

PLANNING SUPPORTING STATEMENT
(Incorporating Design & Access Statement)

ERECTION OF A 10KW WIND TURBINE
AT LAND AT ROYD LANE, PENISTONE, S36 9NY

Prepared by:
Aspire Planning Ltd
info@aspireplanning.co.uk
www.aspireplanning.co.uk
February 2012

1.0 Introduction

1.1 The application comprises the erection of a 10kW Evoco microgeneration wind turbine with tower height of 15m and blade diameters of 9.7m, within a field to the north east of Royd Lane.

1.2 The application is accompanied by site plans, wind turbine drawings, wind turbine specification, a Zone of Theoretical Visualisation (ZTV) Plan, and noise data. The Design & Access Statement (DAS) is incorporated within this document and the structure of this report is set out so as to individually address each of the key planning considerations for such proposals.

The turbine

1.3 The wind turbine proposed for this site is the Evoco 10kW microgeneration wind turbine with tower heights of 15m and blade diameters of 9.7m. The turbine has 3 polypropylene blades finished with a white colouring and the galvanised steel tower will sit on a concrete foundation.

1.6 The wind turbine's specifications have been submitted as part of the application.

Screening Opinion

1.7 The application is made with reference to the Town and Country Planning (Environmental Impact Assessment) (England) Regulations 2011 and Circular 02/99 'Environmental Impact Assessment'.

1.8 As the hub height of the turbine exceeds 15 metres the proposal falls within Schedule 2 of the Regulations and as such we request a formal Screening Opinion from the local planning authority.

1.9 *Schedule 2 development*

Development listed in Schedule 2 requires EIA if it is likely to have significant effects on the environment by virtue of factors such as its size, nature or location.

1.10 Annex A of Circular 02/99 (Environmental Impact Assessment) provides further guidance relating to threshold levels and selection criteria:

1.11 *Wind farms*

A15. 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.

1.12 After consideration of the above criteria, it is our opinion that the local planning authority does not require an EIA as the proposed development will not have a significant environmental impact.

Wind resource

1.13 The turbine will be located towards the north eastern corner of the application field. The nearest third party dwellings are 175m to the south at Millhouse Green, and three dwellings located approximately 250m to the west, south west and north west respectfully.

1.14 The turbines need to be sited in semi prominent locations to achieve the highest possible energy capture and optimise the economics of the project.

Grid Connection

1.15 The application site comprises a section of land equating to approximately 149 square metres; which includes the turbine (sited on a foundation), an offshoot underground trench of 108m with an approximate width of 150mm and of a depth of approximately 1m leading to the electricity supply within the farm complex. The trench will be filled in after the relevant apparatus has been installed.

2.0 Site Access

2.1 The application site is served directly through the farm concreted access road from the public highway to the south west. Access to the site from the farm is gained via existing field accesses. No improvements to the existing accesses are necessary.

2.2 Small wind turbines such as the proposed 10kW machine being proposed can easily be delivered to site. They are delivered on smaller transporter vehicles and then tractors take the sections from the farm to the site. Site roads are not necessary for a proposal of this scale and furthermore, no

alterations are required to the existing highway network to facilitate the delivery. Vehicle movements during construction will be very low, and will not impact on highway safety. It is likely that one visit will be needed for the foundation works; approximately two visits for the installation of the turbine (including delivery of the tower & blades); and thereafter one visit per year for maintenance.

2.3 In terms of safety the applicant will as a matter of course have to undertake an appropriate Health & Safety risk assessment.

3.0 Landscape Character and Visual Amenity

3.1 It is important to appreciate that the proposed turbine in this instance is of a completely different scale to the now familiar 'wind farm' utility scale turbines (normally 80m + in height & 80m + diameter blades). By comparison the proposed turbines, with tower heights of just 15m, are nearer in scale to a typical power transmission pole or mobile phone mast, both familiar aspects of the rural landscape. Furthermore micro generation turbines have been specifically designed to have low visual impact, with slender blades and minimal visual bulk.

