EAGLE POWER

WIND TURBINE
DESIGN & ACCESS STATEMENT

2009

Eagle Power is a trading name of Gumbley & Company Limited, a limited company number 1644240 at the above registered office

BWEA REAL MCS 1263

1.0 Background

1.1 Section 42 of the 2004 Planning and Compulsory Purchase Act requires that a statement covering design concepts and principles and access issues be submitted with an application for planning permission.

1.2 Section 3 of Department of Communities and Local Government Circular 01/06 'Changes to the Development Control System', further outlines that a statement illustrate how design and accessibility aspects have been considered in the proposal, outline the rationale applied and how this relates to the local context.

1.3 The purpose of this Design and Access Statement is therefore to provide a better understanding of the proposal, which involves the erection of a Proven domestic scale wind turbine as part of a renewable energy scheme.

1.4 This Design and Access Statement shows how regard has been had to national planning policy guidance Planning Policy Statement 1 (PPS1) Delivering Sustainable Development and other relevant planning policy guidance notes.

1.5 The statement has also been prepared to assist in the consultation process and help inform the Council and public about the merits of the application.

2.0 Planning Policy Context

2.1 PPS22 Renewable Energy advises policies recognise specific location requirements of renewable energy sources and the potential for exploiting them. Small scale projects, it considers, can provide a limited but valuable contribution to overall outputs of renewable energy.

2.2 It recommends planning applications be assessed against specific criteria set out in Regional Spatial Strategies (RSS).

2.3 Paragraph16 of the policy statement refers to most renewable energy sources can only be developed where the resource exists. It further acknowledges in paragraph 20 that wind turbine developments will have the greatest visual landscape effect. This effect however is not regarded as an absolute constraint against the erection of wind turbines.

2.4 It can therefore be seen that the needs associated with accommodating the location requirements of a wind turbine are considered a material planning consideration. Wind energy can only be exploited where the wind energy strength is of sufficient force to enable the turbine to function properly.

2.5 In selecting the application site, full regard has therefore been had to this planning policy advice, and as such should weigh in favour of the proposal.

2.6 Regional Planning Policies in RSS also advise that there is a need to increase renewable energy and reduce GHG emissions by:

- maximising improvements to energy efficiency and increase renewable energy capacity
- reducing GHG emissions by maximising the use of power sources
- providing for new efficient energy generation in keeping with local amenity

2.7 The need for such development and ensuring operational efficiency is again emphasised.

2.8 It is recognised that at district level, local planning policies concerning land designation, amenity, environment and local renewable energy policy guidance also apply.

2.9 This Access and Design Statement is not however intended to address such matters, given that other planning supporting evidence is presented as part of the planning submission. This statement is primarily intended to address design and access matters.

3.0 Design and Access Statement

Location& Setting

3.1 The site is located approximately 50mtrs from existing farm buildings at South Moor Farm in Dalby Forest.

3.2 The primary land use in the area is livestock grazing in Dalby Forest.

3.3 The site is situated in a relatively open setting. The location of the proposed turbine has been selected in order to benefit from the prevailing winds, contour heights and to avoid potential amenity/safety concerns that might impact on visitors/residents in the area.

3.4 It is important to maximise the incident of wind on turbine blades. EST Best Practice Guide, produced on behalf of the government notes "Wind speed increases with height and even small increases in turbine height can produce significant improvements in performance"

3.4 The site is considered relatively well located to accommodate a wind turbine because it is located where wind speeds can be effectively harnessed and because it is: (X)

[X] - situated where it can best integrate into the landscape
[ ] - set below the horizon/skyline
[ ] - is viewed with a hillside backdrop
[X] - viewed in association with nearby buildings/other rural features which help subdue the visual impact of the proposed development
[X] - located well away from residential properties
[X] - located well away from public footpaths/bridleways being on privately held land.

4.0 Design

4.1 PPS1 'Delivering Sustainable Development' considers good design is a key element in achieving sustainable development, it being considered indivisible from good planning. It states:
"*Good design should contribute positively to making places better for people. Design which is inappropriate in its context or which fails to take the opportunities available for improving the character and quality of an area and the way it functions should not be accepted.*"

4.2 It is therefore necessary to establish if a development is appropriate in its context and/or can be seen to have regard to its surroundings to ensure it can effectively function.

4.3 Relative to this guidance the following factors are presented to support the design of the proposal and provide a rationale for its location on the site in question:

- the proposal is for one wind turbine of a domestic scale with colour finish of matt black turbine head and blades and dull grey mast. The scale and colour combination helps reduce the development's visual impact on the landscape
- materials include: slim line mast - galvanised steel; turbine head-plastic; blades-Twintex
- the built concrete footprint will be only 3 square metres in size, providing a base upon which a base plate and self supporting mast can be installed
- the cabling between the turbine and property to be served will be underground and will not visually affect the local environment; neither will such infrastructure work affect the existing drainage pattern or any established public utilities on site
- the Proven turbine is on a tilt up mechanism
- the blades have a tip designed to reduce noise and the operation of the turbine itself; it is currently the quietest on the market as there is no gearbox in the turbine head to emit gearbox sounds
- the turbine size and height has been chosen because it best serves the energy needs of the applicant and household

- its location has been chosen to benefit from distance from properties and roads / public rights of way
- set in a relatively exposed location, with open topography the development is able to benefit from high unimpeded wind speeds

4.4 All dimensions and specifications are shown on the submitted plans and also in the Eagle Power planning information pack. The design of the turbine and its siting therefore, shows that it is both fit for purpose and that its function is best suited to benefit from the location shown on the submitted plan.

4.5 The PPS1 remit is concerned with more than design issues. Its guidance seeks to address wider social, environmental and economic objectives through the development process to achieve totally sustainable and inclusive communities both in urban and rural areas that take into account the needs of the community.

4.6 The erection of this wind turbine achieves this by:

- contributing to renewable energy generation
- helping to meet the energy needs of the applicant's property in a cost effective way, countering existing fuel deficiency
- contributing to meeting the energy needs of the wider community, helping it become more inclusive
- reducing green house gas emissions by creating energy from a renewable resource in an efficient way due to application of good design principles and application of an appropriate location for the development.
- helping to reduce the effects of climate change evidenced by rising global temperatures, rising sea levels and increased flooding events in our river valleys and plains.

4.7 It is the wider environmental benefits, which provide an acknowledged special circumstance for acceptance of an increased visual presence of wind turbines in our landscape. The overall growth, nationally in turbine development suggests an acceptance of this form of development as a design solution that effectively helps address some of the social and environmental problems outlined.

4.8 Such a development trend is supported by other complementary initiatives. A supplement to PPS1 **"Tomorrow's Climate, Today's Challenge"** makes reference to the government's Climate Change Bill which commits the UK to reduce carbon dioxide emissions by the year 2020 by 26%-32% from 1990 levels, and a reduction by 60% by 2060.

4.9 This can only be achieved if the merits associated with renewable energy initiatives, such as the wind turbine application proposal, are more fully accepted by the planning process.

4.10 Specific weight therefore needs to given to the design features incorporated in this development, and more positive recognition given to how this design effectively exploits wind power if located where prevailing wind strength enables this to happen.

4.10 For all the said reasons the design of this wind turbine is able to satisfy most planning policy and amenity considerations.

5.0 Access

5.1 The site and land under the applicant's control can be adequately accessed from the wider highway network and from within the site to enable construction, annual servicing and maintenance of the proposed turbine.

6.0 Conclusion

6.1 The information provided has sought to address Design and Access matters. Should additional information be required on this aspect, please contact the applicant/agent who will only be too pleased to assist.