rural enterprises.

Policy 76 of the High Peak Local Plan 2005 relates to renewable energy proposals:

CF10 - RENEWABLE ENERGY

Planning Permission will be granted for renewable energy development, provided that:

- the benefits of the renewable development outweigh any adverse impacts; and
- the proposals demonstrate that any harm to the environment or local amenity either individually or cumulatively is minimised and can be kept to an acceptable level

In all cases consideration will be given to the impact of proposals on

- the environment and local amenity
- the appearance of the landscape
- flora, fauna and other nature conservation interests
- noise, shadow flicker and vibration levels including electromagnetic interference;
- air and water quality
- features and areas of natural, cultural, historical and archaeological interest
- the reduction of the emissions of greenhouse gases and the wider social and economic benefits of a proposal

Particular care will be taken in assessing proposals for developments in areas with special designations. In the following sites Planning Permission will only be granted in certain circumstances:

- in European Statutory Nature Conservation Sites provided it can be demonstrated that the integrity of the site will not be adversely affected or there are no alternative sites and there are imperative reasons of overriding public interest necessitating the development.

- in Sites Of Special Scientific Interest, National Nature Reserves, Scheduled Ancient Monuments, Conservation Areas, Listed Buildings and Registered Parks And Gardens where it can be demonstrated the special character of the area will not be compromised by the development and any significant adverse impacts are clearly outweighed by the benefits of the development.

All proposals shall include a satisfactory scheme which will ensure the site is restored to its original condition once the generating operations have ceased. Where appropriate the proposal will be accompanied by an Environmental Impact Assessment.

Supplementary Planning Guidance

The LPA has published a Supplementary Planning Document in respect of Renewable Energy. This sets out criteria for planning applications in accord with the scale of the proposal. The application proposal can be categorised as Domestic or Very Small Scale in the context of the SPD.

Planning History

There is no relevant planning history in relation to wind energy proposals at Brook House Farm.

B. Physical and Landscape Context

Brook House Farm is situated in open undulating country side a few hundred metres north from Buxton in the county of Derbyshire. It is located within a rural area where the character of the landscape is dominated by agricultural activity and a long history of agricultural management. Brook House Farm is located approximately 815m to the northeast of Buxton. The surrounding area is dominated by a patchwork of medium/ large irregular agricultural fields on undulating ground, permanent pasture and scattered farms. A large television mast is to the west, and many electrical pylons are also in the surrounding area.

The proposed site is a small area of grazing pasture to the northwest of the farm complex. The site is not known to be contaminated. The installation will not result in contamination and on decommissioning the helical piles will simply be unscrewed leaving no residual material.

Siting OS grid reference:	Turbine 1, X - 406679, Y - 375200
Nearest neighbour:	265m approximately from proposed location to the façade of 'Panorama'
Nearest public road / footpath / bridleway:	295m approximately from proposed location to Brown Edge Road
	168m approximately from proposed location to footpath
Description:	The turbine will be located on a small area to the northwest of Brook House Farm building complex.

Photo from Location of the turbine (looking north).



Photo from Location of the turbine (looking east).



Photo from Location of the turbine (looking south).



Photo from Location of the turbine (looking west).



Panoramic view: north east south from turbine 1.



Panoramic view: south west north from turbine 1.



Aerial Image



C. Social Context

People are a fundamental consideration of planning and planning for energy needs in particular. The need for power generation is driven by human consumption and economic activity. Cheap environmentally friendly energy production is becoming an increasingly essential component of successful and thriving rural enterprises. The cost of failing to grasp the challenge of the reality of climate change will be shared for generations. It is important to act now and not to be dissuaded from acting locally and appreciating the effect that small community based renewable energy projects can have on lasting positive environmental change. Each Windcrop turbine is helping to tackle and manage climate change. Sustainable development is a laudable concept at the cornerstone of UK Planning Policy and built upon the premise that: "we don't inherit our earth from our ancestors… we borrow it from our children".

