

## 4. PROPOSED SCHEME

The scheme being proposed is based on the installation of 3 wind turbines of 2 MWe each. The proposal is based on Vestas V80 turbines with a hub height of 80 m and a rotor diameter of 80m. The locations are shown on the map at Figure 3.

A drawing of the Vestas V80 is shown at Figure 4 below.

The scheme will export at all times.

The electricity produced will be capable of providing the needs of 3300 homes. This is a significant proportion of the 4 -5,000 homes in Baldock.

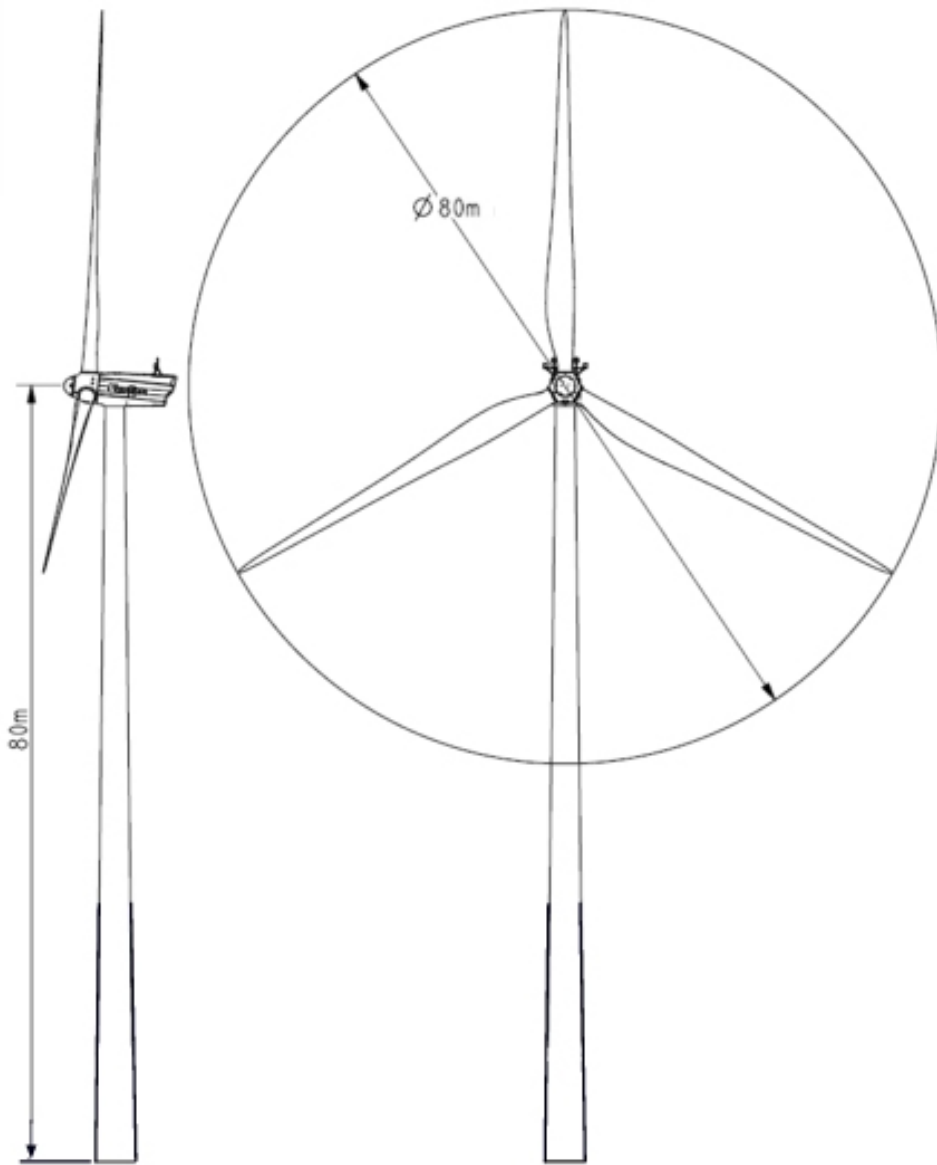
Wind power generation has some distinct benefits with regards to greenhouse gas abatement. 15,300 tonnes of Carbon Dioxide greenhouse gas emissions per year will be avoided by this scheme.

The comparison of energy used in manufacture with the energy produced by a power station is known as the 'energy balance'. It can be expressed in terms of energy 'pay back' time, i.e. as the time needed to generate the equivalent amount of energy used in manufacturing the wind turbine or power station.

The average wind farm in the UK will pay back the energy used in its manufacture within six to eight months, this compares favourably with coal or nuclear power stations, which take about six months.

4 drawings are attached to this application.

