



Wind Turbines in the Open Countryside (Draft for Consultation)

May 2010

South Northamptonshire Council

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1. Section One: Purpose and Background

Purpose

- 1.1 Renewable energy is an integral part of the Government's Energy Strategy. It is committed to produce 10% of the UK's electricity from renewable sources by 2010, and is aiming to produce 20% by 2020. Currently 6.7% of our electricity is from a renewable source. To achieve this target regional and local Government are taking action to support renewable energy schemes. As a result, wind turbines are increasingly becoming a popular method to produce low carbon energy regeneration in the UK.
- 1.2 These trends have led to considerable recent interest in proposing wind turbines in South Northamptonshire and nearby areas. With the UK government wanting to generate more sustainable resources of energy, this trend is likely to continue. It is critical that the wider renewable energy environmental benefits in terms that result from using of this technology are balanced with local issues such as its effect on the landscape and the economic, social and amenity impacts on local communities.
- 1.3 This guide sets out the approach that South Northamptonshire Council will take in supporting initiatives to promote renewable energy generally, and in dealing with specific proposals as planning authority. As wind energy development will have a major role in delivering national and regional renewable energy targets, and potentially be the technology most likely to affect the district, this guidance focuses exclusively on this technology.
- 1.4 This Guidance is directly relevant to the Council's corporate priorities, in particular:

*Priority 2 "To preserve what is special in South Northamptonshire" --
(Objective 1: to ensure the Local Development Framework respects our
local communities and the character of our villages and countryside)*

Background

- 1.5 The Government has developed a strategy for tackling climate change that takes a comprehensive approach to
 - minimising the demand for energy
 - increasing energy efficiency
 - developing renewable energy sources
 - developing cleaner energy sources
- 1.6 The spatial planning system can help minimise the demand for energy and increase energy efficiency through planning new homes, jobs and infrastructure. It also has a role to play in supporting new renewable energy production. This could be wind, biomass, photovoltaics, geothermal and hydroelectric, both at a commercial and micro scale.

- 1.7 Applications for wind turbines generating up to 50MW require planning permission, and are normally determined by the local planning authority. Larger applications require consent under the *Electricity Act 1989*, and are decided by the Secretary of State for Trade and Industry. Planning applications have to be determined in accordance with the development plan “unless material considerations indicate otherwise”. Government guidance can count as a material consideration.
- 1.8 Utility-scale wind turbines for land-based wind turbines come in various sizes, but they are large physical structures with potentially significant impact on the locality they affect. They can have rotor diameters ranging from about 50 metres to about 90 metres, with towers of roughly the same size. A 90-metre machine would have a total height from the tower base to the tip of the rotor of approximately 135 metres (442 feet). They are therefore considerably larger than other power-related features found in South Northamptonshire, and indeed than the scale of building found anywhere in the district.

2. Section Two: The National Perspective

2.1 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.

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.

Overall, the White Paper highlights the critical importance of security of energy supply, with the consequent need for substantial private sector investment in gas infrastructure, power stations and electricity networks. 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.

Further information outlining Government policy in respect of wind energy is in Appendix 1.

2.2 The Government acknowledges that planning system has an important role in supporting the deployment of renewable energy. Improvements to the system have been incorporated into the Planning Act 2008, which creates a new system of development consent for nationally significant infrastructure projects with the Infrastructure Planning Commission taking decisions on larger renewable projects including large wind farms in England and Wales (over 100 MW offshore or 50 MW onshore). The UK Renewable Energy Strategy (2009) also sets out reforms to the Town and Country Planning system which are designed to deliver a more effective, transparent and responsive system in England. This includes a package of measures designed to support more effective and proactive planning by local and regional authorities so that they are better able to capitalise on the renewable opportunities available to them. The Government accepts that there will always be locations where new infrastructure will not be appropriate and where there should be higher planning tests applied in for example Areas of Outstanding Natural Beauty.

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

2.3 PPS22 Renewable Energy was issued in September 2004 and its Companion Guide followed 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 planning policy framework.

2.4 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. This Guidance seeks to highlight the range of effects likely with regard to wind energy development, indicates the potential scale of wind development in relation to landscape character and sets out detailed guidance to assist in assessing landscape, visual and cumulative effects.

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

- Accommodated in locations where the technology is viable and environmental, economic and social impacts can be addressed satisfactorily.
- RSS and LDD’s should contain policies designed to promote and encourage, rather than restrict, the development of renewable energy resources.
- At the local level, planning authorities should set out the criteria that will be applied in assessing applications for renewable energy projects. 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. Government may intervene where constraints are too great or have been poorly justified.
- 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.
- Community involvement should be fostered, knowledge promoted and greater acceptance by the public of developments that are appropriately located. Developers should engage in active consultation before any application is submitted.
- Proposals should demonstrate any environmental, economic and social benefits as well as how any impacts have been minimized through location, scale, design and other measures.

2.6 A later paragraph deals with landscape effects:

The landscape and visual effects of particular renewable energy developments will vary on a case by case basis according to the type of development, its location and the landscape setting of the proposed development. Some of these effects may be minimised through appropriate siting, design and landscaping schemes, depending on the size and type of development proposed. Proposed developments should be assessed using objective descriptive material and analysis wherever possible even though the final decision on the visual and landscape effects will be, to some extent, one made by professional judgement. Policies in local development documents should address the minimisation of visual effects (e.g. on the siting, layout, landscaping, design and colour of schemes). (Para 19)

The companion guide to PPS22 suggests an objective approach to landscape evaluation:

Factors to consider in analysing the landscape and visual effect of individual applications include:

- *national designations (presence or absence; nature and justification of designation);*
- *landscape character areas (where already identified);*
- *landscape sensitivity*
- *landscape and visual analysis and,*
- *cumulative effects*

Planning Policy Statement supplement on climate change (PPS1), 2007

- 2.7 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).
- 2.8 PPS1 expects regional and local planners to use a robust evidence base to actively plan for, and support, renewable and low-carbon energy generation, including by allocating and safeguarding sites. In particular the guidance 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.
- 2.9 The PPS 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; and
- in considering planning applications before Regional Spatial Strategies (RSSs) and Development Plan Documents (DPDs) can be updated to reflect this PPS, planning authorities should have regard to this PPS as a material consideration which may supersede the policies in the development plan. Any refusal of planning permission on grounds of prematurity because a DPD is being prepared or is under review but has not yet been adopted should be consistent with Government policy.

2.10 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 PPS 22 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.

3. Section Three: The Regional Perspective

East Midlands Regional Plan – March 2009

- 3.1 The East Midlands Regional Plan was adopted in March 2009. Following the national policy context the Plan takes a positive approach towards the provision of renewable energy including wind farms. Paragraph 3.3.86 et al set out the Regional Priorities for Low Carbon Energy Generation as follows:

'much of the Region could be suitable for the location of wind turbines subject to a number of criteria, including visual impact and the cumulative effect of a number of turbines and their actual size. Local Planning Authorities should not adopt policies that would in effect impose a blanket ban on on-shore wind energy projects. Instead they should establish the criteria which guide and inform wind energy projects in order to achieve high quality, well planned developments. Policy 40 sets out the considerations that need to be addressed when drawing up local policies' (3.3.86)

The scale of the need to provide for more opportunities for renewable energy generation also indicates the pressing need for decentralised renewable energy, (micro-generation schemes) to be implemented as widely as possible. Local development documents should therefore encourage such schemes taking into account the advice in PPS22, the Companion Guide to PPS22 and the climate change supplement to PPS1. Design guides published by the TCPA may also be relevant – Sustainable energy by design (2006) and Community energy: urban planning for a low carbon future (2008 (3.3.87)

The technologies that are appropriate in each Sub-area will vary according to local resources and constraints. Micro-generation can be applied anywhere, either grid linked or with battery back-up. The opportunities for non-electricity generating renewables should not be underestimated. Ground source heat pumps and solar water heating as well as biomass space heating can contribute to a reduction in demand for electricity, coal, oil or gas that will deliver carbon savings across the Region. Other technologies may be more appropriate at specific locations. Sub-area based guidance is outlined below:

In respect of the Southern Sub-area the Plan considers that 'the Growth Area designations in the Southern Sub-area offer the best opportunities for new carbon neutral developments. There are also significant opportunities for biomass in what will remain a generally rural area. There are also some opportunities for wind development at a variety of scales' (3.3.88)

POLICY 40

Regional Priorities for Low Carbon Energy Generation

Local Authorities, energy generators and other relevant public bodies should promote:

- *the development of Combined Heat and Power (CHP) and district heating infrastructure necessary to achieve the regional target of 511 MWe by 2010 and 1120 MWe by 2020;*
and
- *the development of a distributed energy network using local low carbon and renewable resources.*

In order to help meet national targets low carbon energy proposals in locations where environmental, economic and social impacts can be addressed satisfactorily should be supported. As a result, Local Planning Authorities should:

- *safeguard sites for access to significant reserves of coal mine methane;*
- *identify suitable sites for CHP plants well related to existing or proposed development and encourage their provision in large scale schemes;*
- *consider safeguarding former power station and colliery sites for low carbon energy generation;*
- *support the development of distributed local energy generation networks;*
and
- *develop policies and proposals to achieve the indicative regional targets for renewable energy set out in Appendix 5.*

In establishing criteria for onshore wind energy, Local Planning Authorities should give particular consideration to:

- *landscape and visual impact, informed by local Landscape Character Assessments;*
- *the effect on the natural and cultural environment (including biodiversity, the integrity of designated nature conservation sites of international importance, and historic assets and their settings);*
- *the effect on the built environment (including noise intrusion);*
- *the number and size of turbines proposed;*
- *the cumulative impact of wind generation projects, including 'intervisibility';*
- *the contribution of wind generation projects to the regional renewables target; and*
- *the contribution of wind generation projects to national and international environmental objectives on climate change.*

In establishing criteria for new facilities required for other forms of renewable energy, Local Planning Authorities should give particular consideration to:

- *the proximity to the renewable energy resource;*
- *the relationship with the existing natural and built environment;*
- *the availability of existing surplus industrial land in close proximity to the transport network;*
and
- *the benefits of grid and non grid connected 'micro-generation'.*

East Midlands Regional Plan: Partial Review - Options Consultation 2009

- 3.2 In 2008 the East Midlands Regional Assembly launched a public consultation on proposals for a further Partial Review of the East Midlands Regional Plan, looking at key regional spatial planning issues through to 2031. One of the key issues that are proposed to be considered by the Partial Review is dealing with the causes and effects of climate change by generating more power from renewable sources. A summary of this is in Appendix 2.

