Planning Support Statement

ENVIRONMENTAL & ECONOMIC BENEFITS

Dated 29th April 2013

Applicant:	Mr L Maw
Proposed Development:	Installation of 1 No medium scale 50Kw Endurance wind turbine on a 25m monopole mast
Site Address:	Land at Westfield House Farm, Brockholes Lane, Penistone, Sheffield, S36 9FB

1 Introduction

1.1 Renewable energy development projects should be capable of being accommodated throughout England in locations where the technology is viable and environmental, economic and social impacts can be addressed satisfactorily.

1.2 The NPPF published on Tuesday 27th March 2012 contains new policy guidance which is an important and material planning consideration that should be given significant weight when taking decisions. It replaces all previous Planning Policy Guidance notes and Planning Policy Statements and requires Local Planning Authorities to produce up to date development plans incorporating the new guidance.

1.3 The NPFF introduces a presumption in favour of sustainable development, indicating that such development should proceed without delay. The proposed wind turbine on land at Westfield Farm is by definition sustainable development that will benefit the national and local economy and enhance the natural environment.

1.4 The transition to a low carbon future is a core principle of the NPPF and it positively encourages the use and development of renewable energy. It sees this as central to the economic, social and environmental dimensions of sustainable development.

1.5 NPPF also states that “when determining planning applications local planning authorities should recognise that even small-scale development provide a valuable contribution to

cutting greenhouse gas emissions; and approve the application if impacts are (or can be made) acceptable."

1.6 In making decisions Local Planning Authorities are required, where the development plan is out of date to grant planning permission unless any adverse impacts of doing so would significantly and demonstrably outweigh benefits, when assessed against the policies in the Framework taken as a whole. The 12 month 'transition period' granted to local planning authorities to up-date their development plans has now expired and full-weight must now be given to the NPPF, regardless of the age of a development plan , if there is a degree inconsistency or conflict.

1.7 In this particular case all environmental issues have been satisfactorily addressed and it is clear that on balance the economic and environmental benefits (in particular the production of renewable energy, the reduction of greenhouse gases and the support and diversification of an agricultural business) are afforded significant weight in accordance with the NPPF and these weigh heavily in favour of our proposal and as such planning permission should be granted.

1.8 The proposal on land at Westfield Farm will be sited in a location with a good wind resource (6.5 m/s) where energy output and performance and the income generated will meet the environmental and economic needs of applicant.

1.9 The design, scale and appearance of the development has been considered and both technical and environmental factors have been examined to determine, on balance, the most appropriate site and type of wind development that optimises energy production and satisfactorily addresses environmental, economic and social impacts. Although there will be some harm to the open character of the Green Belt this harm is clearly outweighed by benefits. The design and selection process and our assessment of impacts are outlined in our accompanying Design & Access Statement and Environmental Statement.

1.10 The proposed turbine:

- Is an elegant and slender vertical structure that has a specific presence. Although sited in Green Belt it will be seen as a new as a new marginal feature in the landscape and has been sited as close as possible to the farm complex without compromising performance and viability. It will have only a modest impact upon openness and will not block the expansive view; it
- will be sited in a landscape that has no national designation and is regarded as of moderate sensitivity to this type, nature and scale of development;
- Overall aggregated visual impact will be moderate; it
- will not impact on local wildlife or protected species as the site is of relatively low ecological value; it
- has been sited an adequate distance from neighbouring properties so as not to cause noise disturbance or shadow flicker, it

- will not affect the recreational use of local footpaths and
- will not adversely affect the historic setting of listed buildings or other heritage assets.

2 Benefits

2.1 Local Planning Authorities should consider the wider environmental an economic benefits of renewable energy projects, whatever their scale and these are material considerations that should be given significant weight in determining whether proposals should be granted planning permission.

2.2 Wider environmental and economic benefits (which include the increased production of energy from renewable sources) can also be used to demonstrate very special circumstances to clearly outweigh any harm by reason of inappropriate development which may impact on the openness of the Green Belt or have an adverse effect on a nationally designated area such as a National Park, Area of Outstanding Beauty, Sites of Special Scientific Interest, National Nature Reserves, Heritage Coasts, Scheduled Monuments, Listed Buildings, Registered Historic Battlefields and Registered Parks and Gardens.

