NORTH LINCOLNSHIRE COUNCIL

Town and Country Planning Act 1990

APPEAL BY GRANGE WIND FARM LTD

AGAINST THE REFUSAL BY NORTH LINCOLNSHIRE COUNCIL TO GRANT PLANNING PERMISSION TO SITE SEVEN WIND TURBINES AND ASSOCIATED HARDSTANDING, TRACKS, ANEMOMETRY MAST, SWITCHGEAR HOUSE AND UNDERGROUND CABLES

ON LAND ADJACENT TO FLIXBOROUGH GRANGE FARMHOUSE, FLIXBOROUGH

Local Planning Authority's Reference: WF/2010/1242
Planning Inspectorate's Reference: APP/Y2003/A/11/2156713/NWF

September 2011

INTRODUCTION

This appeal arises out of the decision by North Lincolnshire Council to refuse permission for the erection of seven wind turbines and associated buildings and works on land at Flixborough Grange Farmhouse, Flixborough Grange, North Lincolnshire.

This statement will cover the following issues:

1. The planning application

1.1 The application was for the erection of seven wind turbines and associated buildings and works at Flixborough Grange Farmhouse, near to Burton-upon-Stather, North Lincolnshire. The council refused the application on 6 April 2011 for the following reasons:

1.

The proposed development would introduce very substantial industrial structures into an area of significant natural beauty. The site is largely unspoilt and is open farmland on the eastern side of the area characterised as the Humberhead Levels, essentially flat and open arable land. The site is immediately adjacent to the 'Cliff' a natural geological feature of simple linearity which is especially pronounced at Burton upon Stather where the steep scarp slope, covered by ancient woodland, meets the simple form of the Trent floodplain. The Cliff is one of the highest and most prominent points in North Lincolnshire. In this area vertical structures of the size and scale proposed would be particularly harmful to the visual amenity of the landscape. The proposals are therefore contrary to policy LC7 (Landscape Protection) of the North Lincolnshire Local Plan.

2.

The proposed wind farm at Flixborough Grange would have an immediate effect on the health and wellbeing of two children who live at 15 Linton Rise, Burton upon Stather. The effect would be very serious for the children in particular, but would also have a detrimental impact upon their family and their principal carers. The construction and operation of the turbines would have very serious adverse consequences that would not be outweighed by the long-term environmental and economic benefits of the renewable energy scheme. The health and wellbeing of residents directly affected by the proposed development is an interest of acknowledged importance and in this regard the renewable energy scheme is contrary to and conflicts with policy DS21 of the North Lincolnshire Local Plan.

3.

The applicant has not demonstrated that the proposed wind farm would not lead to unacceptable noise disturbance to nearby residents, contrary to policies DS11 and DS21 of the North Lincolnshire Local Plan and to SPG13, and the Council considers there is potential for noise to impact upon the residential amenity of the residents of Burton upon Stather and other nearby settlements.

1.2 However, since the appeal was lodged, the third party whose children reason for refusal number two was seeking to protect has written to confirm they have reached agreement with the developer on mitigation and they no longer object.

1.3 Therefore, the Council will present no evidence regarding reason 2, and the matter will form no part of the Council's case

2. Planning policy

2.1 The development plan for this appeal comprises the Regional Spatial Strategy (2008), the Core Strategy (adopted June 2011), the saved policies of the North Lincolnshire Local Plan (2003) and the Draft Supplementary Policy Document agreed at Planning Committee 24 August 2011. The relevant development plan policies and national policies are listed and the relevant passages referred to. In summary these policies promote and encourage renewable and low carbon energy production whilst seeking to protect the countryside and to prevent unacceptable harm to the amenity of residents in the vicinity of proposed renewable energy sites.

2.2 Section 38(6) of The Planning and Compulsory Purchase Act 2004 states that 'if regard is to be had to the development plan for the purposes of any determination under the Planning Acts, the determination must be made in accordance with the plan unless material considerations indicate otherwise.' The development plan for this appeal consists of the Regional Spatial Strategy (2008), the adopted Core Strategy (2011), the saved policies of the North Lincolnshire Local Plan (2003), Supplementary Planning Guidance 13, Supplementary Planning Guidance 5a, Supplementary Planning Guidance 5b and the Draft Renewable Energy Supplementary Policy Document (2011).

The relevant national and development plan policies are:

2.3 **Draft National Planning Policy Framework**

This states that applications should be approved if the impacts are or can be made acceptable. Due to the substantial and demonstrable harm that this development would cause in terms of impact on the landscape, and the failure to demonstrate that there would not be a noise nuisance from the turbines, the proposals are contrary to this

policy. It should be noted that the policy is not at an advanced stage and little weight should be given to it at this time.

2.4 **PPS 1: Delivering Sustainable Development (2005) and Planning and Climate Change, Supplement to PPS 1 (2007)**

PPS 1 sets out the overarching planning policies on the delivery of sustainable development through the planning system. It explains that the Government is committed to protecting and enhancing the quality of the natural and historic environment, in both rural and urban areas. A high level of protection should be given to most valued townscapes and landscapes (paragraph 17):

'The Government is committed to protecting and enhancing the quality of the natural and historic environment, in both rural and urban areas. Planning policies should seek to protect and enhance quality, character and amenity value of the countryside and urban areas as a whole.'

At paragraph 18 it notes that: 'the condition of our surroundings has a direct impact on the quality of life and the conservation and improvement of the natural and built environment brings social and economic benefit for local communities.'

Paragraph 19 requires planning policies and decisions to be based on:

- up-to-date information on the environmental characteristics of the area;

- the potential impacts, positive as well as negative, on the environment of development proposals (whether direct, indirect, cumulative, long term or short term); and

- recognition of the limits of the environment to accept further development without irreversible damage.'

The section adds that planning authorities should seek to enhance the environment as part of development proposals and that significant adverse impacts on the environment should be avoided and alternative options which might reduce or eliminate those impacts pursued.

Paragraph 20 recognises the need to consider both the effects of climate change and the protection of the wider countryside. In particular:

- mitigation of the effects of, and adaptation to, climate change through the reduction of greenhouse gas emissions and the use of renewable energy; air quality and pollution; land contamination; the protection of groundwater from contamination; and noise and light pollution;

- the protection of the wider countryside and the impact of development on landscape quality; the conservation and enhancement of wildlife species and habitats and the promotion of biodiversity; the need to improve the built and natural environment in and around urban areas and rural settlements…'

The proposals are clearly contrary to this PPS as the demonstrable harm that this development would cause in terms of impact on the landscape, and the failure to demonstrate that there would not be a noise nuisance from the turbines mean that it is clear that the environment is not capable of absorbing this large-scale industrial development without unacceptable harm occurring and the proposals are contrary to this policy.

Further chapters in this appeal statement substantiate the council's case in detail on the issues of landscape and noise.

2.5 **The supplement to PPS 1 – Planning and Climate Change (2007)**

This sets out how planning should contribute to reducing emissions and stabilising climate change and take into account the unavoidable consequences. It advises that it does not seek to assemble all national planning policy relevant or applicable to climate change and should be read alongside the national PPS series. Where there is any difference in emphasis on climate change between the policies in this PPS and others in the national series, this is intentional and this PPS takes precedence.

In relation to renewable and low carbon energy generation the supplement (at paragraphs 19 and 20) states:

19. In developing their core strategy and supporting local development documents, planning authorities should provide a framework that promotes and encourages renewable and low-carbon energy generation. Policies should be designed to promote and not restrict renewable and low-carbon energy and supporting infrastructure.

20. In particular, planning authorities should:

- not require applicants for energy development to demonstrate either the overall need for renewable energy and its distribution nor question the energy justification for why a proposal for such development must be sited in a particular location;

- ensure any local approach to protecting landscape and townscape is consistent with PPS 22 and does not preclude the supply of any type of renewable energy other than in the most exceptional circumstances;

- alongside any criteria-based policy developed in line with PPS 22, consider identifying areas suitable for renewable and low-carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources, but in doing so take care to avoid stifling innovation including by rejecting proposals solely because they are outside areas identified for energy generation;

- expect a proportion of the energy supply of new development to be secured from decentralised and renewable or low-carbon energy sources.'

This document is more strategic in nature and not as relevant to the determination of site specific planning applications.

2.6 **PPS 7: Sustainable Development in Rural Areas (2004)**

The key principle PPS 7 expresses is:

(i) Decisions on development proposals should be based on sustainable development principles, ensuring an integrated approach to the consideration of:

- social inclusion, recognising the needs of everyone;

- effective protection and enhancement of the environment;

- prudent use of natural resources; and

- maintaining high and stable levels of economic growth and employment.'

The PPS requires regional spatial strategies (RSSs) to recognise the environmental, economic and social value of the countryside that is of national or, where appropriate, sub-regional significance. Policies in

RSSs and LDDs (local development documents) should seek to maintain and enhance these values, so enabling the countryside to remain an important natural resource, contribute to national and regional prosperity and be enjoyed by all (paragraph 14).

At paragraph 15 it states that:

‘Planning authorities should continue to ensure that the quality and character of the wider countryside is protected and, where possible, enhanced. They should have particular regard to any areas that have been given a statutory designation for their landscape, wildlife or historic qualities where greater priority should be given to restraint of potentially damaging development.’

Paragraph 16 goes on to state that:

‘When preparing Local Development Documents and determining planning applications for development in the countryside, planning authorities should:

(iv) provide for the sensitive exploitation of renewable energy sources in accordance with the policies set out in PPS 22; and

(v) conserve specific features and sites of landscape, wildlife and historic or architectural value, in accordance with statutory designations.’

At paragraph 24 the PPS explains that the Government recognises and accepts that there are areas of landscape outside nationally designated areas that are particularly highly valued locally. It advises that these should be capable of being protected by carefully drafted criteria-based policies utilising tools such as landscape character assessments. In compiling LDDs where local designations are retained, such designations should be based on a formal and robust assessment of the qualities of the landscape concerned.

The appeal proposals are clearly contrary to this PPS as the demonstrable harm that this development would cause, particularly in terms the impact on the landscape, would be completely contrary to the fundamental drivers of PPS7 which are to protect the countryside from unacceptably harmful development, it is clear that the environment at this site is not capable of absorbing this large-scale industrial development without unacceptable harm occurring and the proposals are contrary to this policy.

PPS7 makes it clear that landscapes which are not nationally designated can still be highly valued locally and this should be given considerable weight in the determination of this appeal.

A further chapter in this appeal statement substantiates the council's case in detail on the issue of landscape.

2.7 **PPS 4: Planning for Sustainable Economic Growth (2009)**

This PPS supersedes some of the provisions of PPS 7 which have now been cancelled. The relevant policy is EC6: Planning for Economic Development in Rural Areas which states at EC6.1 that:

'Local planning authorities should ensure that the countryside is protected for the sake of its intrinsic character and beauty, the diversity of its landscapes, heritage and wildlife, the wealth of its natural resources and to ensure it may be enjoyed by all.'

And at EC6.2:

'In rural areas, local planning authorities should:

a. strictly control economic development in open countryside away from existing settlements, or outside areas allocated from development in development plans'

Again, as for PPS7, the appeal proposals are clearly contrary to this PPS as the demonstrable harm that this development would cause, particularly in terms the impact on the landscape, would be completely contrary to the fundamental drivers of PPS7 which are to protect the countryside from unacceptably harmful development, it is clear that the environment at this site is not capable of absorbing this large-scale industrial development without unacceptable harm occurring and the proposals are contrary to this policy.

PPS7 makes it clear that landscapes which are not nationally designated can still be highly valued locally and this should be given considerable weight in the determination of this appeal.

A further chapter in this appeal statement substantiates the council's case in detail on the issue of landscape.

2.8 **PPS 24: Planning and Noise**

Paragraph 10 of PPG 24 indicates that the planning system should not place unjustifiable obstacles in the way of essential infrastructure development. It also refers to the need to prevent an unacceptable degree of disturbance. Paragraph 11 specifies that:

'Noise characteristics and levels can vary substantially according to their source and the type of activity involved. In the case of industrial development, for example, the character of the noise should be taken into account as well as its level. Sudden impulses, irregular noise or noise which contains a distinguishable continuous tone will require special consideration.'

The proposals are clearly contrary to this PPS as the appellant has failed to demonstrate that there would not be a noise nuisance from the turbines and therefore have failed to show that the development could be carried out without unacceptable harm occurring.

A further chapter in this appeal statement substantiates the Council's case in detail on the issue of noise.

2.9 **PPS 22: Renewable Energy (2004)**

The Government published a revised PPS on renewable energy in 2004, together with a companion guide which sets out practical advice on how policies for renewable energy can be implemented. These documents reinforce the overall regional role for renewable energy in helping to deliver national energy targets for energy generation and reductions in greenhouse gas emissions.

The PPS explains that it follows on from the Energy White Paper 'Our energy future – creating a low carbon economy' (2003) whose aim was to put the UK on the path to cut its carbon dioxide emissions by some 60% by 2050 with real progress by 2020.

The PPS sets out eight key principles to be followed by regional planning bodies and local planning authorities. In particular:

- Key principle (i) explains that renewable energy developments should be capable of being accommodated throughout England in locations where the technology is viable and environmental, economic, and social impacts can be addressed satisfactorily;

- Key principle (ii) explains that regional spatial strategies and local development documents should contain policies designed to promote and encourage, rather than restrict, the development of renewable energy resources. Regional planning bodies and local planning authorities should recognise the full range of renewable energy sources, their differing characteristics, locational requirements and the potential for exploiting them subject to appropriate environmental safeguards;

- Key principle (iii) explains that at the local level, planning authorities should set out the criteria that will be applied in assessing applications for planning permission for renewable energy projects;

- Key principle (iv) explains that the wider environmental and economic benefits of all proposals for renewable energy projects, whatever their scale, are material considerations and should be given significant weight in determining whether proposals should be granted planning permission; and

- Key principle (viii) requires development proposals to demonstrate any environmental, economic and social benefits as well as how any environmental and social impacts have been minimised through careful consideration of location, scale, design and other measures.

The PPS sets out the principles for regional targets, policies in regional spatial strategies and local development documents, locational

considerations and a range of other considerations relating to scale, landscape and visual effects, noise, odour and types of renewable energy, eg biomass and energy crops, and wind turbines.

Paragraph 3 states that:

‘Targets should be expressed as the minimum amount of installed capacity for renewable energy in the region, expressed in megawatts…Targets should be reviewed on a regular basis and revised upwards (if they are met) subject to the region’s renewable energy resource potential and the capacity of the environment in the region for further renewable energy developments.’

At paragraph 15 the PPS states that local landscape and local nature conservation designations should not be used in themselves to refuse planning permission for renewable energy developments. Planning applications for renewable energy developments in such areas should be assessed against criteria-based policies set out in local development documents, including any criteria that are specific to the type of area concerned.

In paragraphs 19 to 21 the PPS gives guidance on the landscape and visual effects of renewable energy developments. In particular it states that these effects will vary on a case by case basis according to the type of development, its location and the landscape setting of the proposed development (paragraph 19); that of all renewable technologies, wind turbines are likely to have the greatest visual and landscape effects, but that these impacts may be temporary if decommissioning conditions are attached (paragraph 20); and that planning authorities should take account of the cumulative impact of wind generation projects in particular areas.

At paragraph 22 the PPS specifies that:

‘Local planning authorities should ensure that renewable energy developments have been located and designed in such a way to minimise increases in ambient noise levels.’

2.10 **The Companion Guide to PPS 22**

At paragraph 5.10 the Companion Guide sets out what planning authorities must assess for each project and thereby come to an objective view:

- the extent to which the project is in conformity with the development plan, in particular criteria-based policies and any ‘broad area’ policies in RSSs

- the extent to which the reasons for any area-based designations may be compromised

- the extent of any positive or negative impacts, and the means by which they may be mitigated, if negative

- the contribution towards meeting the regional target, but recognising that a small contribution cannot, in itself, be a reason for refusal of permission.

With regard to PPS22 and its companion guide, the proposals are clearly contrary to these PPSs. The proposals have completely failed to mitigate against the environmental and social impacts that would result from this development as the demonstrable harm that this development would cause in terms of impact on the landscape, and the failure to demonstrate that there would not be a noise nuisance from the turbines mean that it is clear that serious and unacceptable harm would be caused to the environment and to the living conditions of residents of nearby settlements. The environment is not capable of absorbing this large-scale industrial development without substantial unacceptable

harm occurring and the proposals are contrary to this PPS. At paragraph 22 the PPS specifies that:

'Local planning authorities should ensure that renewable energy developments have been located and designed in such a way to minimise increases in ambient noise levels.'