4. Section 4: The Local Perspective

The Northamptonshire Climate Change Strategy

4.1 The Strategy has been produced in response to the Government's call for organisations and authorities across the country to take action to ensure that we are prepared to deal with the impact of Climate Change and to urgently take action to slow its progress. The Strategy sets out a framework for action by members of the Northamptonshire Partnership to: -

1. Raise awareness of the issue of Climate Change and its impact on the County
2. Reduce greenhouse gas emissions across the County
3. Plan for and adapt to the inevitable impacts of Climate Change on the County

4.2 In respect of wind farm development the Strategy Intends to:

- Produce an 'Energy Strategy' research paper that draws together key information needed to understand the planning, transport and local issues surrounding the development of small and large-scale renewables throughout Northamptonshire.
- Commission independent studies to provide an objective assessment of the realistic capacity of the County to generate renewable energy at the larger scale.
- Consider production of an environmental constraints map to show the locations in the county that are most feasible to accommodate renewable energy technologies especially wind farms

South Northamptonshire Climate Change Strategy

4.3 South Northamptonshire's Climate Change Strategy defines the contribution that will be made in our district to tackle climate change. The objectives and actions cover the business and activities of South Northamptonshire Council as well as setting out a number of measures that will enable the wider Community to reduce emissions and adapt to changes in our climate.

4.4 Responding to the threat of Climate Change meets with our Priority to "Preserve what is special about the District so that it can be enjoyed by future generations". Guided by the targets that have been adopted at both national and local level our actions aim to:

- Reduce greenhouse gas emissions from the Councils estates and services and from the wider community
- Save the Council, District and Households money
- Reduce vulnerability to the impacts of unavoidable climate change
- Meet rising standards for planning and new buildings

The Strategy aims to show strong leadership across South Northamptonshire, helping to preserve what is special, protecting the vulnerable, enhancing performance and encouraging potential. Working with our partners and across our communities we will seek to:

- Preserve: reduce harmful emissions and develop green spaces and wildlife habitats
- Protect: people and property from the damaging impacts of climate change
- Enhance: the efficiency of our buildings and services
- Encourage: the potential for a low carbon economy and lifestyle choices

4.5 The Strategy's Principal Objectives that may be influenced by wind farm development are summarised below:

1. Manage Land and Waste

Increase the resilience and reduce the vulnerability of ecosystems so that they can accommodate and respond to climate change by:

- Strengthening our planning database to show buildings and infrastructure that are at risk
- Creating and supporting green spaces and wildlife habitats that can adapt to climate change

Reduce emissions from waste by:

- further steps to increase recycling and minimise waste to landfill

2. Transform Energy Use

Promote sustainable energy technologies and construction and design techniques for new buildings and refurbishment by:

- Developing campaigns to help our employees, customers and citizens take action to reduce emissions
- Presenting cost effective energy efficiency options for homes and businesses
- Setting a clear roadmap to achieving zero carbon new homes by 2016
- Developing clear policy guidance for sustainable energy

3. Help our Communities

Work with partners and communities to encourage action to reduce emissions and prepare for the impacts of climate change by:

- Nurturing and supporting carbon friendly communities
- Raising awareness, educating and helping people adapt to climate change

- Providing advice and guidance on energy efficiency and renewable energy measures e.g. insulation, heating systems and generation
- Reducing fuel poverty

4.6 Much of the decision making about large scale energy generation will take place at national level and is outside of South Northamptonshire Council's control. However there is a myriad of small scale technologies designed for individual buildings including solar water heating, solar electricity, heat pumps and biomass. The Council can be proactive, using its influence to help determine the mix of technologies that will meet the future power needs of the district; assessing the options that are available alongside the priority to *"preserve what is special about the character of the District"*.

4.7 **South Northamptonshire will:**

- Conduct an assessment of the renewable energy potential of the District
- Prepare clear policy statements on renewable energy supported by:
 - design guides to address climate change and micro renewable generation including small scale technologies that are designed for individual buildings
 - an SPD, for large scale generation covering appropriate locations relative to landscape, proximity to settlements and grid access.

5 Section 5: Introduction to key factors to be addressed in submission for Wind Turbines

- 5.1 A wind turbine development of up to and including 50MW capacity will be determined by the council. Applications for a development over 50MW will be considered by the Infrastructure Planning Commission. A dominant factor in the site selection process for applicants is if there is a reasonable prospect of obtaining planning permission. The key material question is whether the proposal would have a detrimental effect on the locality generally, and on amenities that ought, in the public interest, to be protected.
- 5.2 The environmental benefits of wind energy are mainly linked to the contribution it has towards reducing the harmful impacts of climate change. National Policy states that such development should be promoted and encouraged, rather than restricted and it encourages renewable energy development across England where the technology is viable and environmental, economic and social impacts can be addressed satisfactorily.
- 5.3 Careful consideration needs to be given to any effects that may arise from renewable energy schemes. Wind energy schemes are no exception to this. Schemes need to be well designed, reflect local circumstances and demonstrate how any environmental, social and economic impacts have been minimised through careful site selection, design and other measures. These are also material planning considerations and as such, these issues will need to be addressed on a site by site basis to determine the most acceptable scheme for a site.
- 5.4 In South Northamptonshire renewable energy developments will be favourably considered if a number of requirements are met. These relate to the effect on landscape character, biodiversity and the natural and built heritage; the effect on local amenity, economy and highways, aircraft operations and telecommunications; and that the proposals take all practical steps to reduce any adverse impacts. It also requires for the environmental, economic, social and energy benefits to be given significant weight and for measures to show how a proposal will be dealt with once operation ceases.
- 5.5 Regional guidance for the East Midlands, policy 40, states regional priorities for low carbon energy regeneration. It states that in order to reach national targets, low carbon energy proposals should be supported, where proposals are in locations where environmental, economic and social impacts can be addressed satisfactory. The policy emphasises that there needs to be particular attention paid towards the effects of the wind turbines in the area and if the project will make a considerable contribution to the regional renewable target.
- 5.6 This Guidance applies to schemes of less than 50MW, which are normally determined by local planning authorities, where one or more turbines provide energy either directly to an individual or a group of buildings or for the sole purpose of producing electricity to support the national energy network. It

applies to new schemes and extensions to, and re-powering of, existing schemes.

- 5.7 When considering a wind turbine in an area, wind speed is important. A wind turbine usually needs wind speeds of around 10 miles an hour (16kmh) to start generating electricity and optimum wind speed for large turbines is approximately 30 miles per hour. It is also best to have a wind turbine high on a mast tower, because wind speed increases with height. The ideal location is a smooth-top hill with a flat, clear exposure, free from excessive turbulence and obstructions such as large trees, houses or other buildings. The turbines have a life expectancy of up to 20 years, after which there needs to be something in place for the removal of the turbines and restoring the land to its original setting.
- 5.8 Wind turbines are connected to the local electricity distribution network, which is achieved by overhead power lines connected to single or double poles or by lines lay underground (costing 6-20 times as much). The lines may have a visual impact on the area and underground is preferable in an area where there would be considerable visual impact. The cables from the wind turbines take the power to a transformer, which converts the electricity to a high voltage (normally between 33 KV and 132 KV) before connecting to the grid at a substation.
- 5.9 Issues that need to be considered are:
- Anemometers and contribution of the turbine to renewable energy objectives
 - Landscape Character
 - Biodiversity
 - Soils and hydrology
 - Cultural heritage
 - Local amenity
 - Telecommunications
 - Aircraft and radar
 - Local economy

These are considered in the following sections of this Report

6 Section 6: Anemometers

6.1 To enable proper assessment, proposals for individual wind turbines or groups of turbines will need to be supported by information on both on-site wind speed and direction data. This may involve the erection of an anemometer mast to provide continuous readings over a period not less than six months. The energy rating of the proposed turbines and projected energy output based on wind speed data should also be indicated.

6.2 Planning Policy Statement 22 'Renewable Energy' is supportive of renewable energy developments where environmental, economic and social impacts can be addressed satisfactorily. Although not generating renewable energy itself an anemometer mast is an integral part of achieving this goal. PPS22 is supplemented by a companion guide, which provides detailed guidance on various renewable energy schemes. The issue of temporary monitoring masts is addressed in Technical Annex - Wind, paragraph 32, which states:

"Assessing whether a particular site will harness wind power satisfactorily entails using historical meteorological data and information derived from anemometers placed on site. Anemometer masts are normally required for at least 12 months; the longer the measurements are taken the better the prediction will be. The measurements from the anemometers help to determine whether or not a candidate site is suitable and, if it is, the measurements help to determine the best position for the wind turbines within the site's boundary. The masts should be approximately as tall as the hub height of the planned turbine. However, often when the mast is erected it is not known either if the site is suitable for wind farming or which turbine type would be most suitable."

6.3 The erection of an anemometer mast will require temporary planning permission. This will be subject to an assessment of its impact that covers the issues contained in the remaining sections of this Report and other appropriate guidance.

6.4 It is important to note that the impact of a single anemometer is likely to be significantly different to that of a number of wind turbines. Whilst it is acknowledged that the data from the monitoring equipment on a mast would inform the technical suitability of the site for the operation of wind turbines, any decision to grant temporary planning permission would not prejudice any decision that the Council may subsequently make in respect of a future application for the erection of wind turbines. Should an application be received for a renewable energy scheme on the site, this would be considered at that time on its own individual merits having regard to adopted planning policy and other material considerations. Government guidance is very clear (PPS22, Annex 8, Para 39) that *"the argument that granting permission (for an application) might lead to another application is not sufficient grounds for refusal"*.