3.2 The submitted ZVI plan confirms that the proposed wind turbine will have a minimal effect on the landscape of the surrounding area.

4.0 Ecology

4.1 There is little evidence of wildlife being adversely affected by small scale wind turbine installations. The substantive research undertaken relates almost exclusively to large scale wind turbines in the shape of wind farms. The application relates to a small scale wind turbine at 15m in height being a fraction of the size of a large scale commercial generator.

4.2 Renewable Energy UK, formerly The British Wind Energy Research Association (BWEA), state on its website (www.bwea.com) *'experience and careful monitoring by independent experts shows that birds are unlikely to be damaged by the moving blades of micro wind generators'*. More

information on this can be found from BWEA Best Practice Guidelines.

4.3 The RSPB current position is that *'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 energy needs from renewable sources, including wind power, provided they do not harm birds or their habitats'*.

4.4 Studies of birds increasingly show that the risk from wind turbines to most species is very low with a far greater risk existing from overhead lines, moving cars and domestic cats.

4.5 The RSPB has installed a small wind turbine at their visitor centre at Rainham Marshes and are considering turbines for other sites. (Refer to www.rspb.org.uk/news/details.asp?id=tcm:9-216421 for further information)

4.6 Bats are protected by UK and European legislation but like birds there is little or no evidence that small scale wind turbines cause detrimental harm or mortality. Natural England has produced guidance notes TIN051 & TIN059 which both refer to large scale turbines, however as a guide for smaller generators Natural England recommend TIN059 is relevant, until such a time as more specific guidance is released.

4.7 The submitted plans confirm that the proposal accords with the guidance set out in TIN059; the turbine being sited at least 50m from blade tip to the nearest hedgerows and trees.

5.0 Historic Environment

5.1 There are no known historic landmarks or heritage assets nearby to the siting of the turbine.

6.0 Noise

6.1 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 - for example, traffic). Local planning authorities should ensure that renewable energy developments have been located and designed in such a way to minimise increases in ambient noise levels. Plans may include criteria that set out the minimum separation distances 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."

6.2 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."

6.3 Wind turbine noise is measured against the recommendation of ETSU-R-97 *'The assessment and rating of noise from wind farms'.* Paragraph 25 of this document 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 LA90,10min of 35 dB(A) up to wind speeds of 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 10m/s on the wind farm, some additional noise will be generated which will increase background levels at the property."*

6.4 Paragraph 14 of the ETSU-R-97 document also states that:

"The Noise Working Group is agreed that the LA90,10min noise descriptor should be used for both the background noise and the wind farm noise, and that when setting limits it should be borne in mind that the LA90,10min of the wind farm is likely to be about 1.5-2.5dB(A) less than the LAeq measured over the same period.

6.5 Noise data relating to the Evoco 10kW machine has been submitted as part of the application package, showing the noise levels at the nearest third party property will be in accordance with

ETSU.

7.0 Shadow Flicker

7.1 Shadow Flicker is discussed in the companion guide to PPS22 (Planning for Renewable Energy). The likelihood of this occurring and the duration of such an effect depend upon:

- The direction of the nearest residence relative to the turbine;
- The distance from the turbine;
- The turbine hub-height and rotor diameter;
- The time of year;
- The proportion of day-light hours in which the turbines operate;
- The frequency of bright sunshine and cloudless skies; and,
- The prevailing wind direction.

7.2 Only properties within 130 degrees either side of north, relative to the turbines can be affected in the UK – turbines do not cast long shadows on their southern boundary. The further an observer is from the turbine the less pronounced the effect will be. There are several reasons for this:

- There are fewer times when the sun is low enough to cast a long shadow;
- When the sun is low it is more likely to be obscured by either cloud on the horizon or intervening buildings and vegetation; and,
- The centre of the rotor's shadow passes more quickly over the land reducing the duration of the effect.

7.3 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 and that flicker has been proven to only occur within ten rotor diameters of a turbine.