The proposals specifically fail on this point as the appellant has failed to demonstrate that there would not be harmful levels of noise generated by the development.

Further chapters in this appeal statement substantiate in detail the council's case on the issues of landscape and noise.

2.11 **The Regional Spatial Strategy for Yorkshire and The Humber (2008)**

The RSS at Section 2 (Spatial vision and core approach), in Table 2.1 (Spatial vision and headline outcomes), at outcome 7 says, 'Environmental quality has been raised, resource demands from development minimised, and the region is responding proactively to the global and local effects of climate change' and countryside quality and installed renewable energy capacity are quoted as two of the headline indicators for this outcome.

Policy YH1 (Overall approach and key spatial priorities) states at B that plans, strategies investment decisions and programmes should aim to:

'6. Protect and enhance the region's environmental resources, including areas of international and national importance, and the character and qualities of the Region's coast and countryside including for economic and social development.'

The explanatory text accompanying the policy explains that a good quality environment is critical to the social, economic and environmental wellbeing of the region. It acknowledges that pressure

on environmental assets and resources are likely to increase with the demands for growth (paragraph 2.9).

Policy YH2 (Climate change and resource use) sets out seven areas where plans, strategies, investment decisions and programmes should help meet the RSS target in relation to the reduction in greenhouse gas emissions, the seventh of which is increasing renewable energy capacity.

Policy YH3 (Working together) states that 'plans, strategies, investment decisions and programmes should be based on:

A Effective collaboration between areas within the region, particularly to:

6. Achieve effective environmental management and enhancement and address climate change.'

In delivering the RSS's core approach, paragraph 2.76 explains that 'Change needs to be managed realistically and sensitively in the Region. The pace and degree of change must be handled in a way that is responsive to objectives such as urban regeneration, housing market renewal and rural renaissance and is reflective of local conditions, whilst ensuring the benefits of change and growth are delivered in a sustainable way as soon as possible.' Table 2.2 (Delivering the core approach over 15-20 years) sets out how this change might be achieved through different policy approaches during early, mid and later years. In the area of the environment, the increased generation of renewable energy, mostly from wind turbines, is seen as being important, as is the protection of important landscapes and habitats. Policy ENV5 (Energy) states that 'The region will maximise improvements to energy efficiency by increases in renewable energy capacity. Plans, strategies, investments, decisions and programmes should:

A reduce greenhouse gas emissions, improve energy efficiency and maximise the efficient use of power sources by:

(1) requiring the orientation and layout of development to maximise passive solar heating;

(2) ensuring that publicly funded housing and Yorkshire Forward supported developments meet high energy efficiency standards;

(3) maximising the use of combined heat and power, particularly for developments within energy demands over 2 megawatts, and incorporating renewable sources of energy where possible;

(4) ensuring that development takes advantage of community heating opportunities wherever they arise in the region, including at Immingham and near Selby;

(5) providing for new efficient energy generation and transmission infrastructure in keeping with local amenity and areas of demand;

(6) supporting the use of clean coal technologies and abatement measures;

B maximise renewable energy capacity by:

(1) delivering at least the following regional and sub-regional targets for installed grid connected renewable energy capacity:

	2010	2021
Humber	124 megawatts	350 megawatts
North Yorkshire	209 megawatts	428 megawatts
South Yorkshire	47 megawatts	160 megawatts
West Yorkshire	88 megawatts	295 megawatts
Offshore	240 megawatts	630 megawatts
Total	**708 megawatts**	**1862 megawatts**

(2) monitoring annually planning permissions and developments against the indicative local authority targets for 2010 and 2021 set out in Table 10.2 and taking action accordingly to ensure the regional and sub-regional targets are exceeded

(3) promoting and securing greater use of decentralised and renewable or low carbon energy in new development, including through development plan documents (DPDs) setting ambitious but viable proportions of the energy supply for new developments to be required to come from such sources. In advance of local targets being set in DPDs, new developments of more than 10 dwellings or 1,000 square metres of non-residential floor space should secure at least 10% of their energy from decentralised and renewable or low-carbon sources, unless, having regard to the type of development involved and its design, this is not feasible or viable.'

Table 10.2 sets indicative local targets for installed grid-connected renewable energy in 2010 and 2021. For North Lincolnshire this is 54 megawatts and 112 megawatts respectively.

Policy ENV10 (Landscape) states that the 'region will safeguard and enhance landscapes that contribute to the distinctive character of Yorkshire and the Humber. Plans, strategies, investment decisions and programmes should safeguard and enhance certain identified landscapes and related assets of regional, sub-regional and local importance.'

Policy E7 (Rural Economy) states that 'Plans, strategies, investment decisions and programmes should help diversify and strengthen the rural economy by facilitating the development of rural industries, businesses and enterprises in a way that:

5. Supports and protects an attractive and high quality rural environment.'

With regard to the RSS, the proposals are clearly contrary to the guidance.

The impact on the landscape would be completely contrary to the clearly stated aims of ENV10, which states that:

'the region will safeguard and enhance landscapes that contribute to the distinctive character of Yorkshire and the Humber. Plans, strategies, investment decisions and programmes should safeguard and enhance certain identified landscapes and related assets of regional, sub-regional and local importance.'

The proposed development would significantly, and unacceptably, harm the landscape in an area where the very distinctive landscape certainly contributes to the character of the Humber area.

A further chapter in this appeal statement substantiates the council's case in detail on the issue of landscape.

With regard to targets, whilst the council recognises the advice in PPS22 on targets, North Lincolnshire has virtually met its target for 2010 which is 54MW (currently 53.02MW) and has in place permissions which massively exceed the target for 2021. The target for 2021 is 112MW. There are already in place operational renewable energy schemes and consents for a total of 441.9MW.

This is so in excess of the target set for North Lincolnshire that it greatly magnifies the harm that would be caused and indicates that the only possible decision on this appeal is for it to be dismissed.

The current state of play with regard to renewable energy in North Lincolnshire is:

Table A

Site location	Type of renewable	MW produced (nominal installed capacity (variable))	Status	Progress on development?
Bagmoor WF/2005/0067	Wind	26 (8 turbines)	Operational	
Saxby Wold WF/2009/0657	Wind	36-45 (18 turbines)	Appeal – public inquiry	
Saxby Wold W/F/2011/0734	Wind	36-45 (18 turbines)	Under consideration	
WRG Winterton WF/2011/0528	Wind	10 (4 turbines)	Under consideration	
Flixborough WF/2008/0900	Wind	14 (7 turbines)	Appeal (dismissed)	
Flixborough WF/2010/1242	Wind	14 (7 turbines)	Appeal – written reps.	
Keadby WF/2003/1630	Wind	85 (34 turbines)	Consented	
Tweenbridge	Wind	7.5 (3 turbines)	Consented	
Flixborough	Biomass	13.5	Operational	
Drax PA/2009/1269	Biomass	290	Approved by Central Government (DECC)	
Brigg PA/2009/0334	Biomass	40	Awaiting Inspector's decision	
Singleton Birch	Waste/biomass	5.75	Approved	
EnergyfromWaste, Melton Ross	Waste/biomass	5.75	Approved	

Site location	Type of renewable	MW produced (nominal installed capacity (variable))	Status	Progress on development?
Roxby, Winterton Road	Landfill gas to energy	8.52	Operational	**This is in North Lincs and is a separate site to Winterton landfill**
Winterton landfill	Green/landfill gas	3 (originally)	Operational	
Killingholme landfill	Green/landfill gas	2 (originally)	Operational	
Yaddlethorpe	Sewage sludge	0.63	Consented	

Important: These figures are correct to the best of the knowledge of North Lincolnshire Council

2.12 **The North Lincolnshire Core Strategy Adopted June 2011**

The Core Strategy was adopted on the 28 June 2011. Further more detailed management policies will be set out in the emerging Development Control Development Plan Document (DPD) which will eventually form part of the Local Development Framework.

The most relevant policy in the Core Strategy is CS18.

CS18: Sustainable Resource Use And Climate Change

The council will actively promote development that utilises natural resources as efficiently and sustainably as possible. This will include:

1. Meeting high water efficiency standards, and incorporating new technologies to recycle and conserve water resources.

2. Requiring the use of Sustainable Urban Drainage Systems (SuDS) where practicable.

3. Supporting the necessary improvement of flood defences and surface water infrastructure required against the actions of climate change, and preventing development in high flood risk areas wherever practicable and possible.

4. Meeting required national reductions of predicted CO2 emissions by at least 34% in 2020 and 80% in 2050 by applying the following measures on development proposals. Requiring all industrial and commercial premises greater than 1000 square metres to provide 20% of their expected energy demand from on site renewable energy until the code for such buildings is applied nationally. Where developers consider these Codes and targets cannot be met on the basis of viability they will be required to provide proof through open book discussions with the council at the planning application stage.

5. Ensuring building design reduces energy consumption by appropriate methods such as high standards of insulation, avoiding development in areas subject to significant effects from shadow, wind and frost, using natural lighting and ventilation, capturing the sun’s heat, where appropriate.

6. Supporting development that minimises the consumption and extraction of minerals by making the greatest possible reuse or recycling of materials in new construction, and by making best use of existing buildings and infrastructure.

7. Supporting development that seeks to minimise waste and facilitates recycling and using waste for energy where appropriate.

8. Ensuring that development and land use in areas close to the Humber Estuary and rivers responds appropriately to the character of the area, in the interests of preserving and making best use of limited resources.

9. Supporting development that will help to reduce the need to travel for people using that development.

10. Ensuring development and land use helps to protect people and the environment from unsafe, unhealthy and polluted environments, by protecting and improving the quality of the air, land and water.

11. Supporting renewable sources of energy in appropriate locations, where possible, and ensuring that development maximises the use of combined heat and power, particularly at the South Humber Bank employment site and where energy demands for more than 2MW are required for development.

12. Supporting new technology and development for carbon capture and the best available clean and efficient energy technology, particularly in relation to the heavy industrial users in North Lincolnshire, to help reduce CO2 emissions.

13. Promote the use of a greenspace strategy and a green infrastructure plan, where applicable, which could help reduce the effects of climate change.

The proposals are clearly contrary to Core Strategy policy CS18 as this is not an appropriate location and would result in demonstrable harm in terms of impact on the landscape and the failure to demonstrate that there would not be a noise nuisance from the turbines mean that it is clear that the environment is not capable of absorbing this large-scale industrial development without unacceptable harm occurring and the proposals are contrary to this policy.

Further chapters in this appeal statement substantiate the council's case in detail on the issues of landscape and noise.

2.13 **North Lincolnshire Local Plan**

Policy DS21 (Renewable Energy) states that proposals for the generation of energy from renewable resources will be permitted provided that:

(i) any detrimental effect on features and interests of acknowledged importance, including local character and amenity, is outweighed by environmental benefits; and

(ii) proposals include details of associated developments including access roads and other ancillary buildings and their likely impact upon the environment.

Where appropriate, conditions will be imposed requiring the restoration of the site to its original condition or the implementation of an agreed scheme of after-use and restoration.

The proposals are clearly contrary to this policy as the demonstrable harm that this development would cause in terms of impact on the landscape and the failure to demonstrate that there would not be a noise nuisance from the turbines are not outweighed by the benefits which may accrue from the scheme.

Further chapters in this appeal statement substantiate the council's case in detail on the issues of landscape and noise.

2.14 **Policy DS1 (General Requirements)** is applied to all development proposals. It requires a high standard of design in all developments irrespective of location. Proposals for poorly designed development will be refused. All proposals must be considered against several criteria. In the case of this proposal the criteria are considered to be:

(i) The design and external appearance of the proposal should reflect or enhance the character, appearance and setting of the immediate area.

(ii) The design and layout should respect, and where possible retain and/or enhance, the existing landform of the site.

(iii) No unacceptable loss of amenity to neighbouring land uses should result in terms of noise, smell, fumes, dust or other nuisance, or through the effects of overlooking or overshadowing.

(vi) There should not be an adverse effect on features of acknowledged importance on or surrounding the site, including species of plants and animals of nature conservation value (particularly species protected by Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981), scheduled ancient monuments, archaeological remains, listed buildings and conservation areas, or trees and woodland covered by tree preservation orders.

Policy DS11 (Polluting Activities) states that planning permission for development will only be permitted where it can be demonstrated that the levels of potentially polluting noise do not create adverse environmental conditions likely to affect nearby developments and adjacent areas.

Policy RD2 sets out the council's overall development control policy for development within the open countryside. It aims to balance the needs and benefits of economic activity with maintaining and/or enhancing the quality of the countryside. It specifies that development in the open countryside will be strictly controlled and sets out six provisos:

(a) the open countryside is the only appropriate location and development cannot reasonably be accommodated within defined development boundaries

(b) the proposed development accords with the specific requirements set out in the relevant policies of this chapter and elsewhere in this local plan

(c) the development would not be detrimental to the character or appearance of the open countryside or a nearby settlement in terms of siting, scale, massing, design and use of materials

(d) the development would not be detrimental to residential amenity or highway safety

(e) account is taken of whether the site is capable of being served by public transport

(f) the development is sited to make the best use of existing and new landscaping.

Assessed against the requirements of the above policies – DS21, DS1, DS11 and RD2 – the proposals are clearly contrary to these policies as the demonstrable harm that this development would cause in terms of impact on the landscape and the failure to demonstrate that there would not be a noise nuisance from the turbines mean that it is clear that the environment is not capable of absorbing this large-scale industrial development without unacceptable harm occurring and the proposals are contrary to this policy.

Further chapters in this appeal statement substantiate the council's case in detail on the issues of landscape and noise.

2.15 **Policy LC7 (Landscape Protection)** states that where development is permitted within rural settlements or within the open countryside,

special attention will be given to the protection of the scenic quality and distinctive local character of the landscape.

Development which does not respect the character of the local landscape will not be permitted.

SPG 5a North Lincolnshire Countryside Design Summary and SPG 5b North Lincolnshire Landscape Character Assessment and Guidelines

Policies LC7 and SPG 13 are underpinned by the findings of a landscape assessment conducted by landscape architect consultants (Estell Warren) on behalf of the council. This assessment has been adopted by the council as SPG 5b.

The appeal proposals are clearly contrary to policy LC7 and to the SPGs which underpin the policy as the demonstrable harm that this development would cause, particularly in terms the impact on the landscape, would be completely contrary to the requirements of the policy which are to protect the scenic quality and distinctive local character of the countryside and clearly states that proposals which do not do so will not be permitted.

A further chapter in this appeal statement substantiates the council's case in detail on the issue of landscape.

2.16 **Supplementary Planning Guidance (SPG) 13: Wind Energy Development (March 2005)**

As well as outlining national and regional policies and guidance, the SPG sets out local policies against which North Lincolnshire Council will assess proposals for electricity production by wind power in North Lincolnshire. It does so in WIND1 by referring to targets and locational and environmental criteria that were set out in Regional Policy Guidance (RPG) 12. It then refers to the particular local plan policy relating to renewable energy (DS21) and then sets out in more detail in

WIND2 to WIND9 those issues it will have regard to (based on the RPG and PPS 22 criteria).

These are set out below:

WIND1 sets out the then RPG 12 targets for energy to be generated from renewable resources for the Humber sub-region of at least 146 megawatts for 2010. North Lincolnshire's target to meet its contribution from wind energy development was 40 megawatts for 2010 and a further 100 megawatts for 2021. These have been superseded by the RSS figures set out in Table 10.2. It then states that:

> 'Proposals for wind energy development to meet these targets must:
>
> (i) minimise the visual and physical impacts of wind energy developments on the surrounding area;
>
> (ii) minimise the cumulative impact on the area of other existing, and permitted wind developments as well as those which are the subject of submitted planning applications;
>
> (iii) minimise the impact of the proposed development on the landscape;
>
> (iv) minimise the ecological impact of any development.'

The policy states that the 'Council will review its 2010 target when met whilst having regard to progress elsewhere in Yorkshire and the Humber.'

WIND2 relates to the planning implications of a proposal and states that:

‘The key issues that North Lincolnshire Council will assess in relation to planning applications for wind energy developments are:

- visual effects
- cumulative impact
- noise
- amenity impacts
- landscape impact
- nature conservation and ecology interests
- archaeology and the built environment’

The explanatory text provides more detail about each issue and provides a clarifying policy in relation to each one as follows:

WIND3: ‘North Lincolnshire Council will consider the following matters when assessing the visual impact of wind energy proposals:

- distance from which it can be seen
- landscape characteristics
- siting and layout
- design of the turbine
- impact of ancillary elements
- potential after-use of wind farm site.’