7 Section 7: Contribution of the turbine to renewable energy objectives

- 7.1 Wind turbines are mainly located on ridgelines to exploit the topography where the hill or ridge causes the wind to accelerate over it. The additional wind speeds gained in this way can make large differences to the amount of energy that is produced.
- 7.2 The Council will request that local wind monitoring with anemometers is carried out and that data collected from such equipment submitted to accompany the planning application and made publicly available. The Council cannot refuse a planning application if this information is not submitted. The only information which the Council can insist is submitted as part of a planning application is that which is pursuant and informative to the Environmental Impact Assessment. This follows guidance set out at para 32 of technical Annex 8 to 'Planning for Renewable Energy: A Companion Guide to PPS22'.
- 7.3 Whether or not there is sufficient wind speed to produce adequate amounts of energy from wind turbines to make them an economic proposition is not a land use issue and therefore is not a material planning consideration. The decision to apply for planning permission for wind turbines is a commercial decision to be taken by the operator and the economic viability of a scheme is not considered a sound ground for refusing planning permission by local planning authorities.
- 7.4 However, although the Council is strictly unable to assess the viability and efficiency of the scheme, it is considered vital that this technical information is provided in the interest of transparency and to help enable the local community to understand the predicted efficiency of the proposed development and to enable a proper assessment of the environmental benefits and any disbenefits to be undertaken. The Council will request data and seek to secure anemometer readings over a 12 month period prior to the application being determined.
- 7.5 The Council considers therefore that it will be important for proposed turbines to be justified in viability terms to ensure that potentially unviable schemes are not proposed that could have a detrimental effect on the character of the District without any benefit in renewable energy terms. Proposals must therefore be accompanied by a statement indicating how the development will achieve a net environmental gain.
- 7.6 The Council will therefore expect proposals to be accompanied by evidence for the choice of site and location and to submit its technical evidence gathering in respect of options investigated as part of the Environmental Statement. Examples of the factors applicants may wish to consider in appraising appropriate sites are set out at paragraph 37 of technical Annex 8 to 'Planning for Renewable Energy: A Companion Guide to PPS22'. In particular the proposal should demonstrate how it will:

- Contribute to reducing emissions of carbon dioxide and other polluting gases;
- Contribute to achieving national and regional targets for sustainable energy.

7.7 From April 1st 2010 households, landowners and communities who install generating technologies such as small wind turbines will be entitled to claim payments for the low carbon electricity they produce. These 'feed-in tariff (FITs)' are designed to help meet the Government's objective to bring about a significant increase in the amount of locally produced green energy, as a contribution to the wider shift of the energy mix to low carbon. Householders, landowners and communities who install low carbon electricity technology such as wind turbines up to 5 megawatts will be paid for the electricity they generate, even if they use it themselves. The level of payment depends on the technology and is linked to inflation. Further payments will be made for any electricity they feed into the grid.

8 Section 8: Landscape

The wider landscape

- 8.1 While all landscapes are the product of human intervention and are therefore historic to some degree, some have been far more dynamic over time or have altered more radically than others. These historically dynamic landscapes, particularly those where the prevailing character is industrial or agriculturally intensive, may be more suited to accommodating large-scale wind energy developments than less dynamic areas.
- 8.2 Although there are no parts of South Northamptonshire that fall within national landscape designations such as AONBs or National Parks, extensive work has been undertaken that considers the character of the landscape in the District. This provides a broad overview of the baseline environmental resources and provides assistance for those involved in growth decisions in their understanding of the relative sensitivity of the areas to proposals for growth.
- 8.3 In considering proposals for wind turbines the Council will have regard to the Making space for renewable energy: assessing on-shore wind energy development published by Natural England (2010). This document sets out a systematic and transparent way of assessing the key factors that influence the degree to which the natural environment can accommodate wind energy development and is concerned with how on-shore wind energy might be successfully accommodated within the natural environment at both a strategic level and for individual proposals.
- 8.4 The Report states that:
- 'Wind energy developments together with their ancillary infrastructure such as grid connections and access tracks, will have impacts upon the natural environment. These impacts may affect sites, habitats, species and/or whole landscapes and the way people perceive and use them. There may also be changes to landscape character. These impacts may be positive or adverse, temporary or permanent, direct or indirect. The significance of impacts will vary from place to place depending on the magnitude of potential impacts and the sensitivity of the receiving environment.'*
- 8.5 The Report further considers that here are three broad categories of natural environment factors that need to be considered in coming to a judgement on the degree to which the natural environment can accommodate wind energy development. These are:
- Ecological and geological factors
 - Statutory protected landscapes
 - Non-statutory wildlife and geo-diversity sites
 - Presence of protected and priority BAP species
 - Areas of deep peat
 - Landscape and visual factors

- Statutory protected sites
- Landscape character
- Historic environment and cultural heritage
- Factors relating to the enjoyment of the natural environment
- Enjoyment of the natural environment

8.6 Landscape Character Assessment can be used to inform judgements about the suitability of any landscape for renewable energy schemes. A local landscape sensitivity study will be required that considers both overall landscape sensitivity and landscape sensitivity to the proposed wind turbine development. Applicants will be required to have regard to Landscape Character Assessments covering West Northamptonshire and Towcester and Brackley and associated Green Infrastructure Studies.

8.7 In considering the landscape effects of wind energy developments, the Council will have regard to the immediate landscape impacts of the project to the impacts of related secondary developments such as power lines and transmission stations, and to the cumulative effects of existing or planned renewable energy developments and their infrastructure. The character of the landscape, including its historic character, should be taken into account in determining the location, scale and extent of renewable energy developments. An analysis of character may also be helpful in informing the detailed design of wind energy developments, including the number, scale and disposition of turbines.

Reversibility

8.8 One important feature of wind energy developments is their general reversibility (in terms of landscape if not archaeological impacts). The Council will therefore make provision for the long-term protection of the landscape by requiring legal agreements for the remediation and restoration of wind turbine sites and their infrastructure when they are decommissioned.

Landscape Impact Assessment: Requirements of Applicants

8.9 Key issues that the local landscape sensitivity study will need to consider are:

- **Landscape character** – does the proposal respect and fit with the key characteristics of the landscape character area within which it is sited?
- Relevant thresholds and criteria
- **Landscape capacity** – what is the capacity of the landscape character area/type to accommodate the scale of wind turbine development proposed?
- **Cumulative landscape impacts** – Has the landscape character area/type reached the limit of its capacity when existing or other planned turbine developments are taken into account? There is danger that excessive development of wind turbines in any landscape would at some point result in such material change as to unbalance and overpower the existing key characteristics of the landscape.

- **Mitigation** – to what extent does the proposal help reinforce the local landscape character and enhance the condition of the landscape? To what extent have the impacts of the proposals been reduced?

9 Section 9: Biodiversity

- 9.1 With the development of a wind turbine there needs to be consideration of the effects that it will have on the biodiversity of the area. There can be effects during construction from the foundations, access to the roads and moving turbines. It is necessary to consider the cumulative effects, as it could lead to negative impacts on habitats and species. However the project could be something positive to enhance and create habitats to support a range of species.
- 9.2 The main effects of wind turbines on nature are:
- Direct habitat loss (for feeding, roosting, breeding)
 - Habitat damage (site and off site due to hydrology impacts)
 - Interference with geological processes (slope profile)
 - Interference with hydrological processes (increased runoff and erosion)
 - Disturbance, displacement and collision with mobile species (migration, feeding and nesting)
- 9.3 As a result of these impacts it is important to conduct an assessment to identify the habitats and species on site and within the locality. Once the full range of biodiversity in the area is taken in to account it is necessary to ensure there are no adverse effects.
- 9.4 Applicants should have early consultation with Natural England to ensure they are following the latest and most up to date guidance and that appropriate survey work is undertaken. Planning Policy Statement 9: Biodiversity and Geological Conservation sets out the policies and procedures that an applicant will need to conform to.
- 9.4 There is little evidence that domesticated or wild animals will be affected by a wind turbine. Apart from the movement of the blades there should be no different approach in terms of ecological considerations than for any other development. However, some areas are important for a variety of bird species protected under EU and UK legislation (SPA's, SAC's, and SSSI's). These could represent potential constraints to wind turbine development. Other potential impacts are loss of habitat, hedgerow removal, deposition of soil or hazardous substances from construction and operation. Applicants will also be required to include an assessment on the impact of any proposals on bats. The Council considers that this should be undertaken in accordance with the Natural England Technical Information Notes TIN051 (Bats and onshore wind turbines) and TIN059. (Bats and single large wind turbines). This guidance aims to provide a consistent approach to dealing with applications for turbines and assists wind turbine developers, planners, statutory nature conservation agency staff and wind turbine operators consider the potential adverse impacts on bats when drawing up or assessing proposals for single wind turbine developments. Further information is available at: www.naturalengland.org.uk

9.5

Biodiversity Impact Assessment: Requirements of Applicants

9.6 Applicants will require to demonstrate:

Assessments are prepared that consider the following:

- Direct loss of habitat to the developments' infrastructure, including turbine foundations, crane pads, buildings, roads, quarries and borrow pits;
- Degradation of habitats through alteration or disturbance, in particular arising from changes to hydrology that may alter the surface or groundwater flows and levels, and drainage patterns critical in peatlands and river headwaters and increase the risk of bog burst;
- Fragmentation of habitats and increased edge effects;
- Changes to land management brought about by improved access; and
- Degradation and loss of habitats outside the development site, especially wetland habitats that may arise from pollution, siltation and erosion originating from within the development site.

These studies must consider the various stages of the planned development including:

- Pre-installation
- Construction
- Operation
- Decommissioning

and cover the following spatial areas:

- On site/off site buffer area/area of influence
- Cable route
- Other (e.g. construction site, spoil disposal sites)

Evidence must be provided that the proposed development will have no adverse effect on Biodiversity or that appropriate mitigation is in place to offset any impacts.

Applicants should have early consultation with Natural England to ensure they are following the latest and most up to date guidance

10 Section 10: Soils and Hydrology

10.1 Construction of a wind turbine could lead to effects on water courses and soils in the area. The effects on water courses could be;

- Increased run-off, erosion and sedimentation
- Stream flow impediments and pollution as a result of track construction
- Chemical handling/storage.