The wider social aims of this proposal are clear but it considers its local impacts too. The Quiet Revolution QR -H5 micro-scale wind turbine is one of the quietest wind turbines available so the proposal will not cause unacceptable noise impacts. This is explained in detail in the associated Noise Statement.

D. Economic Context

The proposed micro generation system is expected to generate an average of 12.74 MWh of electricity each year, equivalent to a saving of 7 tonnes of carbon dioxide. This yield data has been calculated from the Small Wind Turbine Yield Calculator, jointly developed by the Carbon Trust and Renewable UK (formerly BWEA) and which is widely recognised as the most accurate yield forecast tool available. In particular it has addressed many of the issues of overoptimistic yield forecasts from earlier tools which did not take account of local geographic conditions.

Here it is estimated that the applicant would save approximately £773 per annum from making use of the free electricity provided at source from a Windcrop turbine. This installed capacity will also help to contribute towards regional targets for renewable energy generation included in the UK Low Carbon Transition Plan.

6. The Six Elements of Design

This part of the Design and Access Statement explains the proposal in the context of six elements of design: Use, Amount, Layout, Scale Landscape and Appearance. In addition to the full explanation of the proposal in this Design and Access Statement, this planning application is supported by further statements to explain the planning impacts as follows:

- A document entitled "The Windcrop System" is provided to explain the technical details of the design of the proposal.
- A Construction Method Statement is provided to explain the construction impacts of the proposal.
- A Noise Impact Statement is provided to explain the potential for noise impacts in the context of this proposal.
- An Ecology Statement is provided to explain the likelihood for any potential impact upon protected species and their habitats as a result of the development.

- A Landscape and Visual Impact Assessment is provided to examine the visual context of the development upon the character of the local landscape including cumulative impacts with other vertical structures and manmade features in the landscape.
- A Heritage Statement is provided to review any potential for the development to impact upon the setting of any designated heritage assets including designated buildings and archaeology.

A. Use

The development does not change the use of the site. The application site is currently grazing land and this status doesn't change with the submission of the proposal. A wind turbine with its supporting structure as shown in the elevation drawing would take up approximately $3m^2$ of land and the surrounding area would continue in its existing use. The proposal is for a temporary installation and the applicant is content that any planning permission granted can be conditional upon the installation being removed and the precise siting of the development being returned to its former condition on or before the 20^{th} anniversary of any turbine being first commissioned.

Having regard to NPPF policy 206 a reasonable planning condition may be applied to facilitate the end of life removal of the development beyond its planned period of 20 years following the date of commissioning of the installed turbine.

Windcrop operates on the basis of planning criteria which ensure that each micro scale turbine is installed to be efficient and environmentally sensitive from an operational and planning perspective. The site assessment process avoids areas of nationally significant natural habitat (e.g. SSSIs and SPAs), prominent nationally designated landscapes (e.g. National Parks), proximity to scheduled ancient monuments or Listed Buildings, neighbouring residential properties and utility apparatus such as overhead power lines. Thus undue heritage, nature conservation, landscape, amenity or practical constraints have been scoped out or explained prior to the submission of this planning application.

The electrical energy generated will be free to be used at the applicant's premises and at times when surplus energy is generated this is exported to the national grid. The proposal allows the applicant to maximise financial savings from using free renewable energy and to review their electrical usage generally to make the most of this free supply for their rural agricultural business.

B. Amount

The application proposes 1 micro scale wind turbine on a site of under 0.1 hectares forming part of the applicant's wider land holding.

The NPPF, at policy 98, states that Local Planning Authorities should "not require applicants for energy development to demonstrate the overall need for renewable energy and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions." Notwithstanding this approach, Windcrop can confirm that the renewable energy is required to meet the applicant's energy needs and that the 12.74 MWh of electricity generated per annum would produce significant energy cost savings for the applicant and in addition to the per annum reduction in carbon dioxide of several tonnes. The energy to be generated is required and produced at its point of use.