No	Name	Filename
WB001	Layout of Wind Turbines and Switchroom	WB001.dwg
WB002	Layout of Access and Switchroom	WB002.dwg
WB003	Wind Turbine detail	WB003.dwg
WB004	Wind Speed Mast	WB004.dwg



Scale 1:625  
@ A4 print

Figure 1 Wind Turbine Drawing

## 4.1 Options for The Scheme

The positions of the wind turbines are not easily adjusted because of the separation requirements to avoid turbulence interaction between the turbines and other limitations of the site.

Turbine 1 is located 30m from the nearby hedge and turbine 3 is located 60m from an isolated large tree. Turbine 2 is located as close to the field boundary as possible. There is an overhead power line running across the field and several microwave links nearby which introduce physical constraints.

An independent wind power generation company submitted a proposal to Weston Park Farms to erect 13 wind turbines. This was rejected and the present, more balanced scheme selected.

Later in this report, a series of photo-montages is presented to show the visual impact of the scheme. It is relevant here to show the potential impacts of the rejected scheme. Figure 5 shows photomontages from Lannock Hill on the edge of Weston and from the A505 bypass north of Baldock.



**Figure 2 Photomontages of Rejected Scheme**

Larger machines were considered, but these would have been 100 m high to the blade hub, and smaller machines would have required more turbines to achieve the output. Space is not available for increased numbers and so the selection has been targeted at 3 machines of about 2 MWe capacity each.

## **5. PLANNING POLICY**

The case for renewable energy is based on the control of greenhouse gases. This has been drawn into Government targets and objectives through the Kyoto Protocol, the first legally binding international treaty requiring developed nations to cut their emissions of greenhouse gases. The UK Government has set a domestic goal to go beyond the Kyoto commitment and cut the UK's emissions of carbon dioxide (CO<sub>2</sub>) to 20% below 1990 levels by 2010. The Energy White Paper 'Our energy future - creating a low carbon economy' (2003) sets a further more long-term goal of reducing CO<sub>2</sub> emissions by 60% below current levels by 2050.

A substantial proportion of UK CO<sub>2</sub> emissions come from the energy sector, and increasing use of renewable energy will play a vital role in reducing these. Renewable energy sources currently contribute nearly 3% of the UK's electricity needs. To meet the UK government's renewable energy targets this contribution will need to be increased to 10% by 2010, 15% by 2015, and 20% by 2020.

Renewable energy is a critical resource to allow the UK to meet its commitments on climate change.

### **5.1 ENTEC Review**

Hertfordshire County Council have carried out a review of the issues surrounding wind turbines in the County. The following sections 5.1.1 to 5.1.15 are extracted from that report to assist in presenting the fullest picture of the objectives at every level of planning management.

#### **5.1.1 Climate change**

The release of so-called greenhouse gases into the atmosphere is now widely acknowledged to be a significant contributor to climate change. The most significant source of man-made greenhouse gases is the carbon dioxide released during the combustion of fossil fuels when they are used for generating electricity, producing heat or when used as a fuel for transportation.

The mitigation options available include reducing energy demand (by adopting energy efficiency measures), possible use of carbon sequestration technologies, and using alternative low carbon or renewable energy supplies.

#### **5.1.2 Kyoto and Europe**

In December 1997, representatives of Governments from around the world met to negotiate in Kyoto, Japan, attempting to reach agreement on actions to deal with the most serious environmental problem facing the world: climate change.

The European Union (EU), which had a key-negotiating role at the conference, agreed to push for the basket of greenhouse gases to be extended, and for a 15% reduction of carbon dioxide and other greenhouse gas emissions by the year to 2010. Within this, different targets have been set for EU member states, which range from a 25% reduction for Germany, to a 10% reduction for the UK. The UK has argued that the EU should go further and is committed to reducing carbon dioxide emissions by 20%.

The UN Framework Convention on Climate Change, which resulted from the Kyoto Protocol in 1997, established global targets for the reduction of greenhouse gas emissions.

The current global target is to achieve a 5% cut in greenhouse gas emissions on 1990 levels by 2008-2012. The Royal Commission on Environmental Pollution (RCEP) has suggested that cuts in the order of 60% over 1990 levels within the next 50 years are required.

The EU target for national supplies of renewable energy is being enacted through the so called Renewable Energy Directive (2001/77/EC) which requires 12% of European energy supplies, and 22.1% of electricity, to be sourced from renewable energy by 2010. For the UK the Directive stipulates an indicative target of 10% by 2010.

### 5.1.3 UK

The recently released Energy White Paper, which sets out the UK government's energy policy for the coming years, is supportive of measures to reduce CO<sub>2</sub> emissions, including increased renewable energy generation and uptake of energy efficiency measures. The Energy White Paper aspires to 20% renewable electricity generation by 2020 and also endorses the recommendations of the RCEP to reduce CO<sub>2</sub> emissions by 60% from current levels by 2050. The Government intends that the Renewable Obligation Order (ROO) of 2002 will help deliver the immediate UK target (derived from the EU Renewable Energy Directive) of about 10% of electricity supplies to be derived from renewable sources by 2010. It is estimated that 10% renewables will be equivalent to about 38,000 GWh of electricity and will require construction of a further 6 - 8,000 MW of capacity (depending upon the technologies applied and the load factor they can achieve).