7.4 The nearest dwelling is approximately 150m from the proposed site of the turbine (see site plan). The blade diameter proposed in this instance is 9.7m (requiring a distance of 97m) and therefore the proposed 'buffer' distance of 150m would be well within this guidance.

8.0 Public Rights of Way

8.1 There is an 'other route with public access' (ref. OS map symbols – see ASP003) to the north of the proposed turbine. There is also a lane which is a public right of way just to the north of the proposed turbine.

8.3 Given the topography of the land between the proposed turbine and the highway / rights of way, toppling distance is not something that would affect these public routes as the only direction the turbine would topple would be south and to the south there is at least the height to blade tip of the turbine plus 10% to any other rights of way.

8.4 The application submission confirms that no public rights of way will be affected by the proposed development, including the delivery, erection and maintenance of the wind turbine, the impact on footpath users and any footpath diversion or mitigation measures proposed.

9.0 Soils and Hydrology

9.1 It is confirmed that the site is not within a Flood Risk area or adjacent boreholes. The submitted plans confirm the location of the proposed trench. No soil stripping, storage or replacement, or site drainage is necessary.

10.0 Access and Servicing requirements

10.1 The application site is served directly through the farm concreted access road from the public highway to the south west. Access to the site from the farm is gained via existing field accesses. No improvements to the existing accesses are necessary.

2.2 Small wind turbines such as the proposed 10kW machine being proposed can easily be delivered to site. They are delivered on smaller transporter vehicles and then tractors take the sections from the farm to the site. Site roads are not necessary for a proposal of this scale and furthermore, no alterations are required to the existing highway network to facilitate the delivery. Vehicle

movements during construction will be very low, and will not impact on highway safety. It is likely that one visit will be needed for the foundation works; approximately two visits for the installation of the turbine (including delivery of the tower & blades); and thereafter one visit per year for maintenance.

11.0 Aviation and Telecommunications

11.1 The MOD and relevant aviation authorities have been consulted prior to submission. To date, no responses have been received. The relevant authorities are expected to be formally consulted as part of the application process.

12.0 Community Involvement and Benefits

12.1 Heads of terms are only considered necessary for larger commercial scale turbines. The application turbine being only a 10kW turbine is not considered a large commercial scale turbine and no heads of terms are envisaged to be necessary.

13.0 Planning Policy

13.1 Wind energy is an abundant natural resource. It is non-polluting, clean and sustainable. The UK has one of Europe's windiest climates and therefore wind energy is expected to be an important element in achieving the UK government's commitment to achieve 20% of the nation's electrical requirements from renewable sources by 2020.

13.2 The Government's policy on energy use is set out in the Energy White Paper (DTI, 2007). This aims to:

- cut the UK's carbon dioxide emissions;
- maintain the reliability of energy supplies;
- promote competitive markets; & ensure that every home is adequately and affordably heated.

13.3 In this context, renewable electricity generation can make a significant impact, and the White Paper

aims for 20% of electricity to be supplied by renewable generation by 2020.

13.4 Overall, the White Paper highlights the critical importance of security of energy supply and it predicts the UK will need around 30-35GW of new electricity generation capacity in the next 20 years with around two thirds of this needed by 2020, to replace power stations and meet rising demand.

Planning Policy Statement 22: Renewable Energy (PPS22), 2004

13.5 PPS22 Renewable Energy was issued in September 2004 with the Companion Guide following in December 2004. PPS22 sets out the Government's planning policy framework for renewable energy and the Companion Guide presents practical advice on the preparation and implementation of policy. Together they provide the current specific planning policy framework on renewable energy.

13.6 This PPS advises that policies in regional spatial strategies and local development documents should promote and encourage, rather than restrict, such development. It encourages renewable energy development across England where the technology is viable and environmental, economic and social impacts can be addressed satisfactorily. PPS22 acknowledges that of all the renewable energy technologies, "wind turbines are likely to have the greatest visual and landscape effects" and that consideration should be given to cumulative impact of wind energy schemes.