WIND4: ‘North Lincolnshire Council will consider the following matters when assessing the cumulative impact of wind energy proposals:

- the proximity of existing, and permitted wind energy developments
- the impact on the surrounding zone of visibility
- the impact of development ancillary to the development
- the nature, character and landscape of the location in which the proposal is sited
- the impact on nature conservation and ecology interests
- the impact of noise’

WIND5: ‘In assessing the implications of noise from wind energy development, developers and the council should have regard to:

- proximity of settlements and buildings
- the framework for assessing noise set out in the ETSU report
- the topography and local environmental conditions surrounding the proposed development’

WIND6: ‘In siting wind energy developments, developers should consider the following:

- minimising disturbance to residential amenity by means of noise, shadow flicker, visual and cumulative impacts
- how the proposed development will be accessed for construction, servicing and maintenance purposes and how any disturbance can be mitigated

- the impact on informal recreation sites and public rights of way, and

- liaising closely with local communities regarding the impact of the development'

WIND7: 'In assessing the landscape impacts of wind energy development, the council will consider the following matters:

- ability of the landscape to accommodate the development

- impact on areas of landscape protection and enhancement, and nature conservation importance.

Developers should also provide an assessment of their proposals against the council's approved Supplementary Planning Guidance on Landscape Character Assessment and Guidelines, and Countryside Design Summary.

Proposals for wind energy development must also comply with relevant landscape and conservation policies in the North Lincolnshire Local Plan.'

WIND8: 'In assessing the implications for ecology and nature conservation for wind energy development North Lincolnshire Council will assess the following issues:

- effect on designated sites for nature conservation

- effect on protected species of plants and animals

- effect on cited bird species from designated sites feeding or roosting in areas adjacent or inland

- effect on migratory routes for birds, especially large, less manoeuvrable birds such as swans and geese

- assessment of cumulative effects in relation to other wind farms and other developments

- effects on nesting birds, especially during construction

- adequacy of mitigation measures'

WIND9: 'Developers should consider the impact of their proposals for wind energy development, both during and after construction, on archaeology and cultural heritage, and the historic landscape, including designated conservation areas, scheduled ancient monuments and listed buildings, and other non-designated sites and remains.

Developers will need to demonstrate that the objectives of the designation of the area will not be compromised by the development, and that any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits.'

The proposals are clearly contrary to this SPG due to the demonstrable harm that this development would cause in terms of impact on the landscape and the failure to demonstrate that there would not be a noise nuisance from the turbines. These reasons for refusal are substantiated in detail in further chapters in this appeal statement.

2.17 **Draft Renewable Energy Supplementary Policy Document (2011).**

The SPD is considered to be a material factor in the determination of this appeal and its anticipated timescales for adoption are set out here:

Indicative dates for Renewable Energy SPD Consultation and Adoption

Stage	**Date**
Planning Committee (approval for pre-consultation)	24 August 2011
Pre-consultation begins	25 August 2011
Pre-consultation ends	14 September 2011
Public consultation begins (regulation 18)	28 September 2011
Public consultation ends (regulation 18)	26 October 2011
Adoption at Full Council	22 November 2011

All dates are indicative subject to approval by Planning Committee/Full Council, consultation with Leader of the Council, and the level of consultation received at each stage.

The SPD, where it specifically relates to wind energy, is set out here:

1.1 On-Shore Wind

On-shore wind energy development has been the mainstay of proposals for renewable energy development in North Lincolnshire. This is due to the area being identified as having significant potential for wind development in the 2004 study “Planning for Renewable Energy Targets in Yorkshire & Humber”. This study provided the basis for the regional targets set out in the Regional Spatial Strategy (RSS). The RSS targets for North Lincolnshire were limited to ensure the area did not have to bear too disproportionate a burden for on-shore wind energy compared to other local authorities in the region. The study also highlighted that other renewable technologies, for example biomass,

will provide significant opportunity for North Lincolnshire to supplement its power supply.

Over recent years, seven proposals for on-shore wind energy development have been put forward in North Lincolnshire. These have been considered by either the council or the Government. Three have received planning permission at Bagmoor, Keadby and Tween Bridge which between them will generate 110MW of electricity, whilst two applications at Flixborough and Saxby are being considered through the appeal process and have the potential to generate a further 59MW of electricity. A further application is under consideration for four turbines generating 10MW of electricity at Winterton.

An application was refused by the council at Elsham Wold for 15 turbines generating 30MW of electricity due to its impact on the operation of Humberside Airport and was finally dismissed on appeal in 2006.

There are also a number of proposals or consented wind energy developments in neighbouring local authority areas – at Tween Bridge (Doncaster), Goole Fields, Twin Rivers and Sixpenny Wood (East Riding of Yorkshire) and Stallingborough (North East Lincolnshire).

2. Renewable Energy Technologies

2.1. Wind Energy

Wind energy development is the most prevalent form of renewable energy generation technology in the United Kingdom. Recent years have seen large numbers of on-shore wind turbines being constructed across the country, with more beginning to be developed off-shore. In the coming years, a number of large-scale off-shore wind farms will be constructed around the country's coastline.

Wind turbines use the movement of the wind to generate mechanical power for the generation of electricity, via single turbines or groups of

turbines (i.e. a wind farm). The level of electricity that a wind turbine produces is dependent on the wind speed and the area swept by the rotor blades. A wind turbine consists of a steel tower which supports a nacelle for a gearbox, alternator and the ‘yaw mechanism’ which allows the machine to turn itself towards the prevailing wind. A turbine can have a varying number of blades. There are essentially two types of wind turbine: vertical and horizontal axis machines. Within each type there are various technical differences such as the number of blades.

In recent years wind turbine technology has continued to advance significantly. Larger wind turbines, which are more energy dense, are being deployed and are capable of operating at lower average mean wind speeds (AMWS). This has increased the area of potential future deployment across Yorkshire and the Humber. This will help to meet national and regional targets for renewable energy generation. However, this advance in technology will mean there is the potential for greater impact on the landscape.

The table below outlines the key planning issues for each specific renewable energy technology.

Technology	Key planning issues
On-shore wind	• Impact on landscape and visual amenity • Impact on biodiversity • Impact on local communities • Noise from operational turbines • Shadow flicker and reflected light from operational turbines • Impact on aircraft/radar and telecommunications • Impact on highway networks • Impact on heritage assets

2.1.2 Targets for renewable energy development

In order to meet the Government's aim to increase the amount of energy generated from renewable sources, each of the nine English regions were required to include targets for installed grid-connected renewable energy capacity in their Regional Spatial Strategy (RSS). In the case of North Lincolnshire, the Yorkshire and Humber RSS (May 2008) provided targets for the provision of installed grid-connected renewable energy of 54MW by 2010 and 112MW by 2021.

The targets were derived from work undertaken during the preparation of the RSS in 2004/2005. The 2004 study *Planning for Renewable Energy Targets in Yorkshire and Humber* was commissioned by the former Regional Assembly and Government Office for Yorkshire and Humber to examine the region's potential for renewable energy generation. This shows that North Lincolnshire would have the potential to accommodate 11.7% and 13.8% of the region's potential wind energy development by 2010 and 2021 respectively. When compared against the fact that North Lincolnshire only covers 7.5% of the region's

landmass, this appears to be disproportionate and represents a significant concentration of wind energy development.

Broadly, the council consider the targets in the RSS to be challenging but achievable. However, North Lincolnshire Council is keen to ensure that all local authorities within the region contribute towards meeting their targets and prevent an over concentration of such development in North Lincolnshire. In reviewing any targets for North Lincolnshire, should the 2021 target be reached, account will be taken of progress elsewhere in the region.

The area already has some 50MW of installed capacity including the Bagmoor wind farm, which is just short of the 2010 target. However, it is anticipated that the 2021 targets will be easily met when the consented schemes at Tween Bridge and Keadby wind farms and Heron Renewable Energy Plant come on stream over the next few years.

It should be kept in mind that meeting the overall renewable energy target is of the greatest importance, not the method of renewable energy used to reach it. The development of a variety of renewable energy sources is encouraged, as the achievement of a greater diversity in our energy mix is vital to ensuring security and continuity of supply, in a climate where fossil fuels continue to be depleted.

Targets – North Lincolnshire will meet its 2021 targets for the generation of energy from renewable sources and will support the use of a range of technologies to do so. Any revision of this target will be subject to progress elsewhere in the Yorkshire and Humber region.

2.2. Environmental Impacts

Renewable energy schemes can contribute to the reduction of greenhouse gases, helping to reduce climate change and its impacts. They can also have potential impacts on biodiversity and nature

conservation, landscape and heritage assets. North Lincolnshire has a high quality historic, natural and built environment, the enhancement and protection of these is fundamental to sustainable development.

2.2.1 Biodiversity

North Lincolnshire's landscapes are rich in biological and geological diversity. This is reflected in the range of international, national and local nature conservation designations which includes one Ramsar site, two Special Areas of Conservation and Two Special Protection Areas on the Humber Estuary, River Trent, Thorne Moor and Thorne and Hatfield Moors, 29 Sites of Special Scientific Interest, 10 Local Nature Reserves (LNRs), approximately 200 Local Wildlife Sites (Sites of Importance to Nature Conservation – SINCs) and 22 Local Geological Sites (Regionally Important Geological Site).

It is important that the natural assets of North Lincolnshire are protected from inappropriate development, including renewable energy development. For international sites and any features they support, new development will need to demonstrate that they will not adversely affect their conservation value. Development should not cause harm to habitats and species outside the designated site that may adversely affect the integrity of the site, or cause a significant decline in the size, distribution, structure or function of a population of a species for which a site was designated. In accordance with the Habitat Regulations an assessment needs to be carried out for each new development to determine if it would have a likely significant effect, alone or in combination with other plans or projects, on sites or features associated with international designations. If likely significant effects are identified developers are expected to provide relevant information to the council to enable it to carry out a Habitat Regulations Assessment.

For national sites, developers will need to demonstrate that any renewable energy development will not have an adverse effect on

SSSIs. Measures will be taken to ensure that harmful effects on SSSIs are avoided or mitigated against. Exceptions will only be made where the benefits clearly outweigh the impacts on the interest of the SSSI and its contribution to the national network of SSSIs. More guidance can be obtained in OPDM Circular 06/2005, PPS9 and PPS22.

In addition to the international and national site designations there are a number of plant and animal species within England that are subject to special protection under the Habitat Regulations, the Wildlife and Countryside Act and their own legislation. Any renewable energy development will need to demonstrate that these are protected from adverse effect through the adoption of appropriate avoidance and mitigation measures.

Local Geological and Local Wildlife Sites also need to be considered when assessing renewable energy development. Any development sited within or close to or adjacent to such sites should not cause significant harm to these nature conservation interests.

Developers also need to consider the effects of development on non-designated sites and species. Government policy seeks to protect priority habitats and species in the UK Biodiversity Action Plan and any additionally identified in the Lincolnshire Biodiversity Action Plan. Many of these habitats and species extend outside of designated sites and consideration must be given to the potential impacts when developing any scheme.

Effects on biodiversity can take place during the construction, operation or decommissioning phases of a wind energy scheme.

Past experience of wind energy development elsewhere in the county has shown the main adverse effects on nature conservation to be direct habitat loss for feeding, roosting and breeding; habitat damage; interference with geological processes; and disturbance to,

displacement of and collision with mobile species. However, it should be noted all these adverse effects can be mitigated to some extent.

2.2.2 Bats and birds

The impact of bats and birds is a particular interest for wind energy development. All bats and some birds are protected species that need to be considered when developing a wind energy scheme. In areas where bat activity is likely, work will need to be carried out to establish roosts, flight lines, feeding areas, hibernation or swarming sites in the vicinity of a proposal as part of an Environmental Impact Assessment (EIA). The results of the EIA should assist to identify the appropriateness of the scheme, its design and layout by looking in detail at the nature conservation both on and off site and the potential impact of the development. If a negative impact is identified then mitigation measures would be expected to be provided within the locality to reduce the potential harm. Also time to establish new habitats needs to be taken into consideration. Any work carried out should be in accordance with the Bat Mitigation Guidelines, England Nature 2005 and Bat Survey Guidelines, Bat Conservation Trust April 2007.

The cumulative impact of bats and birds must also be assessed in relation to other proposed, approved or operational wind energy development.

2.17.1 **Policy 1 - Biodiversity**

Developers should assess the effects of potential renewable energy developments, alone or cumulatively on biodiversity sites, habitats and species and identify measures to avoid or mitigate harm to them and secure their conservation and enhancement.

If a scheme, alone and/or in combination with other plans and projects, could have an impact on an internationally designated site developers must submit all relevant information to the council for them to carry out an assessment of the likely significant effects of the scheme in accordance with the Habitats Regulations.

Developers should also pay attention to assessing the effects of renewable energy developments, alone or in combination with other development on bats, birds and other mobile species within and around the site. Measures should be identified to avoid or mitigate the harm to these species and secure their conservation and enhancement.

2.2.3 Landscape

North Lincolnshire's landscape is a fundamental part of the area's character and provides an attractive backdrop for residents, visitors and investors to live and work. The area is characterised by a variety of landscapes, significant changes to which have resulted following the extraction of minerals where semi-natural landscapes, such as Barton Clay Pits, Messingham Gravel Pits and the Ironstone Gullets, have been created, and also from the development of large-scale industry such as at Killingholme at the mouth of the Humber Estuary. The southern part of the Isle of Axholme has the most extensive surviving examples of a medieval landscape in England, notably the medieval open strip fields and Turbaries, both of which are of considerable national importance. These attributes, together with enclosed land and the overall settlement pattern of the area, make it unique in the country. Planning policy in the areas aims to protect and enhance such attributes, where appropriate.

It is the area's rolling landscapes, lack of national designations such as National Parks and relatively consistent wind resource that make it attractive to wind energy developers. It is likely that proposals for renewable energy development, depending on their location, will have some degree of impact on the landscape as well as visual amenity due to their size and appearance. Therefore, it is important that developers, when preparing schemes for renewable energy development, take account of any impacts on the area's landscapes. Careful consideration should be given to the character and quality of the landscape, the extent of physical change involved, and the ability of the landscape to accommodate this change. All these factors should be taken into account in scheme design.

In relation to landscape character and design, the council have approved Supplementary Planning Guidance, North Lincolnshire Landscape Character Assessment & Guidelines (1999) and North

Lincolnshire Countryside Design Summary (1999). These documents provide a comprehensive assessment of the area's landscape character and suggest guidelines for future development. The landscape character assessment splits North Lincolnshire into six basic landscape types: the Trent Levels, the Lincolnshire Edge, the Ancholme Valley, the Lincolnshire Wolds, the Lincolnshire Drift and the Humber Estuary. Accordingly, developers should consult these documents alongside current planning policies on landscape and conservation set out in the adopted Core Strategy and the North Lincolnshire Local Plan.

As previously stated, North Lincolnshire does not have any nationally designated areas of landscape importance such as a National Park or Area of Outstanding Natural Beauty. However, the lack of such designations does not mean that landscape is any less important a consideration in determining proposals for renewable energy development.

A number of Areas of High Landscape Value identified in successive local plans were removed with the introduction Planning Policy Statement (PPS) 7. The importance of these areas as established against landscape criteria issued by the then Countryside Commission. These areas included the Lincoln Edge Cliff (between Whitton and Flixborough), the Lincoln Edge Woodland and Heathland areas (east of Scunthorpe and extending south to Kirton in Lindsey), and the Wolds Villages Scarp Slope. Other areas were proposed at Deepdale (near Barton upon Humber), Barton Claypits and areas of woodland at Kirmington. The purpose of these designations was to safeguard the natural beauty, distinctiveness and diversity of the best and most highly valued of North Lincolnshire's landscapes. Therefore it is important that these areas of high landscape value are protected from inappropriate development. It should be noted that this Draft Supplementary Planning Document cannot reinstate these designations. These will be considered in the emerging General Policies Development Plan Document.

The council are also in discussions with Lincolnshire County Council to look at amending the Lincolnshire Wolds Area of Outstanding Natural Beauty to include land up to the Humber Estuary. The potential expansion area is identified on the constraints map in Appendix 3.