The UK's Climate Change Programme recognises that fossil fuels used for the generation of power, for heating and for transport form the major contribution to greenhouse gas emissions.

As a result, the strategy to reduce greenhouse gas emissions forms the heart of the programme.

The principal features of the Climate Change Programme are:

- to improve business use of energy, stimulate investment and cut costs;
- stimulate new, more efficient sources of power generation;

- cut emissions from the transport sector;
- improve the energy efficient requirements of the Building Regulations; and
- ensure the public sector takes a leading role.

The Climate Change Programme has, at its heart, the objectives of sustainable development. The UK's Government strategy for sustainable development, "A Better Quality of Life" identifies four objectives that need to be addressed to achieve sustainable development, all of which have implications on the generation and use of energy and the consequent reduction of greenhouse gas emissions. These are:

- social progress which recognises the needs of everyone;
- effective protection of the environment;
- prudent use of natural resources; and
- maintenance of high and stable levels of economic growth and employment.

In the document "New and Renewable Energy: Prospects for the 21<sup>st</sup> Century", the key aims of the Government Policy are given as:

- assisting the UK to meet national and international targets for reducing greenhouse gases and other emissions;
- helping to provide secure, diverse, sustainable and competitive energy supplies;
- stimulating the development of new technologies;
- helping the UK Renewables Industry become competitive in home and export markets; and
- contributing to rural development.

The Government believes that its aims for renewables can be best met within the framework of the competitive market, giving industry the greatest opportunity for technical innovation so that renewables can be made increasingly cost effective. The key elements of the policy are:

- the introduction of a Renewables Obligation (which succeeds the Non-Fossil Fuel Obligation (NFFO));
- the exemption of renewable energy from the Climate Change Levy;
- an expanded support programme for new and renewable energy; and
- a regional strategic approach to planning and regional targets for renewable energy.

#### 5.1.4 The Renewables Obligation Order

The ROO requires electricity suppliers to source increasing proportions of their total supply from renewable sources, up to about 10% by 2010. They can do this by building and operating their own renewable electricity production facilities or by purchasing renewable electricity from other producers. Renewable electricity producers are certified by the electricity regulator, Office of Gas and Electricity Markets (OFGEM), who presents

them with Renewable Obligation Certificates (ROCs) for each unit (MWh) of renewable electricity produced.

Electricity suppliers then submit annually the requisite number of ROCs in accordance with their obligation. Those holding insufficient ROCs pay a penalty, or 'buy-out', price (currently about £31/MWh and increasing each year) for the shortfall. A 'recycling' mechanism results in the penalty payments being recycled back to electricity suppliers in accordance with the number of ROCs they present. If there are insufficient renewable energy production facilities to meet the obligation, then this recycling mechanism eventually results in ROCs becoming more valuable than the buy-out price. This acts as an incentive to new developers and investors to build more renewable energy production facilities.

The ROO does not cover all renewable electricity sources, as permitted by the European Renewable Energy Directive. The Directive permits inclusion of electricity derived from large hydro and energy from waste plants within renewable electricity totals. These are specifically excluded from the ROO scheme, although energy from waste is currently permissible if advanced thermal technologies are employed (such as anaerobic digestion and pyrolysis/gasification).

A technical review of the ROO is currently underway which is exploring a number of issues relating to the implementation of the regulations, including the eligibility of electricity produced by conventional energy from waste technologies.

The Government has recently stated its aim to extend the Order to a target of about 15% of electricity supplies by 2015 although this is yet to pass through primary legislation.

#### **5.1.5 Current UK renewable energy production**

It is clear that even the current Government target of 10% of electricity supplies from renewable energy sources by 2010 is ambitious given the current levels of renewable energy deployment.

In 2003, some 13,400 GWh of electricity were produced from renewable sources. This is equivalent to 3.9 % of the UK's total net electricity production in 2003.

#### **5.1.6 National Planning Policy**

Current national planning policy guidance on renewable energy is set out in PPS22, which requires planning policies at regional and local levels to provide an effective framework encouraging renewable development.

Sustainable development is one of three themes at the heart of the Government's vision for the new planning system (Introduction to PPS1 'Creating Sustainable Communities'). In line with clause 38 of the Planning and Compulsory Purchase Bill, PPS1 stipulates that local plans must be

prepared “with a view to contributing to the achievement of sustainable development”.