The QR-H5 turbine has a nominal rotor speed of 240 rpm and a maximum blade tip speed 82.1 m/sec.

C. Layout

Here at Brook House Farm, the precise siting for the turbines has been selected following a comprehensive field assessment process in consultation with the applicant and having regard to national planning policy and to the High Peak Local Plan and its SPD so as to maximise the production of renewable energy while minimising any planning, landscape, amenity, noise, safety or conservation impacts and the operational requirements of the site.

The layout of the development ensures that the proposal would have a minimal visual and environmental impact while benefiting from the average annual wind speed of 6.5 metres per second.

The layout of the proposal is also guided by technical requirements in relation to the avoidance of turbulence, maintenance access and location of electrical supply.

The siting takes into account reasonable precautionary separation distances to ecological features in proportion to the very small scale of the proposal in the context of other utility scale wind energy projects.

The phenomena known as “Shadow Flicker” is not readily associated with micro scale wind turbines. However, as a precaution against adverse effects, turbines should be positioned at least 10x the diameter of the rotor blades away from the nearest dwelling to prevent the possibility of shadow flicker. The nearest dwelling is approximately 265m from the proposed installation, which is considerably beyond the recommended calculation of 56m for the selected turbine.

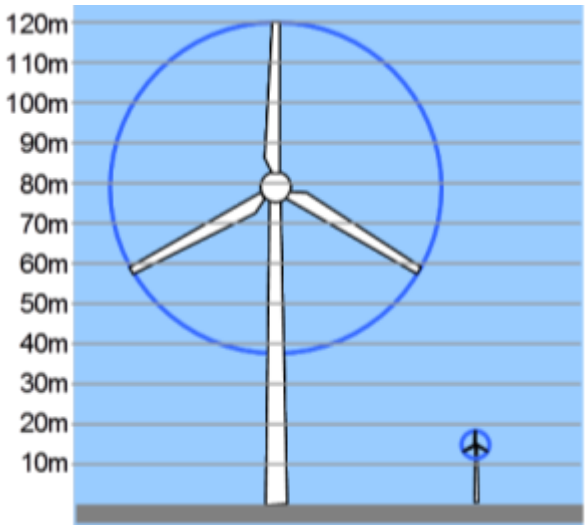
The submitted maps and the aerial photographs below provide further explanation to the proposed layout.

D. Scale

As set out in the submitted technical specification each Windcrop micro-scale turbine has a hub height of 14.97m. The 3 turbine blades attached to the hub are less than 2.5m long, giving a total rotor diameter of 5.6 metres. This, in turn, provides a small swept area of 24.6m^2 which is the smallest area of a turbine at this height.

It is important to appreciate that the proposed turbine is of a completely different scale to the now familiar utility scale giants, which do not provide dedicated local power supply to rural enterprise premises and may have tower heights of 100m and rotor diameters of 80m or more.

Clearly the form of development is closer in scale to a typical telegraph pole, highway lamp or power transmission pole, which forms a familiar aspect of our rural landscape. It is also lower than small scale telecommunications masts which are generally located closer to built developments and populated areas.



The diagram above shows the difference in scale between a typical utility turbine and the micro scale Windcrop model.

The QR-H5 turbine mast is installed on 3 No. helical piles which are drilled at a depth of 4 to 6m depending upon ground conditions. This type of foundation system has the advantage of being more environmentally sensitive than a large concrete block and is easier to remove to reinstate the site in future.

E. Landscape

The site is located within the 'Derbyshire charater area known as Dark Peak', described as a landscape type of "Moorland Fringe". The site is not within a nationally designated area.