These areas are prominent features in North Lincolnshire's landscape and contribute to the area's distinctiveness; they form part of the area's critical environmental capital. It is important to ensure the integrity and setting of these places is not adversely affected by inappropriate development. Any proposals which affect these areas of high landscape value should be assessed against the council's existing Landscape Character Assessment and Guidelines, and Countryside Design Summary.

If required by the EIA Regulations the impact of any development upon the landscape as a visual and cultural asset should be assessed as part of an Environmental Statement. If potential impacts are identified a Landscape and Visual Impact Assessment (LVIA) should be undertaken. Before commencing an LVIA, developers should discuss its contents with the council. Depending on the type of renewable energy development, an LVIA could include the following:

- diagrams showing the potential zones of visual influence (ZVI) of the proposed scheme: these will be of assistance in identifying the resources (e.g. designated areas, landscape units) and the locations of visual receptors (e.g. settlements, public access land and popular viewpoints), which may be affected by the proposal

- photomontages and/or computer-generated wire-frame views: these should be prepared at an appropriate scale and resolution

- scale drawings to illustrate the physical appearance of the proposed renewable energy scheme: some authorities are

likely to be less familiar with specific technologies (e.g. biomass or energy from waste plants)

- in areas where there are existing renewable energy schemes, it may be appropriate to consider the cumulative impact of further schemes.

Further information is available in Planning for Renewable Energy - A Companion Guide to PPS22.

2.17.2 **Policy 2 - Landscape**

Developers should consider the landscape impacts of their proposal for renewable energy development. Consideration should be given at the earliest stage in the design process to the character and quality of the landscape, the extent of the physical change involved, and the ability of the landscape to accommodate the change.

Proposals in areas of high landscape value or which affect their setting will be rigorously assessed in relation to their impacts on these important landscapes. If adverse impacts are identified these should be avoided or mitigated. Should this prove impossible the proposal will be refused.

A Landscape and Visual Impact Assessment (LVIA), which must be agreed with the council, should be prepared and submitted alongside any planning application. Developers should also consult the council's approved Supplementary Planning Guidance on Landscape Character Assessment and Guidelines, and Countryside Design Summary.

2.2.4 Further Information

North Lincolnshire Landscape Character Assessment & Guidelines (1999):
http://www.planning.northlincs.gov.uk/PlanningReports/LocalPlan/SPG5LandscapeCharacterAssessment.pdf

North Lincolnshire Countryside Design Summary (1999):
http://www.planning.northlincs.gov.uk/PlanningReports/LocalPlan/SPG5CountrysideDesignSummary.pdf

Planning for Renewable Energy - A Companion Guide to PPS22 (ODPM, 2004):
http://www.communities.gov.uk/documents/planningandbuilding/pdf/147447.pdf

Guidelines for Landscape and Visual Impact Assessment (GLVIA); 2nd Edition (The Landscape Institute, 2002)

2.2.5 Visual effects

Renewable energy development can have significant visual impacts on its surroundings. This is dependent on their size, appearance and location. Accordingly it makes sense to select locations which minimise the area from which a proposed development would be visible. It is also important to consider the relative sensitivity of different viewpoints or receptors, and to use this understanding to influence the layout and design of the scheme.

A Landscape and Visual Impact Assessment (LVIA) should be provided as part of the Environmental Impact Assessment for proposed renewable energy development. Before commencing an LVIA, developers should discuss its contents with the council. This could involve an assessment of the visual relationship between the site and the surrounding area.

North Lincolnshire's experience is primarily with wind energy developments. Wind turbines are likely to be tall, frequently located in open land and therefore likely to be highly visible. Domestic wind turbines are likely to be smaller and it will normally be realistic to seek to conceal them. Developers are encouraged to ensure that the visual impacts are minimised and appropriate to the location of the wind farm development. In the case of North Lincolnshire, in particular the Trent Floodplain area, the landscape is fairly flat and uniform, therefore the visual impact of wind energy development will be substantial.

The visual effect of a wind farm will be dependent on:

- the distance over which it may be viewed;
- whether the turbines can be viewed adjacent to other features;
- different weather conditions;
- the design and layout of the development; and
- the landscape and nature of the visibility.

The following is a general guide to the effect distance has on the perception of the development in an open landscape. However, it should be noted that the each proposal and the associated visual effects will be treated on its own merits when being assessed against this guidance and other planning policy.

General perception of a wind farm in an open landscape	
Up to 2kms	Likely to be a prominent feature
2-5kms	Relatively prominent
5-15kms	Prominent in clear visibility - seen as part of the wider landscape
15-30kms	Only seen in very clear visibility - a minor element in the landscape

Taken from Best Practice Guidance to Planning Policy Statement

18 - Renewable Energy produced by the Department of Environment (Northern Ireland) (August 2009)

The visual impacts of renewable energy developments will be affected by their siting and layout in relation to local land form and landscape characteristics, and the qualities of the specific site, as well as by the size and number of turbines and/or buildings. Different layouts will be appropriate in different circumstances. For example, grouped turbines can normally appear acceptable as a single, isolated feature in an open, undeveloped landscape, while rows of turbines may be more appropriate in an agricultural landscape with formal field boundaries.

Although renewable energy developments may be complex, they should not appear confusing in relation to the character of the landscape. Ideally they should be separate from surrounding features to create a simple image. The design of each development must be appropriate to its site.

The style and colour of turbines and/or buildings may also be relevant. Experience with wind turbines suggests that solid towers appear less complex than lattice and tapering towers are generally regarded as being more elegant than cylindrical. In terms of colour, white or off-white is generally preferred, but other colours may be acceptable in appropriate circumstances. A semi-matt surface is required to reduce the reflection of light. However, colour choice can not be a substitute for good siting and design.

Ancillary elements also need to be fully addressed, as their impact can often be as significant. Access tracks should be routed and designed to minimise both visual and habitat impacts. This can be minimised by careful route selection, which takes account of layout and appropriate surfacing material together with the impact of cuttings, embankments and drainage channels. Managing problems of erosion and providing for reinstatement and enhancement of vegetation along the track is essential. Power lines, fencing, buildings and anemometer masts should be located and designed in ways that minimise clutter.

It must also be noted that the renewable energy developments will only have a certain design life. For example, when a wind farm reaches the end of its design life, the turbines should be removed as soon as possible following cessation of operations together with any ancillary activities and the site restored to a suitable standard which should be agreed with the council.

2.17.3 **Policy 3 - Visual effects**

The impact on visual amenity is a key consideration for developers in preparing schemes for renewable energy development. The size and appearance of the development should be taken into account from the earliest stage in the design process.

A Landscape and Visual Impact Assessment (LVIA), which must be agreed with the council, should be prepared and submitted alongside any planning application. Developers should consult the council's approved Supplementary Planning Guidance on Landscape Character Assessment and Guidelines, and Countryside Design Summary.

Where negative impacts on visual amenity are identified, developers should ensure that they are avoided or mitigated. If this cannot be done, the development will be refused.

2.2.6 Further Information

North Lincolnshire Landscape Character Assessment & Guidelines (1999)
http://www.planning.northlincs.gov.uk/PlanningReports/LocalPlan/SPG5LandscapeCharacterAssessment.pdf

North Lincolnshire Countryside Design Summary (1999)
http://www.planning.northlincs.gov.uk/PlanningReports/LocalPlan/SPG5CountrysideDesignSummary.pdf

Planning for Renewable Energy - A Companion Guide to PPS22 (ODPM, 2004)
http://www.communities.gov.uk/documents/planningandbuilding/pdf/147447.pdf

Guidelines for Landscape and Visual Impact Assessment (GLVIA); 2nd Edition (The Landscape Institute, 2002)

2.2.7 Heritage assets

North Lincolnshire has a range of heritage assets and a high quality historic environment. Renewable energy developments and associated infrastructure can have a detrimental impact on the heritage value of assets such as conservation areas, historic landscape, listed buildings, scheduled ancient monuments, archaeological remains and registered parks and gardens or their settings. To cause a negative impact the development does not have to be within the area of importance as it can affect views and landscapes of such areas. For this reason a

general exclusion area would not be appropriate as each asset will be set in different contexts and with their own unique concerns.

Renewable energy developments and associated infrastructure can have a direct impact on the historic environment and archaeological remains. They can also impair the setting of historic sites and can compromise the visual amenity of the wider landscape, detracting from the historic character, sense of place, tranquillity and remoteness. Therefore developers will be expected to provide a heritage assessment which will provide the appropriate information to address any heritage impacts. Developers should consult with the council's Historic Environment Record at an early stage when formulating their proposals for wind energy development.

2.17.4 **Policy 4 - Heritage assets**

Developers should consider the impact of their proposal for renewable energy development, both during and after construction on heritage and the historic environment.

Developers need to demonstrate that the objectives of the designation of the area or individual assets will not be compromised by the development, and that any significant adverse effects on the on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits.

2.2.8 Soils and Hydrology

The effect renewable energy development might have on the soil, hydrology and water quality of a site and its surrounding watercourse will need to be considered when determining any proposal. North Lincolnshire has areas of soils that can be easily harmed, be made unstable and that can take a long time to regenerate, for example peat. Disturbance to peat can release CO_2 into the atmosphere; however studies have shown that it is unlikely that this would be greater than the CO_2 saved by renewable energy production.

Any proposals that are being developed in areas with sensitive soils will need to demonstrate how harmful impacts can be minimised or avoided. It is also important not to cause significant harm to the

integrity of local watercourses as this could create harm to nature conservation interests.

2.17.5 **Policy 5 – Soil and hydrology**

Developers should consider the effects of their proposal for renewable energy development on the soil, hydrology and water quality in and around a site. Development should avoid harming soils, hydrology and water quality that would have a negative affect on habitats of principal importance for the conservation of biodiversity.

2.2.9 Flood risk

Over 44% of North Lincolnshire is identified as high flood risk in the North Lincolnshire Strategic Flood Risk Assessment (SFRA) 2010. National policies set out in PPS22 and PPS25 state that energy infrastructure, including renewable energy facilities, are considered to be essential infrastructure, and as result can be located in areas of flood risk without the need to apply a Sequential Test. However, this does not mean that consent will automatically be granted. This will depend on a range of factors such as whether the facility has on-site staff, whether it will continue to function in the event of flooding and whether it poses any contamination risk to water resources or soils. This would be demonstrated by an Exceptions Test (usually required for development in Flood Zone 3). Many forms of development involve the construction of impermeable surfaces which increase the volume and rate of surface water flooding downstream of the development. Renewable energy development should also not constrain potential flood storage areas to help deal with the increasing risk of future flooding.

2.17.6 **Policy 6 – Flood Risk**

Developers should provide a Flood Risk Assessment with any renewable energy development proposal of 1 hectare or more in Flood Zone 1 and any proposal in Flood Zone 2 or 3. If proposals are put forward in areas of high flood risk (zone 3), developers will be required to carry out an Exceptions Test. This should demonstrate that the development will be safe, without increasing flood risk elsewhere and where possible will reduce flood risk overall.

2.2.10 Community Impacts

There are clear benefits to be derived from renewable energy for communities and the country as a whole in terms of reducing CO_2 emissions and the reliance on fossil fuels by making better use of resources. This includes generating power from wind turbines and photovoltaic field arrays. However, it is the local communities that are directly affected by these developments.

Positive effects of renewable energy development can include rural diversification, the provision of jobs for local people, support of community projects and the provision of education resources. However, a range of planning-related issues are often raised as concerns by communities. Such concerns are dependent on the type of renewable energy scheme proposed but include landscape and visual effects, impact on habitats and wildlife, noise, the impact on the local economy and shadow flicker. In certain developments these concerns can be addressed through mitigation, but nonetheless developers must take account of the positive, negative and neutral effects that their proposals will have on those matters listed above and the impacts on the community. In addition to this, local communities often raise concerns relating to a reduction in house value.

In progressing proposals for renewable energy development, developers should work with local communities from early stages before a planning application is submitted. During this time community concerns should be addressed and likely impacts mitigated against or minimised.

2.17.7 **Policy 7 – Community impact**

Developers should work with the local communities which are affected by their proposals for renewable energy development in order to identify and address key concerns. The council should be satisfied that appropriate levels of community engagement have taken place and where concerns are raised, they are appropriately mitigated or minimised.

2.2.11 Noise

The noise generated by wind turbines, and the impact that this can have on the quality of life for communities has been the subject of much discussion and concern over a long period of time. Since the 1990s, wind turbine technology has improved and mechanical noise has been reduced to around that of the aerodynamic noise. Where wind turbines are well sited and designed, they can be generally quiet in their operation.

There are two distinct noise sources which are associated with wind turbines. The first of these is mechanical noise which is produced by the turbine's gearbox, generator and drive train, whilst the second is aerodynamic noise produced by the blades passing through the air when the turbine is operating.

Topography and local environmental conditions can also have an effect on any noise produced by wind farms. Wind generated background noise increases with wind speed, at a faster rate than turbine noise does. The difference between wind farm noise and background noise is liable to be greatest when wind speeds are low. In modern wind turbines, it is possible to reduce noise by varying the speed of the turbine depending on the wind conditions.

In identifying and assessing potential sites for wind energy developments, developers must identify key sensitive receptors in the surrounding area. These sensitive receptors can include residential areas or businesses that require a quiet location in which to operate. Should these be identified, the developer should undertake a noise assessment to determine whether or not there are any impacts upon them. Before commencing a noise assessment, developers should consult and agree suitable sensitive receptor locations and background noise monitoring locations with the council. For the most part, wind turbines can be located at a suitable distance from sensitive receptors thus not causing undue harm. However, should this not be the case,

developers should revisit the design of their proposal to mitigate again any unacceptable noise impacts. The council could also attach conditions to any planning consent to ensure that noise limits are not exceeded. In addition, noise impact assessments should be submitted for the construction and decommissioning phase of renewable energy developments, making reference to appropriate noise standards.

Any noise assessment should be carried out in line with the Companion Guide to Planning Policy Statement (PPS) 22 and the ETSU report 'The Assessment and Rating of Noise from Wind Farms'. It sets out a framework for the measurement of wind farm noise and gives indicative noise levels thought to offer a reasonable degree of protection to wind farm neighbours, without placing unreasonable restrictions on wind farm development or adding unduly to costs and administrative burdens on wind farm developers or the planning authority. The report provides a series of recommendations that can be regarded as relevant guidance on good practice. Developers should also reference the (unofficial) updated guidance contained in Volume 34, No. 2 of the Institute of Acoustics publication 'Acoustics Bulletin' of March/April 2009 titled "Prediction and Assessment of Wind Turbine Noise". This note provides updated guidance on the acquisition of baseline noise data taking into account site-specific wind shear, the prediction of turbine noise at receptors and the significance of low-frequency noise.

2.17.8 **Policy 8 – Noise**

When determining the siting and design of turbines the proximity of noise sensitive developments such as residential properties or businesses that need a quiet location in which to operate, must be considered along with appropriate mitigations to ensure that any turbine generated noise is at an acceptable level with other background noise. A noise assessment must be carried out to ensure that any turbine generated noise is at an acceptable level with other background noise. Further assessments should be submitted to cover the noise impacts of the construction and decommissioning phases of the development. If it is proven that a development has significant noise impacts on surrounding communities then it will be refused.

2.2.12 Further information

Planning Policy Guidance (PPG) 24 - Planning and Noise
The assessment and rating of noise from wind farms, ETSU-R-97, DTI: http://www.berr.gov.uk/energy/sources/renewables/explained/wind/onshore-offshore/page21743.html

Predication & Assessment of Wind Turbine Noise – Acoustic Bulletin (Vol. 34 No. 2) (March/April 2009), Institute of Acoustics
Guidelines for Community Noise World Health Authority: www.who.int/docstore/peh/noise/guidelines2.html

Health and Safety Executive Noise information: www.hse.gov.uk/noise

2.2.13 Shadow flicker & reflected light

When a number of geographical, seasonal and time conditions combine, the blades of wind turbines can cast a shadow over neighbouring properties due to the sun passing behind them. When the blades rotate, they cast an intermittent shadow. When experienced through a narrow window opening, it can, under certain conditions, cause a phenomenon known as 'shadow flicker' which may be detrimental to residential or workplace amenity. Shadow flicker is essentially where the shadow cast into the property appears to flick on and off. This phenomenon only affects properties which are located within a 130 degrees either side of north relative to the turbine, and the shadow can be experienced within 10 rotor diameters of the wind farm.