In this context, PPS1 states that:

*“Policies should reflect a preference for minimising the need to consume new resources over the lifetime of the development by making more efficient use or reuse of existing resources rather than making new demands on the environment; and for seeking to promote and encourage rather than restrict the development of renewable energy resources. Consideration should be given to encouraging energy efficient buildings, community heating schemes and the use of combined heat and power in developments”.*

PPS12 ‘Local Development Frameworks’ (LDF) requires Local Development Documents (LDDs) to include a core strategy setting out the key elements of an area’s planning framework. This is to consist of a vision, strategic objectives, a spatial strategy, a number of core policies and a monitoring and implementation framework. In terms of delivering the renewable energy/resource efficiency requirements of PPS1 and PPS22, this can be translated into:

- a vision to ensure that development decisions are based on the achievement of sustainable development principles (including the sustainable production and use of energy);
- strategic objectives that encourage resource efficiency and sustainable energy; and
- a core policy that commits the LDF to the delivery of renewable energy resources and to development that maximises energy conservation.

#### **5.1.7 Supplementary Planning Documents**

Paragraph 7 of PPS22 states that “more detailed issues may be appropriate to supplementary planning guidance”. The following is the guidance quoted in paragraphs 2.42-2.43 of PPS12: Local Development Frameworks:

*“Where prepared, supplementary planning documents should be included in the local development framework and will form part of the planning framework for the area. They will not be subject to independent examination and will not form part of the statutory development plan. However, they should be subjected to rigorous procedures of community involvement.*

*Supplementary planning documents may cover a range of issues, both thematic and site specific, which may expand policy or provide further detail to policies in a development plan document. They must not however, be used to allocate land. Supplementary planning documents may take the form of design guides, area development briefs, master plan or issue-based documents which supplement policies in a development plan document.”*

### 5.1.8 Central Government Targets

Central Government has implemented targets through planning policy statements and guideleines.

Planning Policy Statement 22 advises that Regional Planning Bodies should set targets for renewable energy *"taking into account the (positive or negative) environmental, economic and social impacts that may result from exploitation of that resource potential"* (ref).

PPS22 states that *"criteria based policies should be set out in regional spatial strategies where these can be applied across a region or across clearly identified sub-regional areas. These criteria should then be used to identify broad areas at the regional/sub regional level where development of particular types of renewable energy may be considered appropriate"* (para 7) and *"where appropriate, targets in regional Spatial Strategies may be disaggregated into sub-regional targets"* (para 5).

The Companion Guide to PPS22 recognises that the development of sub-regional targets is not always appropriate (para 3.15). It also states that *"for sub regional targets, it would be appropriate to report on the work carried out in relation to the distribution of resources and potential for development"* (para 3.19).

The Climate Change Supplement to PPS1 advocates an ambitious and permissive approach to the accommodation of renewable energy development.

Regional planning bodies should *"...set regional targets for renewable energy generation in line with PPS22, and ensure their ambition fully reflects opportunities in the region, are consistent with the Government's national targets and, where appropriate in the light of delivery, are periodically revised upwards"* (paragraph 13).

With regard to regional targets, it states:

*"Targets, and trajectories, can be helpful in assessing successful implementation but only when their likely achievement derives directly or substantially from identified policies in the RSS and the likely means of delivery is consistent with other objectives in the RSS"* (paragraph 15).

However, it also states that *"strategic targets, including any developed for cutting carbon dioxide emissions, and trajectories used to identify trends in performance form part of the framework for planning decisions provided by the RSS. They should be used as a strategic tool for shaping policies and contributing to the annual monitoring and reporting expected of regional planning bodies. They should not be applied directly to individual planning applications"* (paragraph 16).

Regarding Local Development Documents, it states that *"policies should be designed to promote and not restrict renewable and low-carbon energy and*

*supporting infrastructure” (para 19). Planning authorities should “ensure any local approach to protecting landscape and townscape is consistent with PPS22 and does not preclude the supply of any type of renewable energy other than in the most exceptional circumstances” (para 20).*

### 5.1.9 Regional

In 2001, all the English regions were asked to prepare targets for the production of renewable energy. At that time, in the East of England, only 0.45% of regional demand was met from renewable sources (the UK figure was 2%).

As part of the national review, during 2003/4 the East of England Region evaluated available resources against two scenarios; a ‘Business as Usual’ and an ‘Extended Case’ (The Renewable Energy & Land Use Planning Study, “A Report To The East Of England Sustainable Development Round Table : Making Renewable Energy A Reality - Setting A Challenging Target For The Eastern Region”). Following review with stakeholders, the Extended Case was adopted and the following series of renewable energy targets proposed for 2010.

- To produce 14% of the region’s electricity from renewable sources by 2010 (including offshore wind; 10% if offshore wind is excluded) as a first step towards achieving a more significant percentage in the medium term.
- To produce 1,300 GWh/yr of electricity from offshore wind by 2010.
- To produce 1,700 GWh/yr of electricity from onshore wind by 2010.
- To produce 700 GWh/yr of electricity from biomass by 2010.