13.7 PPS22 sets out the following key principles in its approach to planning for renewable energy:

- Proposals should be accommodated in locations where environmental, economic and social impacts can be addressed satisfactorily;
- RSS and LDD's should contain policies designed to promote and encourage, rather that restrict, the development of renewable energy resources;
- At the local level, planning authorities should set out proportionate criteria that will be applied in assessing applications for renewable energy projects.

13.8 Policies that rule out or place constraints on the development of all, or specific types of, renewable energy technologies should not be included in LDD without sufficient reasoned justification.

- The wider environmental and economic benefits of all proposals are material

considerations that should be given significant weight in determining proposals.

- Local planning authorities should not make assumptions about the technical and commercial feasibility of projects. (e.g. identifying generalized locations for development based on mean wind speeds.) Technological change can mean that sites currently excluded as locations for particular types of renewable energy development may in future be suitable;
- Small scale projects can provide a limited but valuable contribution to overall outputs of renewable energy and to meeting energy needs both locally and nationally. Planning authorities should not therefore reject planning applications simply because the level of output is small.

13.9 Relating to small scale renewable energy development, paragraph 18 states:

"Local planning authorities and developers should consider the opportunity for incorporating renewable energy projects in all new developments. Small-scale renewable energy schemes utilising technologies such as solar panels, biomass heating, small-scale wind turbines, photovoltaic cells, combined heat and power schemes can be incorporated both into new developments and some existing buildings. Local planning authorities should specifically encourage such schemes through positively expressed policies in local development documents."

13.10 Paragraph 20 states:

"Of all renewable technologies, wind turbines are likely to have the greatest visual and landscape effects. However, in assessing planning applications, local authorities should recognise that the impact of turbines on the landscape will vary according to the size and number of turbines and the type of landscape involved and that these impacts may be temporary if conditions are attached to planning permissions, which require the future decommissioning of turbines."

<u>Planning Policy Statement supplement on climate change (PPS1), 2007</u>

13.11 The Planning Policy Statement supplement on climate change (PPS1), published in 2007, sets out what the Government expects from good planning, and underlines that tackling climate change sits at the centre of all planning considerations. PPS1 develops the policy on renewable energy set out

in Planning Policy Statement 22 on renewable energy (PPS22).

13.12 PPS1 expects regions to set targets for renewable energy capacity in line with national targets, or better where possible. These targets are expected to be reviewed in the light of delivery and revised upwards where appropriate. Given the compelling case for renewable energy, and to avoid unreasonable or unrealistic demands of industry, the Government has said that applicants for renewable energy should no longer be questioned about the energy need for their project, either in general or in particular locations.

13.13 PPS1 considers that planning authorities should adhere to the following principles in determining planning applications:

- controls under the planning, building control and other regulatory regimes should complement and not duplicate each other;
- information sought from applicants should be proportionate to the scale of the proposed development, its likely impact on and vulnerability to climate change, and be consistent with that needed to demonstrate conformity with the development plan and this PPS; specific and standalone assessments of new development should not be required where the requisite information can be made available to the planning authority through the submitted Design and Access Statement, or forms part of any environmental impact assessment or other regulatory requirement;

13.14 The Department for Communities and Local Government (CLG) has issued a new draft Planning Policy Statement 1 (PPS 1) Supplement: Planning for a low carbon future in a changing climate. This proposes to combine the former PPS 1 Supplement with PPS22 on Renewable Energy. Although the current PPS 1 Supplement was only published December 2007, there have been substantial changes in climate change policy since then. The new draft reflects much stronger commitments on both climate change adaptation and mitigation in:-

- The Climate Change Act 2008
- The Low Carbon Transition Plan
- The EU Directive on renewable energy sources
- The Household Energy Management Strategy

and makes addressing climate change, via both mitigation and adaptation including renewable energy, a key role for planning.

Barnsley Borough Local Plan (Saved Policies)

13.15 Barnsley's current statutory Development Plan consists of the Core Strategy, the Barnsley Education Sites Development Plan Document (DPD) (both of which form part of the Local Development Framework), the remaining saved policies of the Unitary Development Plan, and the Regional Spatial Strategy.