10.2 Erosion and sedimentation can occur from excavations, ground disturbance and poor design of drainage ditches. Sediment entering watercourses has the potential to affect flood storage capacity, water quality, and ecology. With this increase in sedimentation, this could have an indirect effect on local water resources. Construction of access tracks and movement of construction traffic can lead to compaction of the soil. This can reduce soil permeability, potentially leading to increased run-off and increased erosion. It is also necessary to consider the type of soil in the area, because some soil types are easily harmed and take a long time to regenerate. As a result of these potential effects it is necessary to consider the make up of the soils and hydrology of the area. These effects can also have a knock on effect of the biodiversity in the area.

Soil and Hydrology Impact Assessment: Requirements of Applicants

10.3 The developer must undertake an assessment of these issues and provide the necessary information confirming that there would not be any adverse effects on soils, hydrology and water quality

11 Section 11: Cultural Heritage

- 11.1 Development of a wind turbine has the potential to cause harm to the features of historic interest both above and below ground in the area. Key considerations are the impact of proposals on Scheduled Ancient Monument's, other archaeological features, Conservation Areas and Listed Buildings, historic parks and gardens and other cultural designations and whether the impact arising from proposed turbines either directly or on the setting of these features been avoided where possible.
- 11.2 It is necessary to consider the effects on:
- Historic structures and buildings
 - Historic Park and Gardens and designed landscapes
 - Historic character and associations within the wider landscape
 - Designated and undesignated sites and areas and their settings.
 - Archaeological remains
- 11.3 The following considerations reflect the advice set out by English Heritage in its guidance 'Wind Energy and the Historic Environment'. The Council will have critical regard to the need for any proposal to have always considered the impacts of the proposed development on the historic environment, including its implications for archaeological remains, historic structures and buildings, designed landscapes, the historic character and associations of the wider landscape.
- 11.4 This consideration should extend to designated and significant undesignated sites and areas, including the implications of development on their setting, and should embrace both the direct physical impact of developments and any indirect impacts. The Council will always require these impacts to be adequately considered as part of the process of preparing any Environmental Statement.

Direct physical impacts

- 11.5 Wind turbines require a deep foundation to prevent them from becoming unstable in high winds. The foundation of a 1MW to 2MW machine would typically comprise more than 100m³ of reinforced concrete in a block of up to 16m diameter and 3.5m depth. In addition, the direct physical impacts from wind turbine projects will include structures such as wind monitoring towers, sub-stations, transformers, control rooms, access roads, cable ducting, perimeter fencing and connection to the grid, together with temporary structures required during construction. Construction of these features has the potential to damage any underlying archaeological remains. However, in comparison with other more conventional forms of development, ground disturbance within the overall footprint of a wind turbine may be comparatively limited, and flexibility in the siting of individual structures provides opportunities to avoid damage to buried archaeology. For example, within a typical development of six turbines, covering a total area of 14 hectares, the actual

footprint of the turbines and their associated infrastructure may be limited to 1% to 2% of the overall development area.

Indirect impacts

- 11.6 Wind energy developments may impair the setting of historic sites and can compromise the visual amenity of the wider landscape, detracting from historic character, sense of place, tranquillity and remoteness. In certain conditions, indirect impacts can also include noise and shadow flicker from turbines. Turbines towers are now typically in excess of 60 metres in height and may have a zone of visual influence more than ten kilometres in radius. Because wind turbines work best in locations where conditions are frequently windy, their visibility is often increased by being situated on high ground or in exposed positions in order to maximise energy yields. Similarly, in order to distance development from population centres, many existing developments have been sited in upland locations: places which are valued for their wild and remote character and often for their exceptionally well preserved historic remains.

Dealing with historic sites

- 11.7 Historic sites are a finite resource which cannot be replaced once damaged or destroyed. In contrast with some nature conservation or landscape designations, which may embrace very extensive tracts of land, designated historic sites tend to be more limited in extent. For example, the average area of a scheduled monument is only 2.5 hectares and the average area of a registered park and garden is 108 hectares. Listed buildings and their curtilages generally occupy far smaller areas. It should not, therefore, be particularly onerous to avoid locating potentially damaging wind turbine developments within nationally important historic sites. Significant but undesignated historic sites, buildings and designed landscapes are also generally limited in extent and should similarly be avoided wherever practicable. To facilitate this, consultation with the Northamptonshire County Council's Historic Environment Record should be undertaken at the earliest stage in the design of wind energy developments. Where direct impacts cannot be avoided, project assessment and mitigation should be required in line with the guidance provided in Planning Policy Statement 5.
- 11.8 In their guidance on Wind Energy and the Historic Environment, English Heritage state that:

“Among particular factors that should be borne in mind when assessing the acceptability of developments within the setting of historic sites are:

Visual Dominance – wind turbines are far greater in vertical scale than most historic features. Where an historic feature (such as a hilltop monument or fortification, a church spire, or a plantation belonging to a designed landscape) is the most visually dominant feature in the surrounding landscape, adjacent construction of turbines may be inappropriate.

Scale - the extent of a windfarm and the number, density and disposition of its turbines will also contribute to its visual impact.

Intervisibility – certain archaeological or historic landscape features were intended to be seen from other historic sites. Construction of wind turbines should respect this intervisibility.

Vistas and sight-lines – designed landscapes invariably involve key vistas, prospects, panoramas and sight-lines, or the use of topography to add drama. Location of turbines in key views, which may often extend beyond any designated area, should be avoided.

Movement sound or light effects - the movement associated with wind turbines as well as their scale may be a significant issue in certain historic settings. Adequate distance should always be provided between important historic sites and wind turbine developments to avoid the site being overshadowed or affected by noise and shadow flicker effects.

Unaltered settings - setting of some historic sites may be little changed from the period when the site was first constructed, used or abandoned. Largely unaltered settings for certain types of sites, particularly more ancient sites, may be especially vulnerable to modern invasions such as wind turbines. This may be a particular issue in certain upland areas.”

- 11.9 Policies HE1.2 and HE1.3 of Planning Policy Statement 5: (Planning for the Historic Environment) state:

‘Where proposals that are promoted for their contribution to mitigating climate change have a potentially negative effect on heritage assets, local planning authorities should, prior to determination, and ideally during pre-application discussions, help the applicant to identify feasible solutions that deliver similar climate change mitigation but with less or no harm to the significance of the heritage asset and its setting’.

‘Where conflict between climate change objectives and the conservation of heritage assets is unavoidable, the public benefit of mitigating the effects of climate change should be weighed against any harm to the significance of heritage assets in accordance with the development management principles in this PPS and national planning policy on climate change’

Listed Buildings and Conservation Areas

- 11.10 The development of wind turbines will not be permitted within Conservation Areas or within the curtilage of listed buildings.
- 11.11 Wind turbines are more likely to impact on the setting of a Conservation Area or Listed Building. In all matters relating to the definition of setting, it is necessary to observe firstly that setting does not have a statutory definition as such for any cultural heritage features. It may in many cases be very confined, as for example a listed building within a street which can only be seen from

short distances as a result of its physical proximity to other buildings, but setting may also be concerned with views out from a feature or views towards it, or even cases where it is not actually possible to see the feature from the site of a particular development, but there are points to one side from which both may be visible.

11.12 PPS 5 defines 'Setting' as:

The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.

11.13 Paragraph HE7.1 of PPS 5 states:

In decision-making¹² local planning authorities should seek to identify and assess the particular significance of any element of the historic environment that may be affected by the relevant proposal (including by development affecting the setting of a heritage asset) taking account of:

(i) evidence provided with the application

(ii) any designation records

(iii) the historic environment record and similar sources of information

(iv) the heritage assets themselves

(v) the outcome of the usual consultations with interested parties; and

(vi) where appropriate and when the need to understand the significance of the heritage asset demands it, expert advice (from in-house experts, experts available through agreement with other authorities, or consultants, and complemented as appropriate by advice from heritage amenity societies).

11.14 The assessment of effects of the occupiers' visual amenity of listed buildings is not the same as the effects on the setting. These are two separate issues. This is because a private occupier of a dwelling that happens to be listed does not have any elevated visual sensitivity merely because the occupier happens to own a listed building. What is important is to address the setting of that building to see whether that setting is being adversely affected to an extent that warrants a finding of harm under the Act.

11.15 For a visual impact to be brought about on the setting of a listed building, the change in view should usually be afforded from a publicly available view of the building in its setting. Historic features are protected in the public interest and not in their own right. Based on these broad assumptions of the extent of settings, the following analysis assesses the potential impacts that might be brought about through the proposed Wind Turbine on the settings of listed buildings.

11.16 When considering the potential for a wind turbine to have indirect effects on the setting of a listed building, the context of the view needs to be taken into account. Just because a view may be afforded does not constitute an impact

on setting. There are a number of planning appeal decisions that reflect this principle.

- 11.17 An example of how this may be addressed in the case of a wind turbine can be found in the wind turbine planning appeal decision at Shipdham in Norfolk (APP/ ref F2605/A/05/1174295), where a Grade 1 Church tower was only about 1.5km away from the proposed wind turbines, but the Inspector noted that while the tower of the village church was a very distinctive feature, it did not have a significant presence outside the village, even though from part of the churchyard there were some views of the two turbines.
- 11.18 Conservation Areas are areas of special architectural interest, the character or appearance of which it is desirable to preserve or enhance and where the planning system provides protection for a combination of built forms that may date over a considerable period of time and be from different architectural styles. It was not the intention of the legislation that large areas of open land should be included within the designated areas as they are essentially combinations of buildings, hence the possible need to ensure that land which sometimes provides the essential setting of a conservation area is also considered when development proposals come forward which lie outside the designated area but intrude on its essential setting.
- 11.19 In some conservation areas, there may be important views out from the designated area which reinforce the relationship between town and country. In others, the built form and character of the conservation area can be best appreciated from outside the actual area designated. In such eventualities, the presence of a wind turbine clearly in view from within designated conservation areas or seen from outside as part of the setting, might be read as having an effect on its setting, and if that setting is not therefore being preserved, a decision has to be made as to whether, notwithstanding that finding, the development should be allowed to proceed on the basis that the need for it is overriding.
- 11.20 The “external” views aspect may involve key viewpoints towards the conservation area from the surrounding countryside in which the wind turbine lies between the viewer and the designated area, or lies beyond the conservation area in some views, or lies to one side or the other but has a very significant effect nevertheless on the perception of the view. However, it is always important to define the essential setting of the conservation area in the first instance – merely being visible from outside in certain views is not the sole determining issue.