The report identified the implications for the region as a whole of meeting these targets:

- Reduction in CO<sub>2</sub> emissions by (9%) 5 million tonnes.
- Development of 350 MW of offshore wind turbines. This figure equates to about 150 turbines.
- Development of 460 MW of onshore wind farms. This figure equates to between 400 and 500 turbines (depending on size).
- Set aside 139,000 extra hectares to energy crops, comprising:
  - 92,000 hectares wood;
  - 20,000 hectares ethanol; and
  - 26,000 hectares bio-diesel.

The report concluded that energy derived from municipal solid waste should be excluded from the Region’s renewable energy targets as a consequence of the opinion expressed by stakeholders that it is not a renewable source of energy.

These regional targets were translated into county targets, with the following proposed for Hertfordshire:

Onshore Wind: 96,000 MWh per year

Biomass: 57,000 MWh per year

Total: 153,000 MWh per year

(The biomass estimates presumed contributions from wood energy crops, landfill gas, bioethanol and agricultural wastes).

Note that 153 GWh per annum will equate to 3% of Hertfordshire's predicted energy consumption in 2010. Other counties in the region considered to have more favourable resources and more opportunities to exploit their resources were given significantly higher targets (e.g. Norfolk - 17%).

In December 2004, the East of England Draft Regional Spatial Strategy was published and referred to renewable energy and regional planning policy. The document confirmed that the 14% by 2010 target (including offshore wind) has been adopted in the Regional Sustainable Development Framework. It also confirmed a target for 2020 of 17% renewable energy (excluding offshore wind, or 44% including offshore wind contribution) expressed as a percentage of total electricity consumption in the region.

#### 5.1.10 County of Hertfordshire

This section sets Hertfordshire's energy consumption in context and provides an overview of the relevant energy-related policy and initiatives within Hertfordshire that are targeting carbon reduction.

#### 5.1.11 Energy Mix

Table 1 details the electricity consumption by domestic and commercial sector for each local authority within Hertfordshire.

Local Authority	Total sales 2003 (GWh)	Average Domestic Consumption (kWh per metered consumer)	Average Commercial Consumption (kWh per metered consumer)
Broxbourne	361	4,901	63,074
Dacorum	614	4,787	70,128
East Hertfordshire	665	5,502	67,403
Hertsmere	422	5,124	67,901
North Hertfordshire	544	4,929	56,193
St Albans	504	4,918	50,837
Stevenage	405	4,179	113,238
Three Rivers	359	5,208	72,958
Watford	428	4,435	77,783
Welwyn Hatfield	529	4,696	100,815
County Total	4,831 GWh	2,179 GWh	2,652 GWh

Source: DUKES, 2005

#### Table 1 Electricity consumption across Hertfordshire, 2003

Across the county, a total estimated 4,831 GWh of electricity was consumed in 2003. Approximately 45% of this energy was consumed by the domestic sector and 41% by the commercial sector.

(Note that a total of 12,355 GWh of gas was also consumed in the county, approximately 65% consumed in the domestic sector and 35% by the commercial sector. No figures are available for energy consumed in the transport sector.)

Based on these figures from 2003, generating 3% of electricity from renewable resources would mean that 144 GWh of energy should be generated from renewable resources per annum.

This is a slightly lower than the number expressed in the East of England Sustainable Development study, this is considered to reflect the fact that overall electricity consumption is predicted to be increase with population changes to 2010 and beyond.

The scheme proposed will generate about 11% of the proportional target renewable electricity generation for North Hertfordshire

The Ove Arup report reviewing the RSS shows that only 15.5% of the targeted onshore wind schemes for the East of England anticipated to meet the 2010 targets have been completed.

#### **5.1.12 Policy**

In response to the targets set by the East of England and other energy-related obligations and aspirations, Hertfordshire has initiated several schemes and is undertaking many supportive activities.

The adopted Hertfordshire County Structure Plan 1998 gives priority to energy developments based on renewable energy and supports renewable energy in general, provided schemes are located as closely as possible to the source of material used in the process. A general policy requiring all development to achieve the aims of sustainability provides a focus for integrating energy conservation into design and construction.

Policy ENV8 East of England Plan introduces a specific requirement on Hertfordshire districts to contribute towards regional targets. There is a statutory requirement for the Local Development Documents (LDD) to conform with the East of England Plan. Policy ENV8 states that LDDs should contain policies on renewable energy.

The County Plan's waste management policy is based on the waste management hierarchy. The adopted Waste Local Plan sets out locational criteria for the development of waste to energy plants. It also has a policy giving in-principle support to so-called advanced technologies such as anaerobic digestion and pyrolysis/gasification.