There are concerns that when flickering occurs at certain frequencies (speeds) it may also give rise to health problems in a small proportion of those suffering from epileptic conditions, particularly photosensitive

epilepsy. This is only likely to affect a very small proportion of sufferers, as wind turbines tend to operate at lower speeds than those which would trigger this condition. Normally turbines operated at a frequency of between 0.3 and 1.0 hertz. Health effects are unlikely to have the potential to occur unless operating frequencies of the turbine are between 2.5 and 3.0 hertz, and all other pre-conditions for shadow flicker effects to occur exist. Given this, it is likely that shadow flicker will tend to apply to effects on residential amenity.

Reflected light from rotating wind turbine blades is a potential issue that needs to be considered. This has been a problem associated with older wind turbines where the blades had a glossy finish. However, designs and finishes have emerged which allow for the amelioration of reflected light. For example, many modern wind turbines use a matt or semi-matt finish.

In order to avoid the adverse effects associated with shadow flicker and reflected light, developers should, in their site selection process, avoid situating wind turbines less than ten rotor diameters from properties that might be affected. If this cannot be avoided, developers are required to conduct an assessment to identify the extent and incidences of shadow flicker on surrounding properties. This assessment and its methodology should be agreed with the council and could include an assessment of window widths, the uses of the rooms with potentially affected windows and the effects of intervening topography and other vegetation. Should the assessment identify that significant shadow flicker effects are predicted on properties within ten rotor diameters of a turbine, mitigation may be available by changing the location of turbines within a selected site, by screening affected properties or by avoiding turbine operation during periods when shadow flicker would otherwise occur.

Another option open to the council is, where it has been predicted that shadow flicker effects may occur in theory, a planning condition may be imposed. This condition would state that wind turbines should operate

in accordance with a shadow flicker mitigation scheme which shall be submitted to and approved prior to the operation of any wind turbine, unless a survey carried out on behalf of the developer in accordance with a methodology approved in advance by the local planning authority, confirms that shadow flicker effects would not be experienced within habitable rooms within any dwelling.

2.17.9 Policy 9 -Shadow flicker & reflected light

In developing proposals for wind energy development, developers should ensure that full account is taken of the potential for shadow flicker and reflected light on nearby properties and the surrounding areas. Turbines should not be located within ten rotor diameters of neighbouring properties unless there is no alternative. Should this be the case an assessment of the impact of shadow flicker should be prepared, and where appropriate mitigation measures identified or proposals amended. If it is proven that a scheme has significant impact on surrounding communities then it will be refused.

2.2.14 Further information

Planning for Renewable Energy: A Companion Guide to PPS22, DCLG:
http://www.communities.gov.uk/publications/planningandbuilding/planningrenewable

2.3 Cumulative Impacts

As the number of renewable energy developments across the country has increased, and proposals for such development continue to be drawn up, the issue of their cumulative impacts is becoming an increasingly important, and contentious, issue to be addressed in the planning process. North Lincolnshire has already experienced a number of proposals for renewable energy developments, some of which have received planning consent and are now operational or under construction. Proposals continue to be put forward. Given this it is likely that increasing significance will be attached to the cumulative impacts of these developments. Cumulative impacts can relate to landscape and visual amenity, bird populations and other wildlife, the historic environment, the local economy or any other matter.

Cumulative impacts relating to renewable energy development may occur as a result of the combined consequences of one or more, or a mix, of the follow situations:

- an existing renewable energy development and a proposed extension to that development

- proposals for more than one renewable energy development within an area

- proposals for new renewable energy developments in an area with one or more existing developments.

Where a renewable energy development is being proposed or extended, alongside other proposed, consented or operational schemes, a cumulative impact assessment should be carried out to determine the overall effect on issues such a landscape character, visual amenity and nature conservation. Such an assessment should form part of an Environmental Impact Assessment (EIA) (if one is required), or be included within the planning statement submitted alongside any planning application. It is also required by the Habitat Regulations. Cumulative impact assessments should also assess the impact in conjunction with non renewable energy developments, as noted in Habitats Regulation Guidance Note 4: Alone or in Combination (HRN4) (English Nature, 2001).

Developers should adequately address the additional cumulative impact that their proposal would have on an area, along with other plans and proposals. Consideration should be given to static and sequential cumulative visual impacts and cumulative landscape impacts, and steps taken to ensure that these are minimal. Consideration should be given to potential cumulative impact on hydrology, hydrogeology, ecology, traffic and transport, aviation and radar, recreation, and local amenity. The cumulative impacts on noise and aviation should be assessed using British standards, best practice

guidance or protocols identified by the developer and agreed with the council. Unacceptable cumulative effects may provide sufficient justification to refuse a scheme that would otherwise, when assessed on its own, be considered acceptable.

The cumulative impacts of proposals for renewable energy development will be considered on case-by-case basis, in the light of existing baseline conditions, accurate descriptions and visualisations of effects on key receptors, and relationships with other developments. The council will determine each proposal based on full and careful consideration of the information. Cumulative effects will also be considered in terms of impact on adjacent neighbouring areas across the boundary from North Lincolnshire.

2.17.10 **Policy 10 – Cumulative effects**

In preparing proposals for renewable energy development, developers should address the cumulative impact that the scheme could have on North Lincolnshire, taking into account operational and approved developments, any extensions to operational or approved proposals, and other proposals being advanced through the planning system. Any assessments should address cumulative visual and landscape impacts, as well as hydrology, hydrogeology, ecology, traffic and transport, aviation and radar, recreation and local amenity impacts.

2.3.1 Further information

Scottish Natural Heritage has developed considerable experience in dealing with the cumulative effects of wind energy development. See 'Guidance - Cumulative Effect Of Windfarms' which can be found at: http://www.snh.org.uk/pdfs/strategy/Cumulativeeffectsonwindfarms.pdf

Information on what to include in cumulative impact assessments can be found in Habitat Regulations Guidance Note 4 (HRGN4) 'Alone or in Combination' which can be found at: http://www.mceu.gov.uk/MCEU_LOCAL/Ref-Docs/EN-HabsRegs-InComb.pdf

2.3.2 Aircraft and radar

Wind energy developments have the potential to adversely impact on aerodromes and radar as well as other navigation systems used for air traffic control purposes and aircraft instruments.

Wind turbines can represent a collision risk to low-flying aircraft and can interfere with the air traffic control radar and aircraft landing instruments. In relation to ground-based radar, the movement of wind turbine blades are a moving target for the radar beam. This can be mistaken for an aircraft or create clutter that can interfere with the radar system's ability to track aircraft near the wind energy development. Where there is a proliferation of wind energy developments, this can have cumulative adverse effects on the safety and efficiency of aircraft tracking. It should be noted that for ground-based radar to be affected, it must be in line of sight of the wind turbine blades. Given this it is essential that flight paths are determined and consideration given to what action can be taken to mitigate against collision risks and impacts on radar.

Under Civil Aviation Authority (CAA) guidelines, developers should consult the CAA's Directorate of Airspace Policy, the Ministry of Defence (MOD) (through Defence Estates) and National Air Traffic Services (NATS) on their proposals for wind energy development as early as possible within the planning process. They should use the proforma prepared by Renewables UK (formerly the British Wind Energy Association) to do so, which should be submitted to the organisations listed above.

The Directorate of Airspace Policy, in providing their assessment will base it on the CAA's policy and guidelines on wind farms. Where the proposals are located within a 30km radius of a safeguarded aerodrome, the CAA will tend to delegate any assessment to that particular aerodrome. In the case of North Lincolnshire, the area is covered by the consultation zones for Humberside and Robin Hood

Doncaster Sheffield Airports. There are also a number of small, civilian aerodromes within and adjacent to North Lincolnshire and developers should consult them regarding the effect of their proposal on operations.

The regime for military aircraft radar and operations is somewhat different. For military radar, there is a 74km advisory zone around such establishments, which means that the MOD must be consulted on any proposals within them to assess their potential impact. The MOD has produced a map of those areas of the country where they anticipate the construction of wind turbines could present operational problems to MOD air traffic control and/or air defence radar. However, this map is not definitive and the MOD reserves the right to make comments on any development. Developers considering making applications for permission to erect turbines within these areas should liaise with the MOD before making any such applications.

Another consideration in relation to the military is low flying which is part of tactical training for military pilots. North Lincolnshire is covered by Low Flying Area 11, which extends from around Teesside in the north to central Lincolnshire in the south. The MOD has prepared a map setting out Low Flying Consultation Zones from wind energy proposals. It identifies those areas where the MOD would have concerns about the impact of wind energy proposals on low flying. However, this map is not definitive and the MOD reserves the right to make comments on any development. Developers should liaise with the MOD before making any planning application.

Where significant impacts on aircraft or radar are identified, these may potentially be mitigated by alterations to the planned turbine height and/or the exact location and spacing of turbines on a site. Developers must submit clear evidence that Humberside and Robin Hood Doncaster Sheffield Airports, MoD and NATS have been involved in drawing up proposals.

2.17.11 **Policy 11 – Aircraft and radar**

Developers should consult the relevant safeguarding bodies, the MoD, NATS as well as operators of other aerodromes and radar systems as early as possible in the process of developing wind energy proposals. Development will not be permitted unless it is shown that close liaison has taken with the above bodies and that any highlighted impacts on radar and/or aircraft operation can be appropriately mitigated.

2.3.3 Further information

CAP 764 - CAA Policy and Guidelines on Wind Turbines, CAA:
http://www.caa.co.uk/application.aspx?catid=33&pagetype=65&appid=11&mode=detail&id=2358

BWEA Wind Farm Developers Application Proforma:
http://www.bwea.com/aviation/proforma.html

MOD Radar:
https://restats.decc.gov.uk/cms/aviation-safeguarding-maps/

MOD Low Flying Areas:
https://restats.decc.gov.uk/cms/assets/SiteFiles/datasets/LowFlyingZones16Dec2010.pdf

2.3.4 Telecommunications

Wind energy developments have the potential to affect electromagnetic transmissions. This includes radio and televisions signals as well as telecommunications. Wind turbines can, depending on where they are sited, block or scatter signals.

When drawing up proposals for wind energy developments, developers need to identify any line of sight radio and microwave signals that cross the proposed site. In doing so they should consult with the Office of Communications (OfCom) who hold information about communications signals and protect radio systems from interference. In assessing impacts on signals, OfCom will examine whether or not all or any part

of the wind energy development is within 0.5km to 1km of the path of fixed link. If this is the case, OfCom will advise the developer to contact fixed link's operator. Developers are also advised to consult with other organisations including utility companies and the emergency services (police, fire and rescue, ambulance and HM Coastguard) regarding any potential interference with their signals. Details of this consultation and its outcomes should be submitted alongside any planning application.

Scattering of signals tends to affect domestic TV and radio broadcasts. A wind farm can affect domestic television reception up to 5km from the wind farm. Terrestrial television transmissions for domestic reception within the UK are the joint responsibility of the BBC and Ofcom. The BBC can provide an online approximate assessment of populations that may suffer interference from a wind farm at a specified location. Developers should note, however, that *'the tool is not intended to be a substitute for an on-site survey where the potential for disruption to television services may more accurately be assessed*'.

Should a proposed wind energy development lead to fixed link signals being blocked, developers should clarify the likely impact with a competent supplier (or operator). Careful siting of turbines can assist in overcoming this issue. This means that the wind turbine blades can avoid a buffer zone around the signal path. This buffer is typically 100m either side of the signal path. If investigations on the proposed site shows that there is likely to be an impact on radio and TV reception, there are possible solutions such as upgrading domestic aerials or delivering the signal by another means e.g. via a cable.

Advice on any technical solutions should be sought from a member of the Confederation of Aerial Industries Ltd.

The council are likely to attach conditions to any planning consent to ensure these issues are appropriately dealt with during the construction phase. If negative impacts cannot be mitigated against it is unlikely approval will be given for a scheme.

As mentioned above, the design and layout of a proposal could be amended to mitigate any adverse effects on telecommunications identified from a technical evaluation of the site. In doing so, it is important to ensure that other environmental impacts, and particularly landscape and visual impacts, are considered alongside this. Experience elsewhere has shown that technical constraints such as this often dictate the overall design and layout without equal regard being given to landscape and visual impacts, biodiversity and cultural heritage.

2.17.2 **Policy 12 - Telecommunications**

Developers should contact OfCom at the outset of a project to determine any effects on telecommunications operators. This will assist with decisions on the final siting and design of a scheme and help identify any mitigation necessary if development is acceptable.

2.3.5 Further information

Further guidance can be obtained from Ofcom by contacting:
windfarmenquiries@ofcom.org.uk

The Impact of Large Buildings and Structures (including Wind Farms) on Terrestrial Television Reception, BBC and Ofcom, 2006:
http://www.bbc.co.uk/reception/info/pdf/buildings_factsheet.pdf

BBC online assessment tool: Available from:
http://windfarms.kw.bbc.co.uk/cgibin/rd/windfarms/windfarm.cgi

ODPM (2004) Planning for Renewable Energy: A Companion Guide to PPS 22

2.3.6 Highways/Rights of Way

The highways considerations associated with renewable energy development are largely similar to those considered for other development. However, certain types of renewable energy development, such as wind turbines and photovoltaic arrays, are likely to have a significant impact on the local network of roads. In all cases site access is an important consideration to ensure that the local

network of roads can accommodate the vehicles required to transport the renewable energy components. Any scheme will need to satisfy the Highway Authority that it is acceptable and recommended proposals should be discussed with the Highway Authority at the earliest possible opportunity.

An assessment of the full route to be used, including the site access, needs to be carried out in order to ensure that the road network can accommodate the loads and, where necessary, identify any measures that might be required. When examining such measures from a highway point of view consideration should also be given to any nature conservation interest on the route, and landscape and visual effects. In relation to public rights of way, access routes to developments, in particular wind turbines, should not be used unless there are no alternative options.

With regard to most types of renewable energy developments it should generally be possible to integrate existing public rights of way into schemes. However, in the case of wind turbines care should be taken to ensure an adequate distance is provided between public rights of way and turbines. At present there is no statutory separation distance between wind turbines and public rights of way (PROW) and PPS22 states that 'not oversailing public rights of way' is the minimum separation distance and the recommended fall over distance is considered adequate. The importance of existing and planned rights of way will need to be taken into consideration. Natural England recommends that separation distances for national trails should be 4 x the height of the turbine and for other bridleways 3 x the height. Impacts of wind turbines on PROW and national trails should be included as part of the Landscape and Visual Impact Assessment. The British Horse Society has recently issued new guidelines for bridleways that developers should take into account in any discussions.

Where renewable energy developments adversely affect the public rights of way network and/or landscape provision should, be made

where possible, include the dedication of new public rights of way to help offset the disadvantages to the public.

2.17.13 **Policy 13 - Highways & Rights of Way**

Developers should consider access to proposed sites for renewable energy development from the earliest stages in putting together proposals. All proposals should be accompanied by an assessment of the full access route to the site, which should meet the requirements of the Highway Authority. Where appropriate mitigation measures should be identified.

Developers should also consider the impact of their proposals on existing and proposed Public Rights of Way as part of any Landscape and Visual Impact Assessment submitted with any planning application. Particular attention should be given to Natural England's and the British Horse Society's advice on minimum distance between Public Rights of Way/bridleways and wind turbines.

Where developments adversely affect PROWs and/or landscapes, new PROW's should be provided where possible to offset any disadvantages to the public.

2.3.7 Further information

ODPM (2004) Planning for Renewable Energy: A Companion Guide to PPS 22

2.3.8 Grid connections and ancillary equipment

As with all energy development, a connection to the local electricity distribution network will be required. This connection will either be by overhead power lines or underground line. Underground lines are 6-20 times more expensive, so are likely to only be used for limited lengths or in special circumstances. Their design and route is the responsibility of the electricity Distribution Network Operator (DNO) and does not need planning permission from the council. Although this is the case, it is important that any ancillary and infrastructure development associated with the proposal, such as the grid connections, is considered as part of the overall design.

Undergrounding of power lines may be preferable for landscape and visual impact reasons, however there may be other negative environmental effects as a result, for example disruption to sensitive soils or vegetation or archaeology. This should be factored in when

determining the best approach to take for any particular scheme. Where cabling is required to be located underground, which is usually the case in the interests of visual amenity; this will be the subject of a planning condition. The cabling condition may also require that, following the installation of cables, the ground be reinstated to its former condition for both ecological and visual amenity reasons, in a given time period, to the satisfaction of the local planning authority. Full reinstatement may not be required in all circumstances, for instance if the land is arable farmland.

Other ancillary equipment associated with renewable energy development, especially wind energy developments, needs to be considered as part of any proposal. This includes access roads, foundations, transformers and substation buildings, and fencing, and could affect a range of environmental issues. Sensitive vegetation and soil type, 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.