Scheduled Ancient Monuments

- 11.21 Impact on Scheduled Monuments should be subject to early consultation with English Heritage who should provide guidance over the suitable setting of the features involved.
- 11.22 Field reconnaissance of the site may potentially lead to the discovery of previously unrecorded cultural heritage sites, which may in themselves

present constraints in terms of the siting of turbines. This information along with information on the recorded sites will be used to inform the layout design, avoidance measures will be adopted where possible, and mitigation measures developed where avoidance measures are not achievable.

Archaeology

11.23 Archaeological sites and monuments without statutory protection are curated by the planning authorities. Planning Policy Statement 5 and the Planning Act, 1990 provide planning policy guidance and advice on the treatment of this resource.

11.24 Construction of a wind turbine has the potential to directly disturb or damage known and unknown archaeological remains or features of cultural heritage. The presence of the wind turbine may also indirectly affect the setting or amenity of a particular site. Both these direct and indirect effects on any such features present on or in the vicinity of the site will be addressed during the application process.

Cultural Heritage Impact Assessment: Requirements of Applicants

11.25 Proposed developments will be required to demonstrate how they can be accommodated without harming the character and setting of the historic environment, including:

- Listed buildings, especially where their landscape settings would be affected
- Scheduled Ancient Monument. Impacts that need to be addressed are those which could potentially cause a direct impacts on the site itself and indirect effects on its setting
- Conservation areas, especially where the reason for their designation would be affected
- Historic Parks and Gardens, especially where the proposal would affect important vistas.
- Consideration of regional and local archaeological issues

11.26 Any development proposal will be required to consider the following list of factors in approaching an understanding of what characterises the particular setting of any historic environment asset; the relative significance of that setting to the preservation of its character and value; and whether the affect of the development on that setting is likely to be significant. In weighing up these issues the focus is on the historic environment asset itself.

- The relative weight which statute and policy attach to the asset in question;
- importance of topographic location for understanding the function of the site and the choice of its location;
- relevance of current or past land use;
- group setting and relationship to, and intervisibility with, other sites in the landscape;

- visual prominence of the site, but bearing in mind that sites need not necessarily be visually prominent to have a significant setting;
- visual dominance of the proposed development relative to the scale of the site and its current place in the landscape;
- scale and extent both of the site and of the development;
- views both to and from the site, including cases where the development and the site may not be intervisible but are both caught in important views – key vistas/prospects/ panoramas/sightlines
- presence, extent and scale of existing development within the surroundings of the site and how that currently affects/defines the site's setting;
- relatively unaltered settings or those little changed from the period when the site was constructed;
- distance between the site and the development;
- presence of intervening buildings/vegetation/topography between the site and the development;
- nature and scale of the landscape which comprises the setting of the site and its ability to absorb new development without eroding the key characteristics and value of the site;
- visual distraction through, for example, scale, physical relationship, movement or light effects.
- recreational/leisure value of the site within its surroundings either formally or informally;
- potential role as an educational resource, either formally or informally e.g. in explaining both the cultural history of an area and the evolution of its landscape;
- less tangible experiential qualities e.g. sense of remoteness/evocation of historic past/sense of place/cultural identity/ spiritual responses;
- contribution of the site within its setting to local diversity and distinctiveness;
- cumulative impact on setting of the development as a whole, not simply an assessment of its individual features; and
- cumulative impact measured with other similar developments in the wider area.
- Mitigation measures designed to prevent, reduce or offset significant adverse impacts and their likely effectiveness

11.27 The assessment will take account of all listed buildings, conservation areas and historic parks and gardens within 5km of the site boundary. Physical effects to such designated historic features are unlikely; however, effects to the 'setting' of such features are possible as a result of the wind turbines and may in some instances be significant. Accepted methodologies for the assessment of effects to historic features such as listed buildings will be employed. Protection to the setting of such features may well influence the development of the wind turbine.

12 Section 12: Visual Impact including Shadow Flicker and Reflected Light

12.1 Proposals will be considered against the following criteria:

- Proposals within 400m of settlement are highly unlikely to be considered acceptable in visual terms, unless existing features can be proven to fully screen views of the turbines, which otherwise would be dominant features and overpower sensitive receptors including residential locations.
- Proposals for wind turbines should ensure that shadow flicker does not affect any residential properties. Shadow flicker can affect properties within 130° either side of north and may occur within ten times the rotor diameter of a turbine, so turbines should be located to avoid these locations.
- Proposals within 2km of settlement will need to be carefully considered as turbines are highly likely to be prominent features and command/control views for sensitive viewers, including residential properties, within this range. Existing features including built form and vegetation may be able to locally reduce visual impacts of turbines within this range.
- Locations for a full range of representative viewpoints for the assessment of the visual impacts including the use of photomontages and wire frames should be agreed with the Council prior to the preparation of Environmental Statements and submission of turbine proposals. Photomontages should include a range of receptor locations including significant residential locations, open space, public roads, rights of way and promoted/published routes. The locations should ensure that the viewpoints represent the impacts from a range of differing distances from the proposed development, with good coverage within a 5km range.
- Residential properties and users of recreational routes/facilities are likely to be considered more sensitive as receptors. Road/rail users and industrial areas are likely to be considered less sensitive.

Visual Impact including Shadow Flicker and Reflected Light Impact Assessment: Requirements of Applicants

12.2 The following are key issues that the Council will consider in respect of the visual impact of a proposal:

- Will the proposal have an unacceptable impact on views?
- Is the proposal located too near to existing built up areas and settlement?
- Will the proposal impact on important views?
- Has the applicant provided sufficient visually verified photomontages and wire frame views from agreed key viewpoints around the development to assess the impact of the proposed scheme?

12.3 The assessment of visual impacts arising from wind turbine developments requires consideration of the following elements:

- The wind turbine generators. These structures represent the dominant and largest site features, achieving heights of 30-50m. It is these structures that determine the visibility and inter-visibility impacts of any wind turbine;
- Ancillary features. Wind energy developments require grid connection buildings and associated electricity sub-station plant together with often extensive overhead lines;
- On site roads. The construction of access roads onto and across undisturbed hilltops may result in visually conspicuous man made features and landscape scarring;
- Off-site highway works. The existing local highway infrastructure will often be sub-standard and inadequate to accommodate heavy traffic, particularly during the construction phase. Road widening and upgrading will usually be necessary.

13 Section 13: Local Amenity

- 13.1 Wind turbines produce noise mechanically from the internal gearbox and generator. There is also potential of noise being produced aerodynamically from the passage of the blades through the air. There have been improvements in technology that have helped to reduce this noise. It has been stated that the nature of the noise is linked to the low level, like the noise of wind in trees.
- 13.2 Paragraph 22 of PPS22 recognises that the renewable technologies may generate increases in noise levels. It recommends the use of a report by the Energy Technology Support Unit (ETSU) of the former Department of Trade and Industry – The Assessment and Rating of Noise from Wind Farms (ETSU-R-97) – published in 1996. The Companion Guide to PPS22: Planning for Renewable Energy provides further advice. Amongst other matters, it records that well-specified and well-designed wind turbines should be located so that increases in ambient noise levels around noise sensitive developments are kept to acceptable levels with relation to existing background noise⁶. It too refers to ETSU-R-97 as relevant guidance on good practice which should be used when assessing and rating noise from wind energy developments.
- 13.3 The purpose of ETSU-R-97 is recorded as being the description of a framework for the measurement of wind turbine noise with indicative noise levels thought to offer a reasonable degree of protection to wind turbine neighbours, without placing unreasonable restrictions on wind turbine development or adding unduly to the costs and administrative burdens on wind turbine developers or local authorities. It thus attempts to strike a balance between the environmental benefits of wind energy development on one hand (which are often expressed on a global scale), and the potential for environmental damage by noise pollution (which are assessed at a local scale). The guidance constitutes an exhaustive – even elaborate – examination of the issues relating to the assessment of wind turbine noise and its regulation, but it was recognised by the authors that it and its recommendations should be reviewed 2 years after publication. However, there has been no review and there are no current plans to revise ETSU-R-97.
- 13.4 Commercial wind turbines currently favoured are materially larger than those considered by the authors of the ETSU-R-97 report. ETSU-R-97 fails to pay adequate attention to the impact of wind shear resulting from atmospheric changes, and the manner in which wind turbine noise is propagated is not considered. Amongst many other matters, the report promotes a correlation between background noise levels at receptor locations with simultaneous measurements of the mean wind speed at 10m above ground level measured at the proposed site. The failure to pay sufficient regard to variations in wind shear could result in significant errors when comparisons are made between background noise levels and wind turbine noise emission levels.
- 13.5 It is necessary for schemes to be well specified and designed and to site them at a sufficient distance from noise sensitive development as this would ensure that increases in ambient noise levels are acceptable. Distances should be

such so as to ensure that any such noise impacts are minimised but developers should identify any noise sensitive development, such as residential properties or quiet leisure based businesses and carry out a noise assessment to determine whether or not the proposed wind turbines would cause any potential impact. In the event that the 600m-distance recommendation does not sufficiently reduce likely noise impacts, the developer would be required to carry out design alterations in order to mitigate against unacceptable noise levels.

13.6 Given that ETSU-R-97 is questionable in some respects, the Council will need to be satisfied that the living conditions of local residents would not be unreasonably affected and will where appropriate impose necessary and appropriately worded conditions that will ensure that if the applicant's predictions were correct there would be no need for the conditions to be enforced, but it is important that the council is able to take the necessary action if it became expedient to do so. In ETSU-R-97 it is suggested that the need to regulate noise emissions from wind turbines is too complicated to be the subject of conditions imposed on a planning permission. Notwithstanding the endorsement of ETSU-R-97 conferred by PPS22, the advice of ODPM Circular 05/05: Planning Obligations is that, where possible, conditions are preferable to obligations.