The Hertfordshire Waste Strategy confirms the key policy decision not to consider the use of mass-burn waste incineration (beyond existing contractual commitments to utilise available capacity at the Edmondton Energy from Waste plant) as a means of disposing of Hertfordshire's

municipal waste. It confirms emerging thermal treatment technologies such as anaerobic digestion and pyrolysis/gasification as potential solutions.

The Hertfordshire Waste Local Plan Policy 20 states that “When considering planning applications for waste reduction facilities (including incinerators), including those handling agricultural and forestry wastes, the County Council will encourage associated proposals for energy recovery.”

### 5.1.13 Other energy-related initiatives

Already within the county of Hertfordshire, a number of energy-related initiatives are underway that are contributing and have the potential to contribute further to reducing carbon emissions from energy consumption.

Organisation and Schemes	Description
<b>The Hertfordshire Environmental Forum</b>	<p>Hertfordshire Environmental Forum (HEF) is made up of the 10 Hertfordshire district and borough councils, formed in 1991 to deal with local and global environmental issues. The Energy Group of the HEF has been established with the aims:</p> <ul style="list-style-type: none"> <li>• to provide a forum which enables sharing of good practice on energy efficiency initiatives taking place both internally and externally within member authorities;</li> <li>• to facilitate joint working partnerships in relation to the Home Energy Conservation Act</li> <li>• to work with the local Energy Efficiency Advice Centre to ensure residents have access to good quality advice on energy issues</li> <li>• to improve energy efficiency in public buildings</li> <li>• to increase County wide promotional activity and Energy Awareness</li> <li>• to share resources</li> </ul> <p>The HEF and the HEF Energy Group play a significant role in promoting energy best practice.</p>
<b>“Warmer Homes, Greener Herts”</b>	<p>A consortium of Hertfordshire local authorities have set up the Warmer Homes Greener Herts insulation scheme, which provides loft and cavity wall insulation to residents at a greatly reduced cost. The scheme has just received additional funding from London Electricity and this is being passed on to the customer through lower prices for installations.</p>
<b>Hertfordshire Solar Club</b>	<p>The Solar Club is designed to provide help and advice on installing solar water heating to householders across Hertfordshire. The club provides training and support for DIY installations and can offer discounts through links with suppliers.</p> <p>The scheme has reportedly received approximately 850 enquiries, and, it is understood from David Thorogood (their Environmental Co-ordinator) that 78 solar systems have been installed. The majority of householders have elected to claim grants for their installations, and pay for a professional to install it. However as grant funding through the Clear Skies comes to an end it is likely that householders will have more incentive to adopt the DIY approach.</p>
<b>Discounted Condensing Boilers</b>	<p>The HEF Energy Group is currently investigating the feasibility of a scheme to provide discounted condensing boilers to households. These boilers are proven to have considerable energy efficiency and therefore cost saving benefits, once installed.</p> <p>Hertfordshire residents can receive a discount of at least £100 on a new condensing boiler through a joint scheme between the Councils and British Gas.</p>
<b>Schools Energy Challenge</b>	<p>The Schools Energy Challenge takes a whole school approach to energy and water management. It involves teaching and non-teaching staff as well as pupils. The Challenge is a partnership between Hertfordshire local authorities, Hertfordshire County Council, the School Improvement and Advisory Service and the participating schools.</p> <p>A comprehensive energy report is compiled for each school taking part in the Challenge, which identifies energy conservation improvements; a copy is given to the school. The schools are given assistance to apply for CREATE grants, these grants provide up to £3,000 per school to implement energy saving measures such as new lighting or heating controls.</p>
<b>Watford and Three Rivers Energy Agency</b>	<p>This organisation was previously known as the Watford Energy Shop. The Agency is able to provide information on various aspects of energy efficiency to homeowners, tenants, schools and businesses. They can deliver energy education, training, consultancy and a variety of environmental projects. The</p>

	<p>Agency was established as a not-for-profit company with the sole purpose of improving energy efficiency in Hertfordshire.</p> <p>Projects include: the International Energy Project, where Hertfordshire schools were linked up with schools in Germany and Slovakia in order to share information and raise awareness of energy efficiency; the Mobile Energy Efficiency Programme (MEEP) – a converted caravan which demonstrates how a home can save money by being more energy efficient.</p> <p>The 'Agency' mainly focus on providing energy efficiency advice, but also plan to promote renewable energy technologies by partnering groups such as Friends of the Earth and Hertfordshire Alternative Technology society on a road show across the county.</p> <p>One of the challenges the Agency faces is funding, staff are not employed specifically on the project but sourced from within the councils and heavily reliant on volunteers.</p>
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## Table 2 Hertfordshire County Energy-related Initiatives

### 5.1.14 The Hertfordshire Renewable Energy Study

The Hertfordshire Renewable Energy Study, out of which this report has been produced, commenced in the latter part of 2004. In November 2004 presentations and a workshop were held with prominent Hertfordshire stakeholders to commence the consideration of how renewable energy might be deployed in the County.