Windcrop has previously sited its micro-scale wind-powered renewable energy systems in installations of 1, 2 or 3 turbines (all at the standard hub height of under 15 m) within a variety of landscape types. Our recent landscape analysis of operational sites consistently shows that the turbines are generally unobtrusive between 500m to 750m distance depending upon the nature of intervening landscape, horizon features, topography and the presence of trees and other vertical interventions within the locality. The following photographs show current installed Windcrop turbines in a flat agricultural landscape and in a rolling valley landscape at different viewpoint distances to provide a very general guide to the appearance of the company's uniquely small scale form of wind energy development.



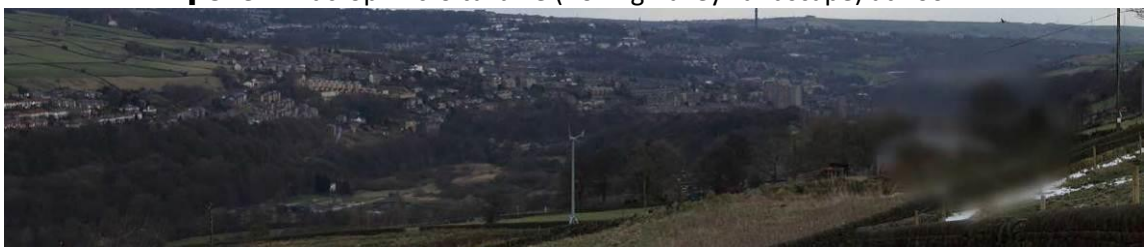
↑Three Windcrop Turbines (Flat Agricultural Landscape) at 200m



↑Three Windcrop Turbines (Flat Agricultural Landscape) at 500m



↑One Windcrop micro turbine (Rolling Valley Landscape) at 200m



↑One Windcrop micro turbine (Rolling Valley Landscape) at 500m

In a variety of landscape settings, Windcrop turbines are generally not noticeable at a distance of 1km[8]. The above installations were photographed at a fixed bearing at measured intervals. The photography followed the guidance as set out in Landscape Institute Advice Note 01/11 using a 50mm focal length fixed lens camera, tripod mounted at 1.8m height.

The following photographs show viewpoints looking towards the proposed installation site and include two photomontage visualisations which depict the completed installation to assist with appreciating the Landscape and visual impact of the proposal

Aerial Image



[8] Sowerby Landscape and Visual Impact Assessment Installed Site 2013, South Norfolk Photographic Visual Report Installed Site 2012, Tendring Site Assessments Landscape Institute Methodology Photography 2013

Viewpoint 1



Viewpoint 2



F. Appearance

The tower or mast is tapering steel pole in a matt grey colour galvanised to BSEN1461 while the turbine housing and blades have an anti-erosion coating in white. There is no external lighting to be installed on or around the turbine. There are no additional fences or other structures proposed. All cabling is installed underground.

7. The Elements of Access

The installation process will generate minimal traffic, typically involving one day on site to insert the foundation helical piles and erect the turbine. No access roads or hard standings are proposed as the installation process does not require these.

Following installation, access will be required for routine maintenance only. Access will be via the existing entrance to the field. There is no requirement for a transport assessment or travel plan and the specific vehicular and access impacts are presented adequately in the Construction Statement. No dedicated parking or other access provision will be required for the installation site. There are no issues raised by this proposal in respect of access by people with disabilities.