13.7 Conditions would essentially seek to:

- (a) establish rating levels for noise emissions at any noise-sensitive dwellings;
- (b) specify a procedure for considering complaints about turbine noise;
- (c) provide for the disclosure of information; and
- (d) devise a scheme for the measurement of emissions in a range of different wind speeds and directions with the purpose of demonstrating compliance with the rating levels.

In the event that noise emission levels are exceeded, the development will have failed to comply with (a) and the Council would then have the option of pursuing the matter by means of either a Breach of Condition Notice or an Enforcement Notice.

Local Amenity: Impact Assessment: Requirements of Applicants

13.8 The developer should carry out the noise assessment against any background noise, in accordance with PPS22 companion guide and ETSU-R-97 'The Assessment and Rating of Noise from Wind Farms' or any future revised guidance issued by the UK government on the assessment of noise.

14 Section 14: Telecommunications

- 14.1 Wind turbines can interfere with radio signals and can affect the local TV reception and telecommunication systems (police and emergency services). In concerns with TV any application will need to establish if disturbance to reception is likely and provide a mitigation measure to reduce impacts. Telephone and other communication rely on microwave radio links and these can be affected. As a result the Office of Communications will need to be contacted to establish what systems might be affected by the proposal. Also contact emergency services to determine potential impacts. When concerns do arise, often a repositioning of a turbine can solve these problems.

15 Section 15: Aircraft and Radar

- 15.1 Wind turbines have the potential to interfere with radars. The movement of the turbine could be considered as a moving object, mistaken for an aircraft or can reduce ability to track an aircraft. As a result of this developers will need to consult with radar operators as well as civil and appropriate military bodies.

16 Section 16: Local Economy

- 16.1 In the development of a wind turbine is necessary to consider the local economy and the positive and negative impacts it could have. Particular attention should be given to any role the area has for tourism and recreation, including the value of the value of the landscape character to residents and visitors. In addition consideration should be given to employing local labour and sourcing local materials.

17 Section 17: Guidelines for Siting and Good Design

- 17.1 It is important for any scheme to take into account the full range of issues associated with wind energy development when determining site selection and the best design for a proposal.
- 17.2 The process of site selection, design and mitigation should be an iterative process informed by and responding to an ongoing environmental assessment. The full range of planning issues set out in section 4 should be considered by a developer, alongside economic and technical requirements from the outset of a project and throughout each stage of its development. However, economic and technical issues associated with wind energy development, such as the wind resource in the area and the cost of developing a project, are not material planning considerations and would not be taken into account when making a decision.
- 17.3 This Section of the SPD provides more detailed guidance on siting and design with regard to landscape/townscape character and visual characteristics. It is considered important to focus on the landscape and visual impacts of wind energy developments in more detail due to their unique characteristics:
- prominently vertical,
 - significant movement
 - unfamiliarity in South Northamptonshire
- 17.4 Wind turbines are located in open areas where they are highly visible and it is normally unrealistic to seek to conceal them. Individually or in groups, they will create distinctive features in the landscape.

Site Selection and Initial Sizing

- 17.5 When appraising a potential site's suitability and to help determine the most appropriate size and number of turbines it could accommodate the following issues will be considered by a developer at the outset:
- Can the site fit sufficient wind turbines to optimise energy production?
 - Is the site windy enough?
 - Is there grid infrastructure near the site?
 - Will large delivery vehicles be able to gain access to the site?
 - Is there enough distance between a site and dwellings, rights of way, roads?
 - Are aircraft, radar and telecommunications issues likely to arise?
 - Are there archaeological designations/sensitivities associated with the site?
 - Are there ecological designations/sensitivities associated with the site?
 - Are there landscape designations/sensitivities associated with the site and what is the landscape capacity?
 - Are there any issues relating to safety and proximity to roads, railways, public rights of way and power lines

Road access

- 17.6 Road access to a site needs to be able to accommodate trailers carrying the longest loads (blades are up to 45m long) as well as the heaviest and widest loads (generally cranes of 30 tonnes plus). In some rural locations these requirements can lead to significant 'indirect' impacts through the need to widen lanes (typically to 6m) or ease bends, necessitating in some cases the removal of boundary features such as stone walls or hedges or loss of roadside verges. These alterations may be left in place for the life span of the development or conditions may seek temporary remediation as there will be a requirement to reach the site for decommissioning, and possibly for repairs in the case of major component failure. This aspect should be considered as part of the planning application process.
- 17.7 On-site access tracks need to be constructed carefully, but need to meet the same weight and dimensional requirements as above. They are typically 5-6m wide. It may be possible to reduce some in width after construction (typically to 3-4m) sufficient to facilitate light maintenance vehicles however full width will inevitably be required as described above. Effects are likely to be greater where they have to negotiate steep slopes requiring zig zag routes, cut and fill and drainage channels above the track; or on cross wet marshy ground where more extensive foundations are likely to be required. Access points to sites require large bell mouth entrances and appropriate visibility splays which will often involve the realignment of hedges or walls. Consideration of archaeology, ecology, hydrology and landscape and visual effects must also be taken into account as part of the design, during construction and the decommissioning phases of any development. Issues such as surface water run-off, negative impacts on sensitive soils and vegetation could be affected by a scheme. The effects of on-site access should be assessed throughout the lifetime of the development (construction, operation and decommissioning). Conditions are likely to be imposed to control the number of vehicle and timings of vehicle movements.

Bases

- 17.8 All wind turbines need to be mounted on reinforced concrete bases. As turbines become larger, these bases have increased in size and are now typically around 16-17m in diameter by 3.5m deep. Temporary features include a construction compound and hard standings next to each turbine which act as bases during turbine erection and component lay down areas (typically 50 x 50m). Although temporary they still have implications on sensitive soils and vegetation.

Transformers/Substations

- 17.9 Ancillary elements have the potential to compromise the design of a development and care is needed to minimise adverse effects on biodiversity and cultural heritage that might be associated with a site.

Electrical connection

17.10 Responsibility for the routing and design of the electrical connection from the site sub-station to the local electricity distribution network lies with the electricity Distribution Network Operator (DNO). This will be achieved by overhead power lines mounted on single or double poles or by lines laid underground. Since the latter are 6-20 times more expensive¹⁹ they may only be used for limited lengths or in special circumstances. The effects of connections should be regarded as material to the overall scheme design. Under grounding such power lines is preferable in landscape and visual impact terms, however, other environmental effects must also be considered when determining the best approach to take for a scheme. Infrastructure and ancillary developments should be carefully considered as part of the overall design of a scheme, using the following good practice principles:

- avoid sensitive soils and vegetation
- avoid changes with a negative impact on local hydrology
- provide construction and reinstatement method statements on sensitive sites
- integrate the layout with the grain of the topography/land patterns
- utilise existing tracks and access points
- minimise the length of tracks
- protect features such as trees or archaeological remains
- reinstate track verges with appropriate vegetation
- finish surface tracks to blend in with surroundings
- reduce extent and width of tracks after the construction phase
- remove tracks on decommissioning and reinstate appropriate vegetation
- locate and design ancillary elements in a way that minimises visual clutter
- Utilise existing landform and vegetative cover to screen ancillary structures
- Site and design the sub-station to appear as a simple element separated from the main development and characteristic of the receiving landscape
- enter into planning obligations to minimise the impact of consequential off-site electricity connections which could otherwise be severe

Mitigation, enhancement and compensation

17.11 Mitigation will primarily be achieved through careful siting and an iterative design process following the guidance above. However, in some cases it may not be possible to mitigate on site, and secondary mitigation measures may be employed to address residual impacts. These could include off-site planting to screen specific receptors or provide a compensatory habitat if a loss is likely as a result of a development. Experience has shown that wind energy developments present opportunities for enhancing both the development site and land outside the site, for example through restoration of hedgerows, stone walls and restoration and management of habitats such as heather moorland. When considering a planning application if appropriate mitigation, compensation or enhancement does not form part of the proposal, conditions may be attached or legal agreements required to secure them and enable a development to go ahead.

Safety and Proximity to Roads, Railways, Public Rights of Way and Power lines

17.12 The desirable distance between wind turbines and occupied buildings on the basis of expected noise levels and visual impact will often be greater than the necessary distance to meet safety requirements. Fall over distance plus 10% is considered safe.

17.13 Concern is often expressed over the effects of wind turbines on car drivers, who may be distracted by the turbines and the movement of the blades. Government policy as set out in PPS22 states that

'Drivers are faced with a number of varied and competing distractions during any normal journey, including advertising hoardings, which are deliberately designed to attract attention. At all times drivers are required to take reasonable care to ensure their own and others' safety. Wind turbines should therefore not be treated any differently from other distractions a driver must face and should not be considered particularly hazardous. There are now a large number of wind farms adjoining or close to road networks and there has been no history of accidents at any of them'.

Turbines should be set back from roads of at least fall 'over distance. The effect on drivers should not be considered any different to other distractions

17.14 Turbines should be separated from overhead power lines in line with electricity council standards.

17.15 PPS 22 quotes a non statutory requirement as advocated by the British Horse Society (BHS) is to have a 200m exclusion zone around bridle paths. The BHS considers these to be a minimum, where it is shown in a particular case that this would be acceptable. The negotiation process recommended in PPS 22 should indicate whether, in the particular circumstances of each site, these guidelines can be relaxed or need strengthening to minimise or eliminate the potential difficulties. The layout of turbine developments should also comply with PPS22 in relation to rights of way. Turbine blades should not oversail public rights of way and should preferably be their fall over distance away. Applicants should have early consultation with the Highways Agency, Northamptonshire County Council and Network Rail/the Network Property Board to ensure they are following the latest and most up to date guidance. Turbines should be set back from roads, railways and power lines at least fall over distance.