2.3 The wind turbine proposed on land at Westfield Farm will generate significant economic and environmental benefits and these weigh heavily in favour of our proposal.

2.4 Summary of Benefits

The proposed development will: -

- generate an estimated **195,000kW annually** - enough electricity to power the equivalent **of 59 average homes**;
- provide a secure electricity supply for farm/ business and reduce overall energy costs;
- help reduce carbon emissions saving **102 tonnes** of carbon every and help the farm/ business to become carbon neutral;
- help meet the Government's Renewable Energy Target for 2021;
- support the rural economy
- create the equivalent of **5.5 new jobs** (where 1 job is equivalent to 50 person weeks) over its lifetime through its manufacture, construction and maintenance;
- Help protect **2 full time jobs and 4 part time jobs;**
- generate new income to invest in the farm business for the long term, help support and grow a new business venture; thereby protecting and creating local jobs;
- enable the landowner to continue to maintain and manage the rural landscape, thus helping to protect the character and appearance of the area and encourage biodiversity

2.5 **It is clear and beyond doubt that on balance the benefits of this development demonstrate special circumstances that significantly outweigh the harm to the openness and character**

of the Green Belt. It constitutes sustainable development and contributes to several of the core principles of the NPPF and therefore should be given favourable consideration.

APPENDIX 1
ECONOMIC AND ENVIRONMENTAL BENEFITS

Renewable Energy

A1 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 an important element in achieving the Government's international commitment to reduce greenhouse gas emissions. The UK has a commitment underpinned by the Climate Change Act 2008 to reduce carbon dioxide levels by 42% less than 1990 levels by 2020 and by 80% by 2050.

A2 The UK Government also made a commitment under The Energy White Paper (2007) that 10% of UK electricity should come from renewable energy by 2010 and 20% by 2020.

A3 The increased development of renewable energy resources is vital to facilitating the delivery of the Government's commitments on both climate change and renewable energy and the NPPF advocates positive planning to facilitate renewable energy development that can contribute to the key principles of the Government's sustainable development strategy:

- Social progress which recognises the needs of everyone - by contributing to the nation's energy needs, ensuring all homes are adequately and affordably heated; and providing new sources of energy in remote areas;

- Effective protection of the environment – by reductions in emissions of greenhouse gases and thereby reducing the potential for the environment to be affected by climate change;

- Prudent use of natural resources – by reducing the nation's reliance on ever diminishing supplies of fossil fuels; and,

A4 The proposed turbine at Westfield House Farm will deliver significant benefits towards all four elements of the sustainable development strategy and as such adds significant weight to our planning application. It will contribute towards the reduction of greenhouse gases by saving approximately **102 tonnes of carbon dioxide per year** (at least 2045 tonnes over twenty years) and generate an average of **195,000kWh of electricity per annum** from renewable sources reducing our reliance on fossil fuels. This is equivalent to the electricity usage of **59 family homes.** All energy generated will be fed back to the national grid to meet national renewable energy targets.

A5 The farm/ business currently use 50,000 kWh of electricity per year and it is anticipated that this will double to 100,000 kWh over the next 5 years as the business grows. The farm also uses 5,000 litres of oil each year to provide heating to the farmhouse and outbuildings. Once the turbine is installed oil fired heating will be converted over to electric. As well as utilising a renewable energy source this will also have other environmental benefits such as reducing the number of deliveries to the farm. Total energy usage is therefore predicted to be

125,000 kWh per year and therefore on average **65%** of the electricity generated by the turbine will be used onsite with 35% going to the Grid.

A6 In April 2011 the Renewable Energy Foundation published a report entitled Renewable Output in 2010. The report uses data provided by the Department of Energy and Climate Change and data made available as part of Ofgem's reporting of subsidy claims under the Renewable Obligation. It concludes that the UK failed to reach its 10% renewable electricity target for 2010 producing only 6.5% of electricity from renewable sources – a shortfall of more than one third of the target figure which puts extreme pressure on the delivery of targets for 2021.