13.15 The Core Strategy was adopted in September 2011 and provides up to date policy context for Barnsley Council to aid the determination of planning applications for renewable energy proposals. The Renewable Energy section of the Core Strategy (ref. page 63 onwards) sets out that:

"The Regional Spatial Strategy set local targets for installed grid-connected renewable energy and the figures for Barnsley were 15 MW by 2010 and 34 MW by 2021"

13.16 The Policy Solution for Barnsley is:

"Increasing renewable energy capacity and facilitating the delivery of schemes which lead to wider economic and environmental benefit, reduce greenhouse gas emissions, and provide a diverse energy supply"

13.17 Policy CSP 6 sets out the Council's policy on *'Development that Produces Renewable Energy'*. The policy sets out that:

"We will allow development that produces renewable energy as long as there is no significantly harmful effect on:

- *the character of the landscape and appearance of the area*
- *living conditions*
- *biodiversity, geodiversity and water quality*
- *heritage assets, their settings and cultural features and areas*
- *highway safety, and*

- *infrastructure including radar*

Proposals must be accompanied by information that shows how the local environment will be protected, and that the site will be restored when production ends."

13.18 Paragraph 9.35 clearly sets out that;

"We will support proposals for renewable energy unless there are significant harmful effects which cannot be prevented or mitigated against."

14.0 Design and Access Statement

Use

14.1 The proposed development will produced an environmentally safe energy producing wind turbine. The field which it is located in will not change use and agricultural practices will continue.

Amount

14.2 One wind turbine is being proposed.

Layout

14.3 The siting of the wind turbine is shown on accompanying plans.

Scale

14.4 The turbine has a tower height of 15m and a blade diameter of 9.7m. Please see accompanying plans.

Landscaping

14.5 Landscaping is not applicable to this type of development

Access

14.6 No specific access considerations are required.

15.0 Economic Justifications

15.1 The wind turbine development is being proposed on a working farm. It will add diversification to the farm creating a more balanced and durable working farm unit. Farms such as this need to be able to utilise all resources available to them to financially compete and survive in unpredictable commercial markets. Countryside areas and farms must be allowed to be financially self-sufficient and viable. Development of this sort helps achieve these aims.

16.0 Conclusion

16.1 In conclusion, the development of renewable energy resources is vital in facilitating the commitments of the UK Government on both climate change and renewable energy.

16.2 The site has been chosen sequentially taking into consideration impact on landscape, impact on wildlife, noise output, access for construction and maintenance, obstructions that may restrict air flow, wind speed, proximity to farm buildings and proximity electrical connection.

16.3 The LPA should consider the following:

- The proposal is for a modestly sized wind turbine, having a tower height of 15m and a minimum life span of 20 years;
- Turbines are temporary structures in nature being held in place by a small foundation and therefore they are easy to remove after they are no longer required;
- Landscape impact from the erection of the turbine will be minimal;
- The location of the turbine is relatively remote and will have a limited impact on the nearest dwellings.
- Noise impact produced will be minimal;
- The turbine is sited in accordance with Natural England guidance;
- The proposed turbine will provide a valuable contribution to overall outputs of renewable energy in line with the Central Government targets;
- The proposal demonstrates that environmental, economic and social benefits have been

carefully considered through the choice of location, scale and design.

16.4 Section 38 (6) of the Planning & Compensation Purchase Act 2004 requires that planning applications be determined in accordance with the development plan unless material considerations indicate otherwise. The application is considered to comply with the relevant policies of the adopted development plan and there are no material considerations that indicate why planning permission should be refused.

aspire
aspireplanning.co.uk

BRISTOL 0117 929 2282 WESTON S MARE 01934 643 934 TAUNTON 01823 245 245
EMAIL info@aspireplanning.co.uk WEB www.aspireplanning.co.uk

Aspire Planning Ltd. Registered in England No: 06752487. Registered Office 3 Wellington New Road, Taunton, Somerset TA1 5LU