Decommissioning and Site Restoration

17.16 Megawatt-scale wind turbines are designed and certified by independent agencies for a minimum expected operational life of 20 years. As the wind turbines approach the end of their expected life, it is expected that technological advances will make available more efficient and cost-effective generators. As a result of the short life expectancy it is necessary to put in

decommissioning conditions when approving planning. A scheme should be submitted with the planning application and specify a time to be completed by. The decommissioning and restoration process comprises removal of above-ground structures; removal of below-ground structures, grading, to the extent necessary; restoration of topsoil and seeding.

- 17.17 Planning permission will require sites to be decommissioned following cessation of energy production. Restoration of a site should be considered as part of the decommissioning process. Details should be included within a planning application and should consider the pre development characteristics of the site and the landscape and nature conservation aims and objectives of the area.

Judging the acceptability of cumulative effects

- 17.18 This guidance does not seek to set thresholds that determine when cumulative effects are unacceptable. The local planning authority will need to make a judgement for each individual scheme following careful consideration of the information provided by a developer. When judging acceptability of a new proposal it is crucial to determine the “threshold” beyond which wind energy developments in a particular area become unacceptable. In other words, although the effect of a single scheme is limited, when added to the effect of other schemes in the area, operational, approved or proposed, it creates unacceptable cumulative impacts on for example, the landscape and visual impacts and effects on wildlife and ecology. This information should be included as part of the Environmental Impact Assessment, where relevant, or be set out in a planning statement.

Infrastructure and Ancillary Development

- 17.19 Infrastructure and ancillary development, including road access, foundations, transformers and substation buildings, fencing and electrical connections could effect a range of environmental issues. Sensitive vegetation and soil types such as heather, semi-natural grassland or peat may not readily recover from construction disturbance and could be vulnerable in both ecological and landscape terms. On sensitive soils such as peat ongoing consequences may arise from erosion or disruption to the integrity of natural drainage patterns.

Design of Turbines

- 17.20 Site location and the size, design, layout, spacing density and colour of turbines are all important considerations in terms of visual impact. The form and pattern of the landscape into which they are set is also very relevant.
- 7.10 By their nature, wind farms demand a prominent location. They cannot be hidden behind tree belts, and there are no hills or high ground to reduce visual impact against the skyline. However, using the natural grain of the land may in certain circumstances, be used to good effect while still ensuring that turbines receive good ‘wind runs’.

17.21 South Northamptonshire Council will require a statement indicating the reasons why certain elements of any scheme are considered appropriate to a site. These elements will include:

- Blade diameter and number of blades
- Height of the tower
- Need for lighting
- Layout and orientation of the turbines
- Turbine colour
- Wind monitoring mast design

17.22 Generally towers can be constructed from galvanised steel in either a lattice or tubular form. The lattice form merges into backgrounds such as trees or hills. The tubular form may be more complimentary to modern structures. The colour of turbines should reflect the setting of the turbines within the locality and be designed so as to appear the least intrusive when considered with the landscape character.

17.23 This statement should be prepared by competent bodies or individuals, with regard to the particular issue being addressed. The level of detail required will vary according to each scheme and again early consultation with the Council is necessary to ensure that all relevant information is supplied.

18. Section 18: Involving Local Communities

- 18.1 In accordance with Government policy, the Council strongly advises developers proposing anemometers or turbines to carry out public consultation with local communities including information about renewable energy, its potential benefits and any potential negative impacts before any schemes are submitted for planning permission in their area. Methods of community involvement will vary depending on the stage in the planning process. Good practice on consultation is set out in the Council's adopted Statement of Community Involvement.
- 18.2 Issues that may need to be addressed include a lack of awareness about the technologies; the weighting to be applied between long term global threat and immediate local impacts; difficulties in making the link between regional policy and local delivery.

Delivering community benefits from wind energy development

- 18.3 In July 2009 the Centre for Sustainable Energy published a toolkit "Delivering community benefits from wind energy development for the Renewables Advisory Board". This toolkit is designed to help wind energy developers, local authorities and local communities understand better:
- the range of ways in which 'host communities' can benefit from wind energy developments
 - the possible justifications for ensuring greater local benefits
 - the factors which may influence the nature and scale of benefits available to host communities
 - the options for managing the delivery of benefits locally
 - the role each of them can potentially play in securing local benefits.
- 18.4 The Toolkit is not designed to provide a case for the development of wind energy. Its purpose is to ensure that, if a development is permitted, the opportunities for positive local gain have been explored and, through good understanding and effective public consultation and engagement, optimised.
- 18.5 The benefits from a wind turbine development in the UK which can potentially arise within the local community include:
- The use of locally manufactured content
 - The use of local contractors during construction
 - Buying shares or other investment opportunity for local residents and businesses

- Potential involvement in the development process by local landowners, groups or individuals
- Land rental to the local landowner(s)
- Local community facility improvements
- Lump sum or regular payments into a fund for the benefit of local residents
- Employment of local people in the operation and maintenance of the wind turbine
- Improvements to local environment and wildlife habitats
- Visitor centres and tourist facilities
- Education visits and school support
- Sponsorship of local groups and teams

18.6 The focus for the Toolkit is therefore on those potential benefits which can be directly influenced and which are likely to be widely considered to be 'of benefit to the local community', rather than few specific individuals within it. These are:

- **Community Funds:** receiving a lump sum or regular payments into some sort of fund for the benefit of local residents
- **Benefits in Kind:** where the developer directly provides or pays for local community facility improvements, environmental improvements, visitor facilities, school and educational support etc.
- **Local Ownership** of shares in the project by local people, either through their own investment or through a profit-sharing or part-ownership scheme designed to tie community benefits directly to the project performance.
- **Local Contracting** and associated local employment during construction and operation

The Toolkit explores the issues associated with each of these. It is designed to answer questions like:

- Why should community benefits be considered?
- What are the costs, risks and rewards of wind energy and how do community benefits fit into this picture?

- What is the relationship between community benefits and the planning process?
- What are the different ways community benefits can be offered?
- Who should benefit and how should this be controlled and managed?
- What agreements can and should be put in place to secure these benefits?
- The Toolkit also examines options for local ownership within commercial developments and issues associated with securing the involvement of local contractors in the construction and operation of a wind energy project

Burton Wold

Burton Wold wind farm, located in Burton Latimer, near Kettering, Northamptonshire, commissioned in March 2006, consists of 10 turbines with a maximum output of 20MW. The site was developed by Your Energy Ltd, is owned by Mistral Windfarms and operated by Your Energy Services Ltd (companies all operating under the Mistral Group).

Consultation with the local community during the development phase revealed a desire by residents to receive cheap power from local sources; however this was not possible due to complications in regulations governing the supply and distribution of electricity.

In recognition of this idea and the need to conserve energy as well as look to generate it from sustainable sources, Your Energy designed a community fund to support energy efficiency and education projects in Burton Latimer. A sum of £40,000 was delivered upon construction of the wind farm, along with £10,000 for each year of operation to date (to continue every year over the life of the project).

This community fund is only in its 2nd year of a 25 year timeline, but progress is already positive.

- 18.7 As part of its consideration of proposals for wind energy developments the Council will require a S106 agreement that results in some form of community benefit as set out in this Section. This will be done in conjunction with both the applicant and local Ward Member and relevant parish councils.
- 18.8 The following is a checklist of questions that the Toolkit sets out for the relevant parties:

Developers

- Have you established a clear company policy on the provision of community benefits?
- How will you go about identifying suitable community organisations to negotiate with?

- What are the issues you are willing to negotiate with community representatives?
 - Level and type of financial benefit?
 - What the funds can be used for?
 - How the funds are controlled and managed?
 - How the geographic distribution of benefits will be handled?
 - What 'benefits in kind' might the community want?
- How will you ensure that the provision of community benefits is documented and secured for the community, irrespective of who owns the wind turbine in the future?

Community organisations

- Has the developer been clear about the level and terms of any community benefits on offer?
- In considering the benefits on offer, have you assessed the value of these in the context of the size of the project and the financial realities of wind turbine development and operation?
- Are there other community organisations in the vicinity who should also be involved in discussions about community benefits?
- Do you want to involve a third party, such as the local authority, to facilitate the negotiating process?
- Are there existing community trusts or organisations which could take on the role of managing the fund?
- Is there a local energy agency that could assist in developing local initiatives to save energy and increase the environmental and economic benefits?
- Have you secured legal documentation of the benefits on offer which ensures their provision is enforceable?

Local authorities

- Have you considered establishing a standard policy towards the provision of community benefits from wind turbines in your area?
- What consultation have you undertaken to be clear that communities 'hosting' wind turbine developments want your involvement in the negotiating process?
- Have you established procedures for enabling specific officers and councillors to participate in early discussions about community benefits without threatening the impartiality of the planning process?
- Can you identify any 'benefits in kind' which could be written into a Section 106 Obligation?
- If there are several wind turbines anticipated in your area, is there potential for a unified approach which pools contribution into a common fund (e.g. for a local energy agency to deliver sustainable energy initiatives to 'host' communities)?

19 Section 19: Information Required In the Submission Of Wind Turbine Planning Applications

1. Technical Information

- Full technical details of the turbines (including viability and construction details including the proposed foundations).
- Ancillary equipment/structures (if proposed).
- Decommissioning proposals.

2. Site Infrastructure

- Details of permanent and temporary access requirements, including earthworks, for construction, maintenance and eventual commissioning.
- Details of proposed landscaping.

3. Ecological Assessment

- Classification and evaluation of the natural habitat and species.
- Agricultural context.
- Hydrological impact.
- Determination of the zone of influence of the proposal.
- Carbon emissions from disturbance of any peat.
- Evaluations of impacts and the scope of mitigation of those impacts.

4. Landscape Assessment

- This should include the classification and evaluation of the landscape setting, including quality, value, and scale of the landscape.

5. Visual Assessment

- Viewpoint analysis covering both long and short range visibility and including a photomontage or videomontage.
- Determination of the zone of theoretical visibility of the proposed development.
- Evaluation of the visual impact and the scope for mitigation of those impacts.
- Details of the location, visual impact and the restoration of borrow pits.
- Evaluations of impacts should include consideration of alternative siting of individual turbines, colouring, borrow pits and ancillary equipment.