During the workshops, participants were invited to consider the barriers to renewable energy deployment and to identify opportunities for overcoming these barriers. The general themes emerging from the workshop are summarised below.

- **Understanding and Awareness.** Understanding of the needs, barriers and the opportunities is poor. Awareness must be increased across the public, members, officers and industry. Need useful performance indicators.
- **Incentives.** Lack of incentive to switch to renewable energy (low energy prices).
- **Leadership by the Councils.** The Councils should take a lead in promoting renewable energy, through policy, planning development control and implementation of schemes with its own property stock.
- **Co-ordination of Initiatives.** Increased co-ordination of effort to promote renewable energy is required across the county.

An interim report was issued to the stakeholders in January 2005 to provide a basis for formal consultation. The interim report provided information on the regulatory background, renewable energy technologies and an appraisal of the potential for their deployment in Hertfordshire.

Soon after the issue of the interim report a second meeting was held with stakeholders to introduce them to the findings of the report and to stimulate debate about the report conclusions and to encourage them to provide feedback on their concerns and interests.

The formal comments received from stakeholders were considered and addressed during March- May of 2005. The responses to the comments have been incorporated into this report; an updated version of the interim report of January 2005.

#### 5.1.15 Summary

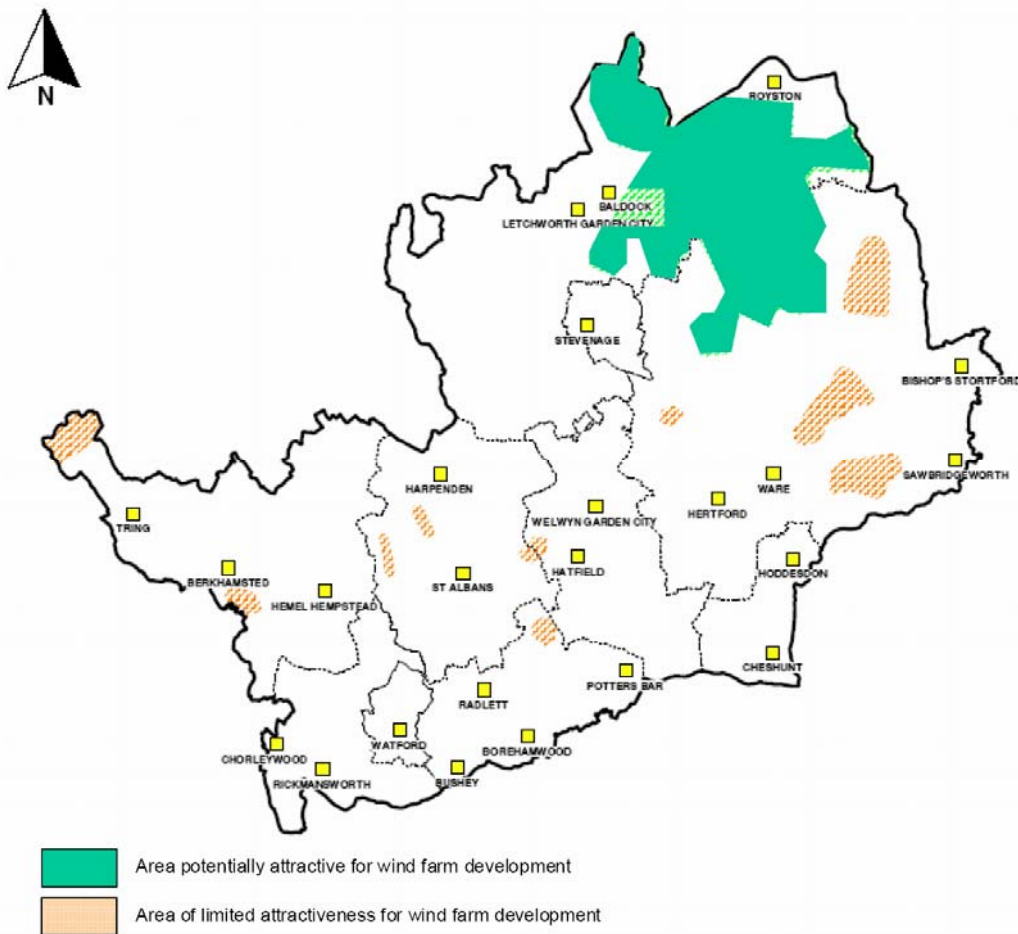
In summary, whilst there are no specific statutory requirements for Hertfordshire to set or achieve renewable energy targets, there is a statutory requirement for LDDs to conform with the East of England Plan. In doing so Hertfordshire and the districts within it need to consider how they can contribute towards the regional renewable energy targets. There is also strong scientific evidence, mounting regulatory pressures and a clear appetite and desire compelling the County to move towards a lower carbon future.