Grid connections should avoid internationally, nationally and locally designated sites and should avoid harm to protected and priority species and habitats. Connections should also provide biodiversity enhancements wherever possible including positive management of wayleaves.

2.17.14 **Policy 14 - Grid connections and ancillary equipment**

In determining the best route for grid connections and the positioning of ancillary equipment as part of renewable energy development, developers should ensure that they properly integrate the layout of the development with the landscape and topography of the site. Visual clutter should be minimised whilst existing landforms and vegetation should be used to screen ancillary equipment.

Areas of sensitive soils and vegetation as well as changes which have a negative impact on local hydrology should be avoided. Also trees and archaeological features should be protected. Where development does involve sensitive areas developers should provide a construction and reinstatement method statement as part of any planning application

In designing access to, and around sites, developers should consider using existing tracks and access points. Track lengths should be minimised and they should be designed to blend into the landscape. After construction, tracks should be reduced in extent and width. At decommissioning they should be return to their original state.

The proposals are clearly contrary to this SPD due to the demonstrable harm that this development would cause in terms of impact on the landscape and the failure to demonstrate that there would not be a noise nuisance from the turbines mean that it is clear that the environment is not capable of absorbing this large-scale industrial development without unacceptable harm occurring and the proposals are contrary to this policy.

The 2004 study 'Planning for Renewable Energy Targets in Yorkshire and Humber' makes it very clear that:

'North Lincolnshire has a significant potential for wind development. This potential needs to be exploited with care to avoid levels of wind development that might be regarded as excessive compared to other LAs.'

This application breaches this advice and if the appeal were to be allowed then the impact upon North Lincolnshire would be unfair and disproportionate to the actual landmass of the borough, the impacts felt by the residents of the most affected settlements would be unjust and the council's reasons for refusal are sound and are magnified by the high level of renewable energy projects coming forward in North Lincolnshire.

Further chapters in this appeal statement substantiate the council's case in detail on the issues of landscape, health and noise.

3.0 The Previous Appeal and the Council's Decision

3.1 The proposals originally involved the erection of seven turbines but the developers indicated they would accept a condition to omit the turbine nearest to Burton.

The appellant has, however, appealed for all seven turbines to be allowed.

3.2 The proposals have been refused planning permission three times by the Planning Committee of North Lincolnshire Council, and application WF/2008/0900 was determined by way of Public Inquiry in February and March 2010. The appeal was dismissed on the grounds of the serious impact upon the wellbeing of the children of a local family. The appeal reference was APP/Y2003/A/09/2105130 and the date of the decision was 19 April 2010.

3.3 The Inspector made clear in the decision that the impact the windfarm would have upon the children meant the development should not be allowed to go ahead. The evidence he heard convinced him that the health impacts upon those children could not be underestimated and that it would be difficult to imagine how the family would be able to continue to live at their home if the windfarm were to be built, and that the family's' efforts to create a safe and normal home for their children would be seriously compromised. The Inspector stated that 'the proposed wind farm at Flixborough Grange would have a very serious adverse effect on the health and well being of the Glathorne family.

3.4 The Inspector's balancing exercise

When the Inspector carried out the balancing exercise he stated that the main issue is addressed in Local Plan Polichy DS21 which states that the proposals for the generation of energy from renewable sources will be permitted provided that, amongst other things, any detrimental effect on features and interests of acknowledged importance, including local character and amenity, is outweighed by environmental benefits. (para 34). The Inspector goes on to state that the proposed windfarm would have an immediate effect on the health and well being of the Glathorne family, that the effect would be very serious for the children and also for the parents as principal carers. (para 39). The Inspector carries on at paragraph 39 to state that 'the construction and operation of the seven turbines would have very serious adverse consequences that would not be outweighed by the environmental benefits of the renewable energy scheme.' The Inspector makes it clear that the health and well being of residents is an interest of acknowledged importance and therefore that renewable energy scheme conflicted with Local Plan Policy DS21.

On that basis the Inspector dismissed the appeal.

3.5 The appellants reached agreement with the family and their objection was withdrawn, following which the developer re-submitted the application.

Another local family have children with health issues and they live in a property with a line of sight to the turbines. They objected to the current proposals and the application was refused permission on that basis as well as landscape and noise. However they have reached agreement with the developer on mitigation and have withdrawn their objection.

3.6 The Council's Decision

The application the subject of this appeal was refused at Planning Committee following a recommendation of approval. In complex applications such as this, where there is significant public interest and concern, it is not unusual, or inappropriate, for Members to take a different view to planning officers in the weighing of the planning balance, provided that there was material upon which Members were able to come to their conclusion.

Decisions on planning applications need to be made in accordance with the development plan unless material considerations indicate otherwise. The officer report to committee set out the national energy policy and the national planning policies, the development plan policies and all the material considerations which needed to be taken into consideration.

In this case the balance needed to be made was between the importance of renewable energy generation and any significant and adverse impacts on landscape and local amenity. The Planning Committee came to the view, after considering all the evidence, that the planning balance was against the proposals.

The following chapters substantiate in detail the council's reason for refusal.

4.0 Landscape

1. Introduction

1.1 The location of the site and the nature of the proposed development are as set out in the introduction to this appeal.

1.2 The council's landscape case is straightforward. The Lincoln Edge Cliff (The Cliff) (part of the Northern Lincolnshire edge and Coversands National Character Area) situated adjacent and to the east of the application site is a significant landscape feature, part of the area's critical landscape capital. The Cliff has a characterising influence over significant tracts of landscape adjoining and to the west, it is both physically and culturally significant in that it defines a clear division between the distinctive landscapes of the Lincolnshire Edge and those of the Humber Head Levels. Culturally the Cliff at Burton upon Stather has for several centuries been highly regarded as a place for the extensive views it affords to the west over large tracts of the Humber Head Levels landscape as far as the foothills of the Pennines.

1.3 The council holds the opinion that The Cliff forms part of the critical landscape capital as part of the natural heritage of the area. In addition, the Cliff is identified in national landscape characterisations as forming a significant part of a larger landscape feature of more than local importance. It is therefore, clearly desirable and in accordance with stated national and local planning policy that this feature is protected at a local level both for the benefit of local people but also in the wider interest.

1.4 This is the second application and appeal for this site involving similar developments for wind farms that the council has had to deal with. The previous application and appeal was supported by essentially the same landscape and visual impact assessment as has been presented here. Whilst that appeal was dismissed (April 2010), it was not for reason of

adverse landscape effects. Indeed Inspector Braithwaite concluded that whilst there were significant and adverse effects upon landscape character and upon the amenity of various receptors in the landscape, these would be so confined locally that had the only issue been landscape considerations, he was likely to have allowed the appeal.

1.5 In the council's opinion debate around landscape issues in that appeal was mainly informed by the landscape and visual impact assessment and the cumulative impact assessment submitted as part of the appellant's case (this being required as part of the Environmental Statement for the purposes of the Environmental Impact Regulations). At the time, the council contended that too little emphasis was being placed upon the significance of the landscape formed by the Cliff and the quiet vale adjacent to it, containing the application site. It was however, unable to convince Inspector Braithwaite of this.

1.6 In this part of the appeal statement, the council will elaborate upon its view that the Cliff is of such significance that the residual effects of the proposed development will be harmful to the character and significance of the Cliff. It will also present evidence to substantiate its case that the Cliff is a significant feature of more than local importance and that views to and from it should be protected from the effects of the proposal before this appeal. In this chapter the council's case will be set out as follows: -

a) A general description of the structure of the landscapes found within North Lincolnshire as portrayed in the both the national Landscape characterisations for the area.

b) A discourse upon the the National Landscape Characterisation; the council will demonstrate the relative importance of the Cliff as a significant landscape feature of more than local significance.

c) An examination of the quality of the Cliff as a local landscape feature, and the work undertaken by a respected firm of landscape architects substantiating this.

d) Consideration of the significance of the Cliff as a landscape feature set within the context of the capacity of the Lincoln Edge landscape to accommodate wind farm development. This part of the council's case considers the notion of significance in landscape terms set within the capacity of the landscapes of the Yorkshire and Humber Region to accommodate wind farm development.[1]

e) The history, nature and significance of views out from the Cliff at Burton upon Stather and the importance of these views and the area generally to the tourism of the area.

2. Background: the landscapes of North Lincolnshire.

2.1 In recent years the size and height of wind turbines has generally increased, those proposed for the appeal site will be amongst the tallest currently on shore if allowed. By virtue of their size therefore, wind turbines can cause major change in landscapes. In addition, however, their impact is often enhanced because they also move which attracts the eye and under some lighting conditions, this movement can be highly visible from a long distance.

2.2 The landscapes of North Lincolnshire are at once varied and highly structured. North Lincolnshire is rather unique in landscape terms in that it has six distinct national landscape character areas represented within its borders. North Lincolnshire makes up about 5% of the total land area of the Yorkshire and Humber Region but possesses 25% of

[1] S Locational Guidance for Wind Energy Development in Respect of the Natural Heritage. A four volume publication produced for the Government office for Yorkshire and Humber and the Yorkshire and Humber Assembly. Vol 3 http://www.gos.gov.uk/497763/docs/199734/199731/247395/291520

all the NLC areas represented in the region. Although essentially rural in character, the borough has significant enclaves of both urban and industrial landscapes with steel making and despoiled landscapes around Scunthorpe (central to the Lincoln Edge NLC area) and landscapes dominated by petro-chemicals on the Humber bank.

2.3 Aside from the Humber NLC area that runs east west, all others within the area are orientated north south and are at their narrowest extent adjacent the River Humber. This means that on travelling (say), west to east, it is possible to cross all six National Landscape Characterisation Areas in quick succession. Similar levels of landscape variability are found elsewhere in the country generally, however, to find such variability over such short distances is quite unusual and is often considered to be of note (e.g. the landscapes of the Weald and in the area of the Peak District).

2.4 Because the Jurassic and Cretatous geological series under-lie the area, the presence of steep west facing scarp slopes interspersed with long back slopes gives a clear and distinct legibility to the landscape. From the west, the scarps either block or contain views and provide a sense of containment when travelling north and south (the line of many roads in the area). From the east, the scarps truncate views away from their brows and offer up large sky scapes. At the brows however, panoramic views extend out across tracts of largely intensively farmed agricultural land both to the west from the brow of the scarps and to the east down the back slopes associated with them.

2.5 Within these views industrial development is mainly confined to the inner scarp of the Lincoln Edge around Scunthorpe and, to the Humber bank, most notably at North and South Killingholme in far east periphery of the area toward North East Lincolnshire. Despite the presence of significant industry therefore, the nature of the topography results in a highly structured landscape of an essentially rural character

and appearance. The most significant features of this tightly confined landscape, either because of their characterising effect when seen as part of the wider landscape or, because of the views out over adjoining landscape the significant features they afford, are the scarps. That is the scarp of the Lincolnshire Wold and the double scarp of the Lincoln Edged north of the visual envelope of Scunthorpe and its surrounds (north of Flixborough as viewed from the east).

2.6 It was in order to better manage and understand the potential impacts of change within this landscape upon its existing character and appearance that North Lincolnshire Council was amongst the first in the country to publish a landscape assessment and design guidance for the whole of its administrative area. It is with the significance of the landscape effects upon one of the scarps, which define the area such that it must be considered part of the area's critical landscape capital, that this appeal is concerned with.

2.7 The council hold the view that the people of North Lincolnshire have a strong attachment to the rather unique character of this area and its many scenic qualities that are largely associated with and arise from the interplay between long views out across the countryside and contained views within it. This love of and attachment to this place is evidenced in the concerns expressed by local residents concerning this proposed development and it is to these legitimate concerns that the council has responded.

3. National Landscape Characterisation – Importance of the Cliff Landscape.

3.1. In line with central government policy the council attaches considerable weight to retaining the local distinctiveness and the intrinsic qualities of its landscapes. The Cliff adjacent the application site forms part of a much larger landscape feature of the Lincolnshire Edge characterisation area. At the level of the National Landscape Characterisation (NLC) reference to the Cliff forms a significant part of

the area descriptions for Areas 45 and 47 the Northern Lincolnshire Edge with Coversands and Southern Lincolnshire Edge respectively.[2]

3.2 The NLC states that the landscapes of the Edge form a distinctive limestone backbone to Lincolnshire as a whole in which the Cliff is "The most distinctive topographical feature of the area." In a distinctive landscape therefore, the Cliff is considered to be the defining feature of the character area the "simple linearity of which" is complicated dramatically in three areas along its length the second most notable example of which is from Scunthorpe to the Humber where a second outer scarp of ironstone is present closer to the Trent i.e. the Cliff adjacent the application site and its continuation northward past Burton upon Stather to the Humber.

3.3 The National Landscape characterisation therefore, identifies a significant linear feature in the landscape of Lincolnshire of considerable length and scale of which the Cliff adjacent the application site forms part. It is clear therefore, that this is a distinct and important feature of the regional landscape the significance of which in the landscape is enhanced because it is set adjacent to and has a characterising effect upon the low lying areas of the Humber Head Levels and the Trent and Belviour Vales.

[2] http://www.naturalengland.org.uk/Images/jca45+47_tcm6-5658.pdf

4. The Quality of the Cliff as a Local Landscape Feature..

4.1 Paragraph 2.23 at Page15 of "The Guidelines for Landscape and Visual Assessment – Second Edition 1996" states :-

> *"Changes in the landscape can have a direct and immediately apparent effect upon people's surroundings. It is therefore necessary to identify the landscape components that are valued by the community or society as a whole, why and how they are valued, the people to whom they are valuable – that is 'what matters and why'"*

4.2 The following paragraph states that: -

> *"The determination of landscape value can be based upon particular characteristics that contribute to a 'sense of place' or influence the way in which a landscape is experienced, and on special interests such as cultural and literary associations, nature conservation or heritage interests. Landscape value may also incorporate a description of the condition of the landscape elements and features, and the way that they contribute to its character".*

4.3 The term 'landscape value' may be equated with the Council's concern that the Cliff and its wooded scarp is significant as a landscape feature. The value placed upon a landscape however, is a subjective thing and in order to establish the value of landscape and therefore, ascribe a measure to its significance, there is a need to establish a measure of its quality.

4.4 It should be noted that there is a fundamental difference between the concept of **landscape character**, which provides a relatively objective description of the various components that contribute to the landscape, and the ways in which they combine to creative distinctive patterns, and **landscape quality.** The latter involves opinion that is more subjective and judgement as to its perceived attractiveness in relation to

surrounding areas, and attaches a value to the landscape that broadly reflects its strength of character (visual, ecological and cultural) and condition.

4.5 One measure of quality is that ascribed by central government through the recognition of landscapes said to be of national importance. At the time of writing, there are no local landscape designations either. Such a designation did exist as part of the North Lincolnshire Local Plan but this has not been carried forward as a saved policy. This local designation – Area of High Landscape Value – attached to several parts of the borough and was generally associated with protecting the scarp slopes from development within the designations.

4.6 In 1999 as part of the Local Plan process the then proposed designations were reviewed against the provisions of Planning Policy Guidance 7 which stated: -

"Local Planning Authorities should only maintain or extend local countryside designations where there is good reason to believe that normal planning policies cannot provide the necessary protection. They should state in their development plans what it is that requires extra protection and why. When they review their development plans, they should rigorously consider the function and justification of existing local countryside designations. They should ensure that they are soundly based on a formal assessment of the qualities of the countryside."

4.7 This document has been superseded by PPS 7, however, the tests for reviewing whether local landscape designations are justified as part of local plan provision remain essentially the same.

4.8 As far as the landscape character area of the Lincolnshire Edge Cliff is concerned, the outcome of the 1999 review was that the local landscape designations were considered justifiable and this review finding was accepted by the Inspector dealing with the Local Plan

Inquiry in Public. The outcome of this was that the Lincolnshire Edge Cliff designation, which was similarly identified in previous local plans, was confirmed and included in the local plan. Both the review and the designation are referred to in the adjunct to Policies LC7/LC8 of the Local Plan.

4.9 The work in assessing the quality of North Lincolnshire's landscapes Landscape Value was undertaken by the landscape architects Estell Warren, the same company that produced the Landscape Character Assessment and Guidelines for the area. This review which was undertaken in 1998 as part of the pre deposit draft for the Local plan was adopted as part of the Local Plan in May 2003. Whilst the landscape designations to which the work referred have been removed from the list of saved documents in the Local Development Framework, the findings of this review are still relevant and were referred to in the local plan.