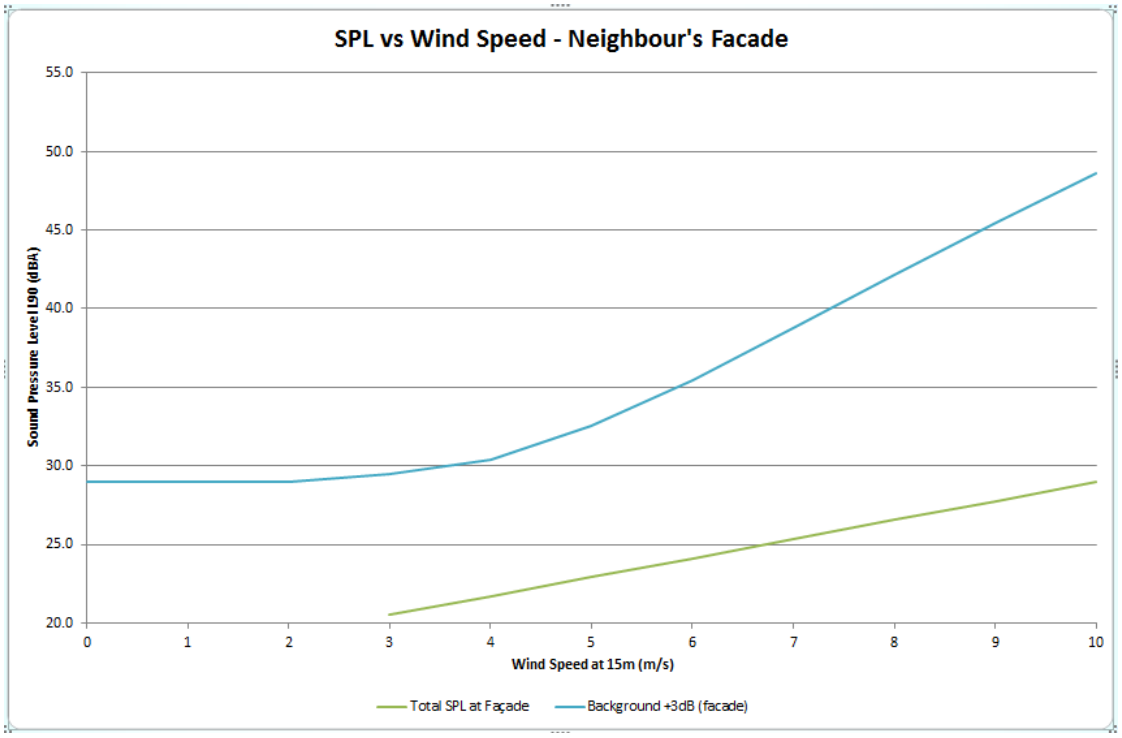
8. Noise Assessment

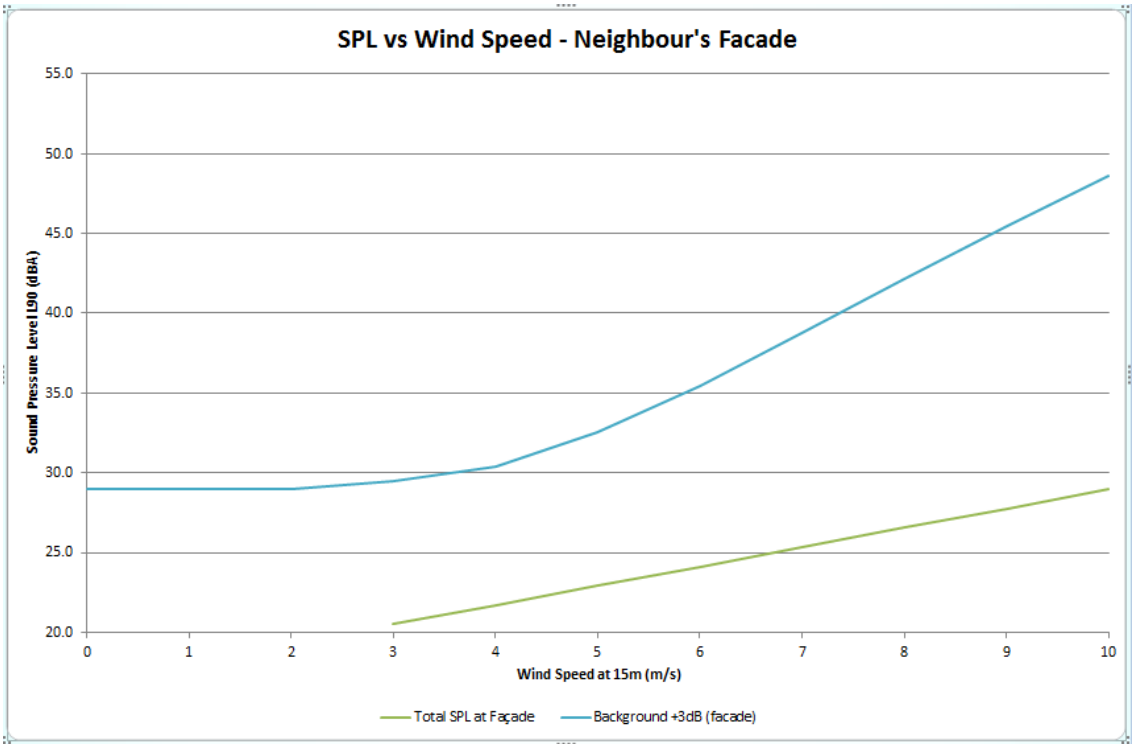
The Quiet Revolution Turbine system proposed is relatively quiet. When we check noise outputs, this is examined against an assumed "conservative" background noise level has been agreed following consultation with a number of local authorities to protect the amenity of nearest neighbouring properties. This has resulted in siting distances which are much larger to neighbours compared with assessments using the ETSU-R-97 assessment method (applied to measure noise from large scale wind farms). In reality, as wind speed increases background noise increases and we are confident that our "conservative" approach will not harm residential amenity. There are over 500 Windcrop turbines installed at farms, homes, schools and rural enterprises. These are regularly maintained and do not have a history of noise complaints. A Noise Statement is provided in a separate document.