A7 It is clear that fundamental change is required to bring about greater public awareness of the benefits of wind energy, political support locally for wind energy schemes and greater support and understanding from local planning authorities particularly for small/medium scale wind developments located in areas which have low-medium sensitivity to wind developments, where the wind resource is good and where on balance potential environmental impacts can be satisfactorily addressed.

Environmental Management

A8 Farming has shaped the landscape for thousands of years and farmers provide an important stewardship role helping to protect and manage the environment. This may be at risk if farms are not allowed to adapt and diversify and this includes investment in new technology, new plant and processes and the development of new business opportunities. Investment in cheaper, cleaner energy is an important part of this process. The development of a wind turbine at will bring new investment into the business and facilitate continuing improvements to buildings and infrastructure and fund on-going programme of maintenance of the farm's extensive estate.

A9 The Farm is part of a registered Environmental Stewardship Scheme- and under this scheme the farm has agreed to repair and maintain hundreds of metres of its dry stone walls in order to help protect the distinctive character of the area. Income generated through the proposed wind turbine will assist the long term repair and maintenance of these important landscape features as well as enable the farm to manage its woodlands, unproductive farmland, hedgerows and protect the ecology of Coal Pit Dyke which runs through the middle of the farm.

A10 If agricultural businesses are not able to diversify (particularly on the more marginal Pennine fringe), and allowed to fail then their management role will cease and the character and appearance of the countryside as we know it will change irrevocably forever. Viable farms are essential if the rural landscape is to continue to be managed; thereby protecting its distinctive character, maintaining its condition and environmental quality and encouraging biodiversity.

Supporting Business and Economic Growth

A11 The new NPPF reforms the planning system to promote sustainable economic growth and jobs. It introduces a strong presumption in favour of sustainable development and requires local planning authorities to plan positively for new development and to deal promptly and favourably with planning applications that comply with up to date national planning policy. When determining applications local planning authorities are obliged to have regard to all

relevant considerations to support economic recovery including energy, environmental, transport and heritage consents. They should support enterprise and give appropriate weight to economic, environmental and social benefits of proposals; including long term or indirect benefits such as increased consumer choice, more viable communities and more robust economies (which may, where relevant, include matters such as job creation and business productivity. The NPPF is highly relevant to renewable energy developments.

A12 The proposed development, although modest in scale, will stimulate economic growth and create jobs. A wind turbine is an essential part of the farm's business plan to modernise and diversify the farm to ensure that it remains viable in a very competitive industry.

A13 The 100 acre beef cattle and pig farm also operates a successful farm shop and employs **2 full-time and 4 part time staff** and supports other small businesses and sub-contractors in the local supply chain. It has a small but significant turnover and is an important player in the rural economy of Penistone. The farm shop specialises in high quality, locally sourced produce and promotes high animal welfare standards and has an environmentally friendly ethos. The proposed turbine is a key component of our plan to improve energy efficiency, lower energy costs, reduce our reliance on fossil fuel and enable the business to become carbon neutral.

A14 Income generated through feed in tariffs will be invested in the farm business and it is essential to the future prosperity of the farm as a whole, enabling it to succeed in the long term. Income will be specifically used as seed funding to support the development of a new business venture – Hacking Hill Event Catering – which was launched last year and now needs additional funding to grow and expand the business to the next level and hopefully create new jobs. In the long term the additional income will be used to help buy new machinery and equipment and invest in new technology to ensure it remains at the forefront of a very competitive industry and thus protect local jobs.

A15 The Farm and shop (with its chiller cabinets and refrigeration units) uses a considerable amount of electricity. The supply of clean and affordable electricity is very important. It will enable the farm shop business to reduce its energy costs, keep its margins low and allow it to supply produce at prices that are attractive to consumers and remain competitive against larger retailers and supermarkets

Job Creation

A16 The design, construction and project management of the proposed wind development will create an equivalent of **4 full time** jobs (measured as 1 job equal to 50 person weeks and calculated using the former RDA's/ European Commission job creation methodology). It will also help test the development of new technologies assisting the future process of research and development in the growth industry of wind turbine manufacture. A further **1.5 full time jobs** will be created over the expected 20 year lifetime of the turbine through regular maintenance and servicing contracts.