6. Noise Assessment

- To take into account the character and sensitivities of the area (including the prevailing winds and land form), and the individual and cumulative effects of the noise sources - both mechanical and aerodynamic.

7. Shadow Flicker Assessment

- An assessment of potential shadow flicker and shadow throw throughout the year for all dwellings within a 1000m radius of the proposed location of each wind turbine.

8. Built and Cultural Heritage Assessment

- A full assessment of any known or potential impacts on archaeological sites, listed buildings, conservation areas, historic gardens or designated landscapes.

9. Tourism and Countryside Access Assessment

- An assessment of any visual and amenity impacts on tourist and recreation facilities or tourism and countryside access, eg footpaths.

10. Public Safety

- A risk assessment of the proposed development taking into account the proximity of surrounding development and risk of injury to humans through equipment failure or ice throw.
- An assessment of any road safety including both capacity implications and possible effects of visual distraction.

11. Electro-Magnetic Interference (Aviation and Communication)

- Consultations must take place with the British Aviation Authority, Civil Aviation Authority, Ministry of defence, and the Office of Communication. Details of possible adverse effects and appropriate measures to alleviate effects should be submitted.

12. Cumulative Impact Assessment

- on the cumulative effects of the proposal may be required.

13. Wind Regime

- The developer must demonstrate that the proposal is viable.

14. Grid Network

- Details of the proposed grid connection or of supply to local user.

15. Community Consultation

- Results of consultation with details of the extent and methods used.

16. Other Issues

- Local employment / business considerations.
- Associated community benefits.
- The need for a forestry design and management plan.
- Decommissioning statement.

Appendix One: Extracts of national policy

The UK Renewable Energy Strategy (2009)

The UK Renewable Energy Strategy sets out the government's plans for ensuring the UK meets its legally-binding target to generate 15 per cent of its energy from renewable sources by 2020. By sector, the government estimates that this means 30 per cent of electricity, 12 per cent of heat and 10 per cent of transport energy will need to come from renewable sources.

The Strategy considers that there is a need to plan better for the delivery of renewable schemes. It considers that the system must be speeded up and be more predictable to give the business the confidence to invest. The Strategy considers that this needs to be balanced with the need to protect the environment and natural heritage and respond to the legitimate concerns of local communities. Large-scale renewable deployment will be resisted in places where it is inappropriate but in many more places where such deployment is both appropriate and desirable, the Government is determined to make faster progress based on the following actions:

- *Improve the planning process*, including through setting up an independent Infrastructure Planning Commission to take decisions on nationally significant projects in England and Wales, providing clear guidance for planners that recognises the national need for renewables, and streamlining the planning process.
- *Ensure a strategic approach to planning*, working with all the English regions to help ensure they have robust evidence-based strategies for delivering their renewable potential in line with the 2020 target.
- *Support swifter delivery*, helping the planning community as they develop and implement local and regional energy planning and handle renewable and low-carbon energy applications, for example through supporting skills development and by building capacity.
- *Address the impacts of renewables deployment* by doing more to resolve spatial conflicts and develop generic solutions to mitigate the impacts of renewable technologies, notably air quality, environmental, navigational and aviation radar impacts.

The Strategy recognises the importance of the planning system in delivering the infrastructure we need to reduce carbon emissions and ensure continued security of energy supply. It also recognises its vital role in safeguarding landscape and natural heritage and allowing communities and individuals the opportunity to shape where they live and work.

The Strategy sets out a series of measures aimed at achieving:

- a more consistent, transparent, timely and effective planning application process;
- a strategic and evidence-based approach to energy related economic and spatial planning at regional and local levels; and
- resolution of those generic factors that currently delay deployment.

Decisions on applications for major energy infrastructure in the UK, by which we mean onshore electricity generation above 50 MW and offshore over 100 MW, are currently taken centrally by the relevant competent authority under the Electricity Act 1989 or, in future for nationally-significant infrastructure projects in England and Wales, the Planning Act 2008.

In England, the vast majority of planning applications for onshore renewable energy are 50 MW or less in size and decisions are taken by local planning authorities. The basic framework in which they are taken is set out in the Town and Country Planning Act 1990 (TCPA), which is constructed in three broad tiers. At national level the policy direction is set through a series of planning policy statements and guidance notes. These national policies are then built into regional and ultimately local development documents, against which development applications are then judged.

The Government considers that at the local level the process for dealing with development applications will play a vital role in how the step change in renewable and low carbon energy will be delivered. The 2008 Killian Pretty Review highlighted a number of other ways to make the local planning process a more effective, transparent and responsive system. Specific reforms to this process now being taken forward by the Department for Communities and Local Government (CLG) are outlined below.

Reducing the number of small-scale developments that require full planning permission.

This applies in particular to the extension of permitted development rights (PDR) to business and public services. Some forms of distributed generation up to a certain size are already subject to PDR and the Government is currently assessing whether small-scale wind, air source heat pumps, and other renewable technologies could be included.

Encouraging the wider use of Planning Performance Agreements (PPAs).

PPAs enable Local Authorities to agree with the developer a timescale and plan for reviewing the application based on full engagement between developer, Local Authority and statutory consultees in pre-application discussions. The PPA process improves the quality of the decision-making process and provides certainty over the timescale for determining the outcome of development applications.

Establishing a Renewables and Low-Carbon Planning Performance Agreements demonstration project.

This will build on the work done on PPAs for other types of major applications. Where applicants put forward proposals for schemes involving renewable energy, The Government will encourage Local Authorities to use PPAs and draw down funding from this scheme to provide additional resource to administer the process.

Recovering planning appeals for decision by Secretary of State.

In June 2008 a specific recovery criteria was introduced which stated that the Secretary of State for Communities and Local Government would consider making decisions himself on planning appeals of major significance for the delivery of the Government's climate change programme and energy policies. The Secretary of State has already recovered several appeals and will not hesitate to continue to use these powers where this is justified.

Giving priority to appeals on renewable energy proposals

In 2008-09 the Planning Inspectorate received 48 appeals relating to renewable energy developments. 65% of these were allowed. The Planning Inspectorate will give high priority to the handling of all appeals relating to renewable energy proposals.

Revising the Cost Award procedure.

The Government has amended the appeal procedures. If a developer has submitted an appeal because the local planning authority did not determine an application in time, the authority will be expected to explain the reasons for not reaching a decision within the relevant time limit. Where an appeal against non-determination is allowed, the local planning authority risks having costs awarded against it if it is concluded that there were no substantive reasons to justify the delay and that greater communication with the applicant could have prevented the appeal being made.

Increasing flexibility for planning permissions

The Government is currently consulting on the introduction of a package of measures that will provide a proportionate and graded approach to making changes to existing planning permissions in cases where an entirely new application is not justified. The changes give developers scope to make minor alterations without going back to the start of the application process, therefore saving time and money for the developers and for the planning authority. This is particularly useful for renewable and low carbon developments where the technology may be new or evolving.

The Government considers that the reforms being made to the development application process will be critical to achieving the large scale deployment of renewable and low-carbon energy it needs to see in the UK, while balancing the need to safeguard our landscape and local interests. The ultimate objective is for all those with an interest in the landscape and natural resources to work together to find the optimal solutions for the particular circumstances of their area. This requires effective and proactive strategic planning by local and regional authorities.

The Local Democracy, Economic Development and Construction Act (2009) includes a new joint duty on regional development agencies and local authorities to produce a single regional strategy. This is to set out:

- policies in relation to sustainable economic growth in the region, and
- policies in relation to the development and use of land in the region.

The policies are to include policies designed to contribute to the mitigation of, and adaptation to, climate change and will need to contain ambitious regional targets for renewables, as well as some forms of low-carbon energy, and will be key to the delivery of national targets.

The aim is to ensure that regional targets are sufficient to deliver a step change in renewable energy deployment and reflect the best possible options for their area. The Government has indicated that they will support regions to review their targets for renewable energy and take a proactive, evidence-based approach to identify appropriate opportunities for renewables as well as any genuine constraints to deployment.

Appendix Two: East Midlands Regional Plan (Extract from Partial Review)

The amount of renewable energy has increased very significantly in the East Midlands since 2005 and currently the Region has around 170 MW of installed large scale renewable energy against a 2010 target of 325 MW. However, this is well below what will be required in the future to meet the Government's national targets. In particular the Government has committed to a 15 per cent overall increase in renewable energy generation by 2020, including heat and electricity generation and transport fuels.

The Review considers that regional scale development could deliver between 1500 GWh/yr and 3000 GWh/year, equating to an additional installed capacity of 450 MW to 900 MW. It considers that on-shore wind is still expected to be the biggest contribution to increasing capacity, equating to between 160 and 310 additional turbines by 2031.

The Review will not set sub-regional targets for each technology, as this has proved too inflexible in the past. Rather, it is intended to set out regional renewable and low carbon energy targets, along with a carbon reduction target for each Housing Market Area and guidance on the most appropriate mix of technologies. The Review sets out some analysis of the opportunities for the West Northamptonshire HMA that is summarised below:

The graph shows the potential carbon dioxide (CO₂) savings from new renewable energy development. It shows the "Low" and "High" uptake scenarios for 2021 and 2031 based on different types of renewable energy development. The Low scenario is based on business as usual and takes account of current and expected national policy drivers including the Code for Sustainable Homes. The High scenario is based on the promotion of additional measures at national, regional and local level to increase renewable energy development. Earlier action – by 2021 - is important as cumulative savings then increase over future years.

The measures shown are:

Heat Networks: the use of waste heat through Combined Heat and Power facilities to provide heating in homes and other buildings, which is most effective in denser development areas.

On Site Renewables: electricity and heat technologies situated mainly on or near specific buildings, including solar water heating, photovoltaics, small scale wind, biomass, ground source or air source heat and perhaps some small-scale on site hydro.

Regional Scale Renewables: including wind farms, large biomass generation plants, larger scale hydro and other large scale renewable technologies.

It indicates that Regional Scale Renewables generally offer the largest CO2 savings, particularly in the more rural parts of the region, although all elements are needed to ensure that the national targets for CO2 savings and the EU renewable energy targets are achievable.