4.10 The assessment was made against criteria established by the then Countryside Commission. It was found that the landscape quality of the Cliff was of key importance as a landscape resource within North Lincolnshire; it provides a distinctive relief feature, and; it marks a transition between the flat floodplain of the River Trent and the elevated escarpment topography of the Lincoln Edge. As a landscape feature it exhibits a pleasing scenic quality, including extensive woodland cover on the scarp slope, mixed with small pockets of farmland, areas of scrub and houses extending down the slope from the scarp top villages of Alkborough and Burton-upon-Stather and the scarp top of well-treed farmland and parkland with blocks of woodland.

4.11 As such the landscape character contrasted sharply with that of its surroundings, a point made in the NLC, reference a "distinctive landscape".

4.12 This significant landscape feature also includes the extensive views across the Trent and Humber Estuary. This contributes to imparting a

distinct sense of place and a character to the area which although visually dramatic is also tranquil. This character has remained largely unspoilt, although locally degraded by features such as transmission lines and Flixborough Stather Industrial Estate. Architectural interest is provided by characteristic scarp-top villages and by scarp-top church spires that can be viewed from across the Ouse and Trent lowlands. The majority of the Cliff was designated a Site of Nature Conservation Interest.

5. Landscape Qualities and Capacity.

5.1 The council has not undertaken any landscape capacity assessments of its landscapes concerning the potential effects of wind farms or, any other forms of development. During December 2004 however, a report entitled Planning for Renewable Energy Targets in Yorkshire and Humber was published.[3] This considered the quality of landscapes in the Region and a measure against which the capacity of those landscapes to accommodate (amongst other things), wind farm developments could be assessed.

> *"This guidance sets out to define, on the basis of natural heritage, the sensitivity or potential capacity of different areas of Yorkshire and the Humber to accommodate onshore wind energy development."*[4]

5.2 The guidance provided advice based upon an assessment system devised by the landscape architects and environmental consultants, Gilespies. The assessment system used was based upon current best practice in landscape assessment[5] and was specifically entitled "*Strategic Locational Guidance for Wind Energy Development in Respect of the Natural Heritage".*

5.3 The guidance covers all 24 NLCA's found in the Yorkshire and Humber Region but it is not designed to be "…prescriptive at an individual site level and does not replace the need for local planning authorities to assess their own areas in more detail for forward planning purposes. Neither does it replace the need for specific local landscape and visual impact assessment as part of an Environmental Impact Assessment. It does, however, set the context in which targets for individual local authority areas can be formulated in line with the regional and sub-regional renewable energy targets."

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[3] See footnote 1 above.
[4] Ibid. Volume 3: Introduction.
[5] Policy Statement No. 02/02, Strategic Locational Guidance for Onshore Wind Farms in Respect of the Natural Heritage, Scottish Natural Heritage, 2002

5.4 The advice suggests that wind energy development should avoid areas that are valued for their scenic, recreational and undeveloped qualities or their high biodiversity interest. It provides broad guidance as to areas where wind energy development is likely to be most acceptable in terms of the natural heritage and to locations where such considerations are unlikely to arise. Importantly, at a strategic level it identifies the natural heritage sensitivities that should be considered by both local planning authorities and wind farm developers.

5.5 Following central government advice it suggests a broad presumption against development on environmental or amenity interests safeguarded by international or national designations.

5.6 On the basis of the assessment work undertaken it proposes that wind farm development should be guided to landscapes that are already significantly modified or developed, as far as this is reasonably practical within the context of national, regional and sub-regional targets. Wild or remote landscapes should be safeguarded and elsewhere wind energy development should be broadly acceptable in areas where any adverse effects can be mitigated through sensitive design and siting at the local level.

5.7 The guidance goes on to assess the landscapes of the Yorkshire and Humber Region. There are two NLCA of importance to the determination of this appeal, the Humber Head Levels (Trent levels in the councils local landscape characterisation[6]), and the Lincolnshire Edge. The Levels landscape, within which character area the proposed development would be sited, is considered to have a low sensitivity to wind farm development.[7]

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6 http://www.planning.northlincs.gov.uk/PlanningReports/LocalPlan/SPG5CountrysideDesignSummary.pdf
http://www.planning.northlincs.gov.uk/PlanningReports/LocalPlan/SPG5LandscapeCharacterAssessment.pdf

7 S Locational Guidance for Wind Energy Development in Respect of the Natural Heritage. A four volume publication produced for the Government office for Yorkshire and Humber and the Yorkshire and Humber Assembly. Vol 3 http://www.gos.gov.uk/497763/docs/199734/199731/247395/291520

"The assessment of relative sensitivity of non-designated landscapes is based on the Countryside Agency's current approach to landscape assessment set out in "Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity" published in January 2004. Essentially, this uses an understanding of countryside character to help inform broad assumptions as to what makes one landscape relatively more or less sensitive than another to wind energy development. The assessment of sensitivity is based on professional judgment informed by an analysis of the key features of the regions 24 Character Areas as reflected in the Character Map of England2 and associated descriptions."

5.8 The Humber Head Levels is therefore, a landscape assessed as having the lowest sensitivity to wind energy development and the greatest opportunity for development. Within these areas a significant number of developments could be acceptable, if they are undertaken sensitively and with due regard to cumulative impact.

5.9 The Lincoln Edge NLCA is assessed as a Zone 3 landscape (Zone 1 being landscapes with the highest sensitvity: Zone 4 (as with the Levels), having the lowest sensitivity to wind farm development). This is assessed as having a medium sensitivity such that there is likely to be scope to accommodate development of an appropriate scale, siting and design and taking regard of cumulative impact. However, in the detail of the assessment for the Lincoln Edge Landscape the following is stated:

"…The escarpment often comprises a distinct edge, which contrasts with the adjacent lower lying landscapes. By introducing a vertical reference, turbines have the potential to diminish the apparent height of the escarpment, whether located on the hilltops or on the lower slopes. Wind energy development could relate to areas where the escarpment is less distinct and to areas where the landform has been modified such as around Frodingham."

5.10 Whilst the proposed development would be located in the Levels character area with a low sensitivity to wind farm development, the siting of such tall structures adjacent the Edge scarp (the Cliff), would have the same impact to all intents and purposes upon the quality of the landscape as structures placed on the lower slope i.e. they diminish the apparent height of the escarpment and are therefore, detrimental to landscape quality and character.

5.11 This assessment as to the effects of potential development upon the landscape feature is in line with guidance contained in the North Lincolnshire Landscape Character Assessment and Guidelines. At page 78 of the guidance under the heading of Strategic Guidance for the maintainace of the Lincolnshire Edge Cliff it is stated that the strategy is to: -

> *"Seek to conserve and enhance the ecological diversity and intimate wooded character of this prominent scarp slope by sympathetic management techniques."*

Further, in the detailed guidance associated, it is stated:-

> *"Maintain the scarp slope in its existing visual context i.e. preserve the existing skyline and restrict new buildings and structures."*

5.12 From this we learn that the scarp slope is a prominent feature in the landscape which confirms what we see on the ground. If we consider both the local characterisation area (used in the submitted ES as the basis for an assessment of character and visual effects throughout that area), and the NLCA 45 document, we find that what is stated nests well with all other information concerning the scarp slope i.e. it is a prominent feature of the landscape, it rises from the vale land, it is quote "The most distinctive topographical feature of the area…"[8]

[8] NLCA 45/47

6. The significance of views out from the Lincoln Edge Cliff and the importance of these to tourism in the area.

6.1 There is a remarkable similarity in the way in which the Lincoln edge landscape and the Cliff is referred to in literature and the content of letters to the local planning authority from local residents. In particular, the views from the escarpment are identified as being of considerable importance.

6.2 The first written reference to these views appears in the diary of Abraham De la Pryme, Minister to the Parish of Thorne who, upon visiting Burton-upon-Stather in 1695 stated that the village "…stands upon the very height of the hill, and has mighty fine prospects all to the SW and NW". Pryme's diary was not published however, untill the early 19th century, however, in a published document of 1843, The History of Gainsborough, one Adam Stark stated "… few places possess a more extensive or agreeable prospect, not less than twenty six churches is said to be seen from it".

6.3 A further reference is found in Sir Charles Anderson's 'Guide to Lincoln', this about 1820, "… the very remarkable and in our view unique view from the bank of Burton-upon- Stather…there…we often stood and watched the steamers, the varied sails of the billy boys and the keels… This reference celebrates not only the views but the development of the steam packet services which plied the Humber from 1814 to 1932. Travel and the movement of goods by water was and remains an important feature of the areas landscape and the proximity of The Cliff to the River Trent remains an important local landmark signifying the close proximity of the Trent/Humber confluence at Trent Falls. In addition, the water borne trade on the Trent certainly extended to the near continent with Burton acting as entrepot navigation down to Gainsborough and back to Hull and beyond.

6.4 E A Jarvis's book 'Buron-upon-Stather (from which these quotations area taken), states at Chapter 2, that during the early nineteenth century Burton was regarded as the metropolis of the Trent, the place from which distances were measured to other towns and villages. He describes the settlement as "a desirable locality" with "exceeding fine views". He then goes on to list the various features within the landscape below that can be discerned on a good day including the Derbyshire, Hambelton and Yorkshire Hills, York Minster and Selby Abbey. Clearly, the construction of power stations on the Trent, notably Drax, has changed the composition of these views however, the "exceeding fine views" remain important.

6.5 Also in "The Parish of Burton-upon-Stather" published as a pictorial record of the area compiled by a Geoff Robinson and published in 1996 we find that the "Burton Hills" (the wooded slope and associated area to the south, were leased by the Parish Council prior to 1900. The area was used until the outbreak of the Second World War to stage weekly entertainments with the Parish letting ground at a rent of 6/- for a skittles stall and a coconut shie. On bank holidays, more stalls were let and the area became a popular recreation area for people from Scunthorpe many of who would regularly walk to the village via Flixborough (my understanding is that people still continue to walk out from Scunthorpe at a weekend by this route).

6.6 The use of this land for recreation attracted people in motorised vehicles from further a field thus cars and organised bus trips were attracted to the area mainly it seems for people to enjoy the views and walk in the quiet of the countryside. Robinson refers to attempts by the Parish to construct a car park in 1931 in order to accommodate what he terms the large volume of traffic that was being attracted to the area.

6.7 The land used for recreation was commandeered by the military at the outbreak of war and the area was famously used for the secret testing of amphibious vehicles used in the D Day landings (a recent event was

the reopening of the slipway into the Trent used by these military vehicles). The testing is said to have so refined the vehicle that few lives were lost during the landings to capsize or equipment failure.

6.8 After the war the “fun fair” aspects of the Burton Hills were not recreated and the Parish did not renew its lease. However, it is known that the area still attracts people from outside the area for quiet recreation, Burton has two caravan sites each of some size and recent developments at Alkbrough a few miles to the north along the Cliff have attracted many more people to the area generally. Historically therefore, the area has always been used for recreation and has been valued for its quiet in contrast to Scunthorpe and of course for the views, so much so that residential development in the south of Burton adjacent the Cliff was purposely laid out to afford views from the Cliff. Elsewhere, to the north, away from a direct view of the site, woodland management has sought to create clearances in the woodland to facilitate views out to the northwest.

7. Considerations

7.1 Paragraph 18 of Planning Policy Statement 1 notes that: ‘the condition of our surroundings has a direct impact on the quality of life and the conservation and improvement of the natural and built environment brings social and economic benefit for local communities.

7.2 In terms of development within the open countryside Planning Policy Statement 7 advises that the governments objective is “to raise the quality of life and the environment in rural areas: through sustainable forms of development and, in particular through “good quality, sustainable development that respects and where possible enhances local distinctiveness and the intrinsic qualities of the countryside.”

7.3 Clearly, when proposed development does not respect local distinctiveness and intrinsic qualities it should be refused planning permission unless other material considerations indicate otherwise.

7.4 The governments approach to assisting all involved with development in determining what is meant by local distinctiveness is clear and unequivocal in so far as landscapes worthy of a national designation such as a national Park or and Area of Outstanding Natural Beauty are afforded significant protection through the planning process. Thus in PPS 7 we find that in determining proposal for development in, or adjacent such areas, local planning authorities “… should have particular regard to any areas that have been given a statutory designation for their landscape, wildlife or historic qualities where greater priority should be given to restraint of potentially damaging development.’

7.5 This statement demonstrates that: -

From Part 1 above - the presence of escarpments is a defining feature of the landscapes of north Lincolnshire both in terms of the critical role they play in exerting a characterising influence upon those landscapes and because of the views afforded from them.

From Part 2 above – that the Cliff as the most significant topographical feature of the unique Lincoln Edge landscape character area (NLC for Areas 45/47) is clearly identified as a significant landscape feature of regional if not national importance.

From Part 3 above – that an assessment undertaken for local planning purposes in the 1990 identified the Cliff as it outcrops north of Flixborough to the Humber, including that section adjacent the appeal site is a distinctive relief feature of scenic quality. It forms part of the critical landscape capital of the area imparting a distinct sense of place and a character to the area.

From Part 4 above – that strategically, the Humber Head Levels character area is more able to accommodate wind farm development than the Lincolnshire Edge character area. Importantly however, as a point of strategy, wind farm development should not be located such that the apparent height of the Cliff, along its length in the Yorkshire and Humber Region, is compromised. This assessment is supported by guidance in the North Lincolnshire Landscape Character Assessment. It is argued that placing turbines on parts of the Humber Head Level character area such that they are directly adjacent the Cliff has the effect of compromising the existing landscape quality and therefore, the character of the Cliff in this location..

From Part 5 above - that the area has attracted tourists to it for over a century, mainly it would seem because of the nature of the expansive views out from the Cliff and because of the counterpoint between these

dramatic views and the tranquil scenic charm of the area. The area still attracts tourists and this is an important part of the areas character.

7.6 The scarp slope adjacent the application site therefore, forms part of a more substantial landscape feature which is remarkable for its simple linearity running as it does for Grantham in the south to the Humber in the north, a distance of some fifty five miles. The integrity of the appearance of this significant landscape feature, particularly at notable locations along its length (such as north of Scunthorpe) can only be properly protected if the significance of the Cliff as a landscape feature is recognised locally as being part of this much larger regional/national scale feature. This feature is critical to the landscape formed of the Cliff and the quiet vale of the application site set between the wooded escarpment and the River Trent, which the council is seeking to protect.

7.7 It is in the council's opinion important that the Cliff and its characterising influence is given considerable weight locally in terms of the ad hoc applications for development that may occur along its length. It is not in the council's view sustainable to allow the piecemeal erosion of what is undoubtedly a significant landscape feature through the medium of individual planning applications

7.8 In the Council's opinion, the Cliff forms a significant landscape feature of considerable quality that has a strong characterising effect upon the landscape for some distance west of the site. Whilst this characterising influence decreases with distance, the escarpment continues to exert a strong influence upon the composition of views up to 8 km distant (see table 5." Page 79 appellants landscape statement – view Points 6.7 and 8). It remains perhaps the most significant landscape feature because; it provides the horizon in the majority of views from the southwest, northwest and west. In this respect, these hills define the extent of the flatland of part of the Humber Head Levels and speak of a transition in the form of the landscape. These hills therefore, function as an important landscape feature providing an elevated fixed point of

reference in the otherwise relatively flat landscape extending up to the scarp.

7.9 In this respect the review of Local Landscape Designations by Estell Waren for the 2003 Local Plan is important not only for its finding but also because it was undertaken following criteria set out by the then Countryside Commission concerning the assessment of landscape quality. This review identified things of importance such that the Cliff as a landscape feature landscape meets the key criteria established at that time by the Countryside Commission for local designations and that the landscape of the Lincolnshire edge is described as being of "key importance as a landscape resource". The listed attributes of the landscape closely approximate with the concerns expressed by the Council and there is a clear statement that this is an unspoilt landscape despite the presence of locally degrading features such as transmission lines and the Flixborough Stather Industrial Estate.

7.10 Following from this finding and the evidence given above, it is clear that the wooded slope adjacent the application site forms part of a landscape considered to be of high quality and of more than local importance. There is evidence therefore, from a review of the landscape quality by one of the country's foremost landscape assessors therefore, that the Cliff landscape, its wooded slope etc. forms part of a landscape of quality when compared to adjoining landscape areas, in addition it is also described as largely unspoilt. This evidence as to landscape quality is supported by another set of landscape and environmental experts of equal if not greater standing, which suggests that from a strategic perspective the Cliff is sensitive to wind farm development and that greater care should be taken when siting such development.