APPENDIX
METHOD OF CALCULATION

Wind Speed
This is estimated at **6.5 m/s** (at 25m hub height) using the national wind map – i.e. NOABL wind speed database produced by the Department of Trade and Industry which provides a record of estimated average wind speeds across the UK. This does not provide an accurate, site specific wind speed but a general guide to the likely annual average wind speed for that area (i.e. based on a figure for each per square kilometre). Local topographical conditions and obstructions may increase or decrease actual wind speed.

Energy Generation
This is calculated from the manufacturer's power curve using the estimated average wind speed above. A copy of the power curve is in the manufacturers brochure enclosed with this application. At **6 m/s** the turbine will produce an estimated annual average output of **195,000 KWh** per annum.

Equivalent Consumption
The turbine will generate sufficient energy to power the equivalent of **59 average homes**. This is calculated using Ofgem's Typical Domestic Energy Consumption Figures for 2011. The typical electricity consumption for an average home is **3,300 kWh per year**. This is based on median values rather than the mean. The equivalent consumption figure was calculated by dividing the estimated annual energy generation by the electricity consumption for the average home. This provides an estimate for the number of homes the proposed turbine could potentially provide electricity for. This is a representative figure.

Carbon Savings
Carbon savings represent the amount of CO2 saved by generating renewable energy (where emissions are assumed to be zero) as an alternative to Grid electricity. A conversion factor is used. This is multiplied against the amount of renewable electricity generated per year to give an estimate for annual carbon savings. A conversion factor of 0.5246 has been used. This is means that 1 kWh of Grid electricity is equivalent to 0.5246 kg of CO2. This figure has been taken from the Carbon Trust's "Energy and Carbon Conversions 2011 Update" and the source of the figures comes from DECC published August 2011.
The calculation is therefore (195,000 kWh x 0.5246)/ 1000 = **102 tonnes of CO2 pear year**

Jobs Protected
These figures are provided by the applicant and represent the number of people employed either by the farm or his whole farming business/ enterprise.

Business Turnover
This is an estimate provided by the applicant or his/her business.

Jobs Created
This represents an estimate of the value of the proposed development to the local, national and international economy. The assembly, construction and maintenance of the turbine will solely

benefit the UK. The majority of the main components of the turbine are manufactured outside the UK.
In calculating job creation methodologies used by the European Commission and the former Regional Development Agencies have been adopted and adapted to provide an estimate of jobs created. 1 full time job equivalent is equal to 50 person weeks (i.e. equivalent to one person in one full time job for one year).
Jobs are calculated by using multipliers which are weighted for different stages of the development process.

For manufacture, construction and maintenance it is estimated that 5.5 jobs will be created. This is calculated as follows: -

Manufacture and Construction
For Manufacturing a factoring value of £80,000 per average job has been used. (This takes account of materials, labour, overheads and profit and assumes £80,000 of sales is required to create one average job across all disciplines).
For Construction a factoring value of £60,000 per average
The estimated total cost to manufacture and supply the turbine is assumed to be £180,000
The estimated total cost to construction and install the machine (including infrastructure works) is assumed to be £120,000
The calculation is therefore (£180,000/£80,000) + (£120,000/£60,000) = **4.25 (rounded down to 4 jobs)**

Maintenance
For maintenance a factoring value of £60,000 per average job has been used.
The cost of basic maintenance of the machine is estimated to be £5000. This does not include any replacement of major parts.
The average life of a machine for the purposes of this exercise is assumed to be 20 years.
The calculation is therefore (5 x 20)/60,000 = **1.66 (rounded down to 1.5 jobs)**

The job creation figures do not include any in-direct jobs that may be created through the significant income generated by the turbine that will either be re-invested into the applicants business, home or the general economy.

Income Generation

For confidentiality reasons no figure or method of calculation has been included for this.