Here at Brook House Farm, the distance to the amenity (garden) boundary of the nearest neighbour, Panorama, is approximately 249 metres to the west of the turbine; the distance to the façade is 265 metres. The graph below compares the background noise level (blue line) with the turbine noise level (green line) at different wind speeds between 3m/s and 10m/s. At wind speeds generally below 3m/s, the turbine does not operate.

We have recently carried out a number of noise surveys on sites with similar characteristics to the application site. The lowest BS4142 Leq reading we have obtained is 28dB with an average result of 31dB. As such, the assumed level of 26dB is very conservative and a separate site noise survey is not considered necessary to support this assumption. This leads us to conclude that the neighbouring property of Panorama will not be adversely affected.

In addition, at Brook House Farm, grazing fields, railway lines, undulating ground and trees around the neighbours property are situated between the turbine location and the neighbour.





9. Conclusions

The planning application accords with National Planning Policies and with the Development Plan. Planning law requires that planning applications must be determined in accordance with the development plan unless material considerations indicate otherwise[9]. The NPPF introduces a powerful

[9] Section 38 (6) of the Planning and Compulsory Purchase Act 2004 and Section 70 of the Town and Country Planning Act 1990

presumption in favour of sustainable development. In view of its planned minimisation of potential adverse impacts and its maximisation of energy from a renewable resource in support of a rural enterprise, the proposal is demonstrably sustainable development which should be approved without delay.

The planning application proposes a renewable energy supply for the application site and supports its role in the rural economy.

Landscape, environmental, and amenity impacts have been minimised by design and through the careful consideration of siting criteria supported by national and local planning policy.

Having minimised design impacts, the provision of renewable energy, realisation of local rural economic benefits derived from electricity cost savings together with the cumulative contribution to the UK's carbon reduction and climate change management objectives are all demonstrable positive material considerations here.

Since December 2012, Local Planning Authorities have been placed under a statutory duty to deal with planning applications proactively and positively[10]. In these circumstances, there are no material considerations which could lead to an unfavourable decision in respect of this renewable energy proposal at Brook House Farm.

The grant of planning permission subject to controlling conditions would not result in any demonstrable harm or adverse impacts and would respond positively to the applicants energy needs while contributing to wider "climate change" management objectives.

[10] The Town and Country Planning (Development Management Procedure)Order Amendment 2012