7.11 In addition, from the west the scarp is visible in easily discernable views. In this respect the scarp is also an important feature in the wider landscape to the west being seen throughout on the horizon; it thus clearly defines the extent of the landscape on the westward approach

to and through North Lincolnshire and is a significant and important feature in most. Whilst setting a wind farm directly against the Cliff would not mask it completely it would change its appearance and make it appear less important as a significant landscape feature in its own right.

8. Conclusion.

8.1 In the council's opinion the true value of this landscape has not been identified in the appellants ES and therefore, the true significance of the environmental impacts of the proposed development upon the escarpment landscape of the Lincolnshire Edge National Landscape Character Area (NLCA) has not been properly assessed.

8.2 Planning Policy Guidance accepts that important landscapes exist outside National designations and that where such a landscape can be demonstrated to exist careful consideration within the context of the Government's stated aim of preserving the countryside for its own sake should be made.

8.3 The council is, therefore, of the opinion that the retention of the existing characteristic appearance of The Cliff as viewed from the east and the composition of views out from it to the west, are matters of such importance as to outweigh other environmental benefits arising from the proposal. In order to protect what it is convinced is relatively unspoilt and distinctive landscape of some rarity, the council refused planning permission for the proposed development of land adjacent and to the west of The Cliff for 7 wind turbines, for the reason reiterated in Part 1, Paragraph 1of this statement. Based on the evidence presented the council invites the appointed inspector to do likewise.

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5. Noise

Town and Country Planning Act 1990

Noise Assessment Report for Proposed Installation of Six Wind Turbines on Land Adjacent to Flixborough Grange Farmhouse, Flixborough, North Lincolnshire

Evidence of

Richard Watson

On Behalf Of

North Lincolnshire Council

Application Ref: WF/2010/1242

Report Reference Number 1230/1

CONTENTS

1. INTRODUCTION

1.1 Blue Tree Acoustics was commissioned by North Lincolnshire Council on 1st September 2011 to carry out an appraisal of the noise evidence submitted in relation to the application WF/2010/1242 – to site six wind turbines and associated equipment on land adjacent to Flixborough Grange Farmhouse, Flixborough.

- It is understood that in October 2007 a noise survey was undertaken by ACIA Engineering Acoustics (hereafter "ACIA")

- An assessment of noise was then done to support a 2009 planning permission application for 7 turbines. This application was refused.

- In February 2010, the decision was appealed at a Public Inquiry, with the inspector dismissing the appeal in April 2010.

- In October 2010, a second application for planning permission was made, accompanied by an ES, with chapter 8 considering the noise impact of 7 turbines.

- In February 2011, the application was considered at committee, with the recommendation being to grant permission, with conditions.

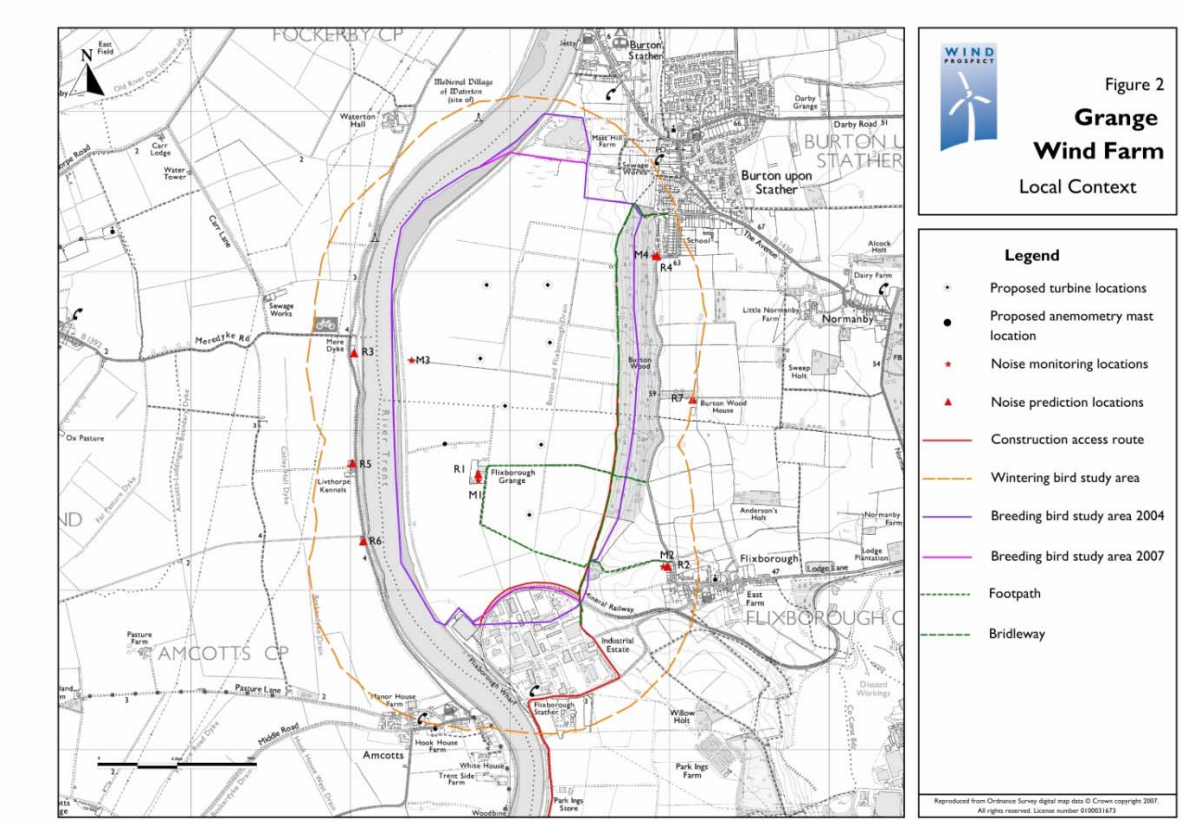
- In April 2011, the local authority refused planning permission for 6 turbines; clearly 7 would also have been refused.

1.2 This review process primarily considers the ACIA noise evidence and April 2011 refusal. However, where necessary, other issues are considered.

2.0 ACIA Engineering Acoustics – Chapter 8 ES

2.1 Chapter 8 of the ES presents an assessment of the future wind turbine noise, undertaken by ACIA Engineering Acoustics. Generally, the assessment follows the ETSU-R-97 standard.

2.2 Figure 2 of the noise chapter is reproduced below.



2.3 This assessment uses background noise level measurements made at four locations (M1 to M4) in the vicinity of the site and wind speed measurements made at one 10m anemometer mast. Noise levels are measured at these locations for between one and two weeks. Some locations have reduced assessment periods due to equipment failures – no particular criticism is made of this, as such lengthy unattended surveys can result in this type of issue. The data gathered at the four monitoring locations are applied to seven residential locations (R1 to R7). A series of graphical figures are presented in Appendix 8.2. A8.2.1(a) to A8.2.1(d) showing the raw $L_{A90(10\ min)}$ values and corresponding wind speeds for that measurement, for the entire

measurement period, for each monitoring location. Each data point is then plotted against wind speed for quiet daytime and night-time periods, with best fit lines applied, in A8.2.2(a) to A8.2.3(d).

2.4 Each best fit line is a prevailing background noise level, which is then used to generate a noise criterion for each assessment property in A8.3.1(a) to A8.3.1(g). These plots also display the calculated noise levels, assuming a particular turbine is used. In each case, the predicted noise levels meet the noise limit during both the quiet daytime and night-time periods.

2.5 There are a number of issues which arise from the assessment, which uses ETSU-R-97 to establish noise limits at each property. These are discussed below.

Noise Monitoring Locations

2.6 Four noise monitoring locations appears to be a reasonable number, with locations intending to represent the residential areas to the Northeast, Southeast and West of the site, with the addition of Flixborough Grange, which is a property located essentially on site.

2.7 The assessment methodology appears to have been to select noise monitoring locations on land which is owned by the developer and to place noise monitoring equipment in locations as close to ideal as possible, but still on the developer-owned land.

2.8 This leads to a situation which is not ideal in two of the four locations.

2.9 M3 to the West of the site appears to be some 390m from R3, 850m from R5 and 1.2km from R6. Whilst it is accepted that R5 is a kennel facility and so dog noise may make measurement there impractical, it seems that there is no reason for the position of M3 other than convenience. It is accepted that security and access are limiting factors in the selection of monitoring locations; however, the M3 location appears to be far too remote to be able to accurately reflect the

noise environment at R3, R5 and R6. The distance issue is compounded by the relative location of local noise sources to M3 and R3, R5 and R6. The River Trent is understood to be a significant noise source in the area, particularly in the quiet day and night-time periods. As can be seen in figure A8.2.4 of the noise chapter appendices, the prevailing wind during the noise monitoring survey was from the South Southwest. Due to the meander of the river, M3 is North, East and South of the river. The residential locations are West of the river. It appears to be the case that the residential properties were upwind from the river, whereas M3 was downwind during much of the survey period. Therefore, there is clearly a likelihood that M3 does not accurately reflect the background noise levels at any of the locations, let alone all three.

2.10 M4 appears to be located within Burton Wood. Clearly, this is not ideal and must have the effect of elevating background noise levels. It is accepted that the background noise level may be representative of the level at the nearest property; however, it will not be representative for properties further to the North and/or East, for which this location is in effect also being used in the assessment. It should be noted that other residential locations would be significantly further away from the noise generated by the trees in the woods, whilst being at a less significant, or insignificant, additional distance from the turbines. It is the ratio between distances that is the primary factor here; clearly, a location say 30m from the woods would have a different environment to a location bordering the woods. Conversely, the relatively small percentage increase in distance from the turbines would provide very little additional attenuation.

2.11 In addition to the above, 8.3.6 of the noise chapter states that the sound level meters were placed 3m from reflective surfaces. ETSU (in section 1.2.1) requires that equipment is located a minimum of 3.5m from reflective surfaces in order to gather free-field data. Clearly, at least one of the monitoring locations is not in accordance with this criterion.

Noise Limits

2.12 It is understood that the Flixborough Grange residents have a financial interest in the development, hence the application of the higher noise limit of 45dB. Elsewhere, the standard ETSU 35dB or 5dB over prevailing background (whichever is higher) for quiet daytime, or 43dB or 5dB over prevailing background (whichever is higher) for night-time, is applied

2.13 The fixed 35dB, 43dB or 45dB limits are independent of the background noise level in the vicinity of the residential properties. The background-related criteria are of course linked to the prevailing background noise levels. In producing the noise limits, a number of steps must be taken and a number of issues must be considered.

2.14 Firstly, ETSU section 1.2.3 requires that noise levels gathered either during periods of rainfall or after periods of rainfall be omitted from the assessment. The noise chapter does not appear to have monitored rainfall during the survey; certainly, no mention is made of any data gathered, or equipment used. Section 8.3.15 does mention that some data has been excluded; however, the lack of detail in this section does not allow one to consider the acceptability of this process. One would expect the rainfall to be measured in the same manner as the wind-speed and the periods and volume of rainfall to be display in a similar manner to wind.

2.15 Once the data is gathered, with inappropriate data excluded, the quite day-time and night-time data sets are gathered and background noise levels plotted against wind speeds. A best-fit is then applied, and this allows the noise criteria to be set.

2.16 If background noise levels are measured as being higher than would actually be the case for each wind speed, then clearly the noise limits would also be higher.

2.17 It is possible that the M3 location does not accurately reflect the environment at R2, R5 and R6. It is likely that M4 overestimates noise levels for many of the properties in this region. It is possible that the unnamed monitoring location(s) within 3.5m of a reflecting *surface would* have more elevated noise levels than would be measured in free-field conditions.

Turbine Noise Calculations

2.18 It is understood that the turbine noise calculations are based on a RePower MM92 but that the development is not committed to using this turbine type.

2.19 The turbine manufacturer does not publish sound power level data for wind speeds below 5m/s, and so the assessment assumed values for these speeds.

2.20 It appears that the noise data does not give information relating to tonality. In section 8.4.7, the noise chapter states that other sites experienced by the author have not been found to be tonal. The implication is that therefore this site will not be tonal. Section 8.2.29 reiterates that the author believes that tonal turbines are rare.

2.21 It is difficult to comment on the accuracy of the sound power level data, partly because some of it is assumed, partly because the manufacturer data does not appear to give tonal information, and partly because the development is not committed to this turbine type in any event.

2.22 The noise chapter states that the turbine noise calculations follow the procedure set out in ISO9613-2. The information presented is insufficient to allow one to check the actual noise calculations. It does appear that in some cases, the noise levels generated by the turbines may be slightly higher than the noise chapter states. Of particular interest is the predicted noise level at R1 – it would appear that the turbine noise level at this location may be slightly higher than 45dB L_{A90} at higher wind speed, and this would exceed the 45dB noise limit.

2.23 As mentioned previously, it is considered possible that background noise levels at properties associated with M3 and M4 may be lower than presented and that therefore the noise impact may be higher than shown.

3.0 Refusal April 2011

3.1 North Lincolnshire Council refused the latest application on the 6th April 2012. The third condition relating to noise is reproduced below:

The applicant has not demonstrated that the proposed wind farm would not lead to unacceptable noise disturbance to nearby residents, contrary to polices DS11 and DS21 of the North Lincolnshire Local Plan and to SPG13, and the Council considers there is potential for noise to impact upon the residential amenity of the residents of Burton upon Stather and other nearby settlements.

3.2 It is considered that the following points support the view of the council:

- Lack of clarity regarding rainfall data, and exclusion of data
- Potential inaccuracies in noise monitoring locations M3 and M4
- Lack of evidence relating to tonality of noise
- No commitment to a particular turbine type, therefore the given assessment is not fixed
- Potential calculated noise levels slightly higher than presented, which may give an exceedance above the R1 criterion.

4.0 SUMMARY and conclusions

4.1 North Lincolnshire Council have in my view correctly refused the application on noise grounds, given the lack of clarity and potential inaccuracies in noise chapter of the ES, as discussed above.

Qualification and Experience

I hold a Bachelor of Engineering degree with honours in Acoustics from Salford University

The degree is specifically related to the study of acoustics and acoustic design including sound insulation, noise radiation, transmission and impact. I have attained Chartered status as an Acoustic Engineer. I am a Member of the Institute of Acoustics, a Member of the Audio Engineering Society and a Member of the Institute of Electrical and Electronics Engineers.

I have over ten years' experience in Acoustic Consultancy practice. I have specialised knowledge and experience in the monitoring, assessment, and control of noise impact. I have experience of acoustic design and assessment of hundreds of environmental and industrial sites across the country. I previously worked for Bickerdike Allen Partners (Architects and Acoustic Consultants) in London and Hepworth Acoustics from 2000 to 2008 where, whilst primarily based in Sheffield, I also spent considerable time setting-up offices in Bristol and Newcastle. I am now a partner with the firm Blue Tree Acoustics. I am responsible for managing many acoustic design projects.

My experience has included carrying out many noise assessments for proposed residential sites in close proximity to existing and proposed industrial and commercial sites, and many noise assessments for industrial and commercial operations at existing and proposed sites throughout the UK. This experience includes assessment of a wide range of commercial operation types.

I have prepared and given expert evidence in public inquiries, licensing hearings, planning appeals, and in court hearings.

I am co-author of 'The Little Red Book of Acoustics' a standard university and Institute of Acoustics Diploma text on acoustic calculation procedures and many UK acoustic standards and guidelines.

6.0 Conclusion

6.1 Any proposed development has to be considered on its specific merits and determined in accordance with the development plan unless material considerations indicate otherwise. It is important that an appropriate planning balance is applied in the decision-making process which fully acknowledges the benefits of a scheme while ensuring unacceptable harm to interests of acknowledged importance does not occur.

6.2 In carrying out the planning balance, in this instance the council believes that the evidence weighs heavily against the proposals and that it was correct to refuse permission.

6.3 Although the council acknowledges the importance of providing renewable energy, and the significant weight that benefit carries, it has balanced all the issues and the conclusion was that the harmful effects significantly outweigh any benefits and that the proposals are contrary to national policy and guidance and to the relevant development plan policies.

6.4 This appeal statement contains chapters which substantiate the reasons for refusal, specifically on landscape and noise and these chapters explain clearly why the council refused permission on each of those grounds and provides the evidence which demonstrates that the harmful impacts would outweigh any benefits claimed by the appellants.

6.5 The Inspector is therefore respectfully requested to dismiss the appeal.