The principal options for reducing energy-related carbon include:

- moving from fossil fuel-based to low-carbon energy production such as that generated from renewables and nuclear power;
- reducing energy demand by improving energy utilisation and energy efficiency; and
- improving land use management.

This report addresses the options for Hertfordshire in relation to renewable energy production for electricity, for heat and for transport.

It is relevant that the report identifies the area of this proposal as one of the key wind power generation resources of the county. This is shown in Figure 6 below.



**Figure 3 Areas attractive for wind turbines in Hertfordshire.**

### 5.1.16 Conclusion

Current national planning policy guidance on renewable energy is set out in PPS22: Renewable Energy, published in August 2004. It calls for planning policies at regional and local levels to provide a positive framework, encouraging and promoting the use of the full range of available renewable energy resources. It requires regional renewable energy targets to be set in Regional Spatial Strategies (RSSs); expressed as the minimum amount of installed capacity for the region, and sub-region where appropriate. Local planning authorities will be expected to contribute to regional / sub-regional targets and policies and supporting text in local development documents should reflect this. Targets are to be reviewed on a regular basis and revised upwards as and when they are met. PPS22 emphasises that such targets must not be regarded as a ceiling for development, and will not be used as a reason for refusing planning permission for further renewable energy projects.

It is essential that all policies and their supporting text in RSSs and LDDs present an objective and robust approach to development. Both positive and negative effects of development should be recognised. Positive effects will be given significant weight in the decision making process - a key principle of PPS22 is that "the wider environmental and economic benefits of all proposals for renewable energy projects, whatever their scale, are material considerations that should be given significant weight in determining whether proposals should be granted planning permission" - in addition to certain adverse effects.

At the local level, PPS22 states that planning authorities should set out the criteria that will be applied in assessing applications for planning permission for renewable energy projects. Planning policies that rule out or place constraints on the development of all, or specific types of, renewable energy technologies should not be included in local development documents without sufficient reasoned justification.

It is evident from the Entec Study, just part of which is reproduced above, that North Herts DC have taken the case for renewable energy seriously. It is hoped that this proposal will assist in the delivery of these policies.

## **5.2 LC2 Green Belt**

North Hertfordshire DC has a Policy 12 - Landscape Conservation, Improvement and Creation part of which, LC2 creates a designation for the area of Weston Hill.

This is a Green Belt area. In general Green Belts are near to and sometimes surrounding a town, which is kept open by permanent and severe restriction on building" (The Green Belts, DoE, 1988). Government advice in circulars and Planning Policy Guidance: Green Belts (PPG2, January 1988), gives five purposes of Green Belts:

- to check the unrestricted sprawl of large built-up areas;
- to safeguard the surrounding countryside from further encroachment;
- to prevent neighbouring towns from merging into one another;
- to preserve the special character of historic towns; and
- to assist in urban regeneration.

In North Hertfordshire, the Council will protect the landscape by not normally granting planning permission for development proposals in such areas when they:

- (i) generally, which do not fit into the landscape because of their siting, design, materials, colour, or lack of new landscaping; and
- (ii) in Landscape Conservation Areas\* (LC1, LC2 and LC3 on the Proposals Map), which do not positively enhance the landscape taking into account the factors in (i) above.

The Council will expect proposals in rural areas to add to the character of North Hertfordshire's landscapes.

It is considered that this proposal does not reduce the function of the Green Belt area, and that the wind turbines will not detract from the natural landscape.

However, in addition to these considerations, the Council may have consideration of the appropriateness of the proposal with regards to the Green Belt status of the land.

A key point to consider is whether the development is appropriate or inappropriate.

PPG 2 on Green Belts suggests that inappropriate development would be harmful to the Green Belt. It is argued that wind turbines are not harmful to any of the purposes or functions of the Green Belt. In particular, whereby PPG 2 suggests that mineral extraction is not inappropriate because it is essentially temporary, so too is a wind turbine, indeed a wind turbine will have a life of about 25 years, significantly less than most extraction operations.

It is however, possible to decide that the three wind turbines are harmful to the visual amenity, an essential part of this particular Green Belt area. It is suggested that any temporary reduction in visual amenity is justified by the special circumstances created by the energy background that the country currently faces, all as argued above. In that the scheme contributes to the lowering of climate change emissions, it may be considered a good use of the green belt designation. The openness of the area is not compromised by the scheme.

The single electricity connection building is essential to the operation of the wind turbines. It is consistent with the scale of a small changing facility which would be permitted for recreational use. It is permitted as an essential building for use with the scheme which as noted above does not conflict with the purpose of the land being designated as Green Belt.

The area will remain as a non-residential zone and can continue allowing the natural evolution of flora and fauna which is shadowing the growth of population in the towns and villages.