

Planning for Renewable Energy Developments

Draft Interim Planning Document

East Riding of Yorkshire Council

Volume Two: Appendices

April 2009



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Appendix One: The Policy Framework

This appendix gives details of and extracts from the legislative planning framework for renewable energy developments in the East Riding of Yorkshire and provides references to relevant policies and guidelines that this IPD seeks to comply with.

Renewable energy is a rapidly evolving area of policy, and within the wider context of addressing climate change, is seen by government as a key tool in meeting national commitments for reducing greenhouse gas emissions¹.

National Policy

Energy White Paper – Our Energy Future – Creating a Low Carbon Economy (Feb 2003)

The Energy White Paper was an important document in terms of setting out the government's national policy on energy, including renewable energy. The White Paper included four main goals:

- to cut the UK's carbon dioxide emissions by 60% by 2050, with real progress towards this goal by 2020;
- to maintain the reliability of energy supplies;
- to promote competitive markets; and
- to ensure that every home is adequately and affordably heated.

The White Paper also set two targets:

- 10% of the UK's electricity should be supplied by renewable energy by 2010; and
- the capacity of Combined Heat and Power (CHP) in the country should be doubled to 10GW by 2010.

The 2006 Energy Review

The government undertook a review of this policy approach in 2006. The review reiterated the commitment of the government to these goals and recognised two long-term challenges to meeting them:

- the need to tackle climate change, by reducing carbon dioxide emissions from human activity, which continue to grow; and

¹ The Government is committed to meeting the legally binding agreement made through the **Kyoto Protocol** of reducing greenhouse gas emissions by 12.5% of 1990 levels by 2008-2012 and reducing CO2 emissions by 20% of 1990 levels by 2010.

- the need to deliver secure, clean energy at affordable prices, as the UK becomes increasingly dependant on imported energy.

The review identified a number of measures needed to meet these challenges, including changes to the **Renewables Obligation** – a regulatory mechanism which is described in more detail below.

The latest Energy White Paper - '**Meeting the Energy Challenge**' was published in May 2007 and sets out how the government will implement the measures outlined in the 2006 Energy Review, including an Energy Bill programmed for Royal Assent in the summer of 2008. The White Paper re-stated the government's support for renewable energy developments and the importance of removing barriers to acceptable renewable schemes.

The Renewables Obligation

The Renewables Obligation (RO) is the government's primary mechanism for supporting renewable electricity generation. Since April 2000 the Obligation has set targets for licensed electricity suppliers to deliver a specific amount of electricity from eligible renewable sources, with the percentage of their sales required to come from renewables increasing annually. The Obligation has been the subject of a number of reform proposals. The latest consultation on the Renewables Obligation closed on the 6th September 2007.

There are a number of other national government strategies that provide part of the wider framework for renewable energy policy. The **Sustainable Development Strategy, 'Securing the Future' (2005)**, promotes sustainability in all aspects of government policy. It aims to change the way we generate and use energy, in order to reduce the effects of climate change. The **UK Fuel Poverty Strategy (2001)** set out the target that England and Northern Ireland will seek an end to fuel poverty for vulnerable households by 2010. Fuel poverty is caused by the interaction of a number of factors, including the cost of energy. The development of renewable energy can help to address this target by driving down energy costs in the long term.

Sitting beneath these broader governmental strategies, **Planning Policy Statements** (PPSs) provide the planning policy framework to implement government policy. A number of planning policy statements are relevant in considering renewable energy developments.

Planning and Climate Change Supplement to PPS 1, sets out how spatial planning should contribute to reducing greenhouse gas emissions and stabilising climate change, and how it should take into account the unavoidable consequences. Regional and local plans are expected to help shape the framework for energy supply in their area. At the local level,

development plan documents (DPDs) are to set policies on the provision of low carbon and renewable sources of energy. The PPS sets out the following guidance on energy supply policies:

Para 19. 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.

Para 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 PPS22 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 PPS22, consider identifying suitable areas 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; and
- expect a proportion of the energy supply of new development to be secured from decentralised and renewable or low-carbon energy sources.

The guidance sends a strong message to local authorities regarding the need to provide a positive policy framework for the delivery of renewable energy schemes.

PPG 13: Transport (2001) gives specific advice on how the need to travel can be minimised by the optimal location of development. This is particularly relevant in the case of locational decisions for biomass plants, and their location relative to the energy crops they will be consuming.

Planning Policy Statement 22: Renewable Energy

Similar to the approach in the draft PPS on climate change, the guidance advises that policies in regional spatial strategies and local development documents should promote and encourage, rather than restrict, renewable energy development. Renewable energy development should be encouraged across the country - where the technology is viable and environmental, economic and social impacts can be addressed satisfactorily.

Regional Spatial Strategies should include targets for renewable energy generation (the targets for Yorkshire and the Humber are set out above). PPS 22 also states that local authorities may include policies in local development documents requiring a percentage of energy for use in new development to come from on-site renewable sources (a policy issue which is not covered by this guidance).

Planning for Renewable Energy: A Companion Guide to PPS 22 provides technical detail to support the implementation of PPS 22. It discusses the various types of renewable energy generation and how these can be incorporated into developments. It also provides a comprehensive assessment of the planning issues arising from different types of renewable energy development.

Regional Policy

The Regional Spatial Strategy for Yorkshire and the Humber

The Yorkshire and Humber Regional Spatial Strategy was published in May 2008.

Policy S6 relates to the sustainable use of physical resources. Policy S6e states that local authorities should “include policies and proposals in development plans to help to achieve the regional renewable energy capacity targets set out in Policy R12. These should ensure that at least 9.4% of electricity consumed in Yorkshire and the Humber is from renewable sources by 2010 and 22.5% by 2020”.

Policy ENV8 addresses protection and enhancement of biodiversity and geological heritage and seeks to ensure that the natural environment functions as an integrated network of habitats.

Policy ENV5 Energy is the adopted RSS (2008) policy relating specifically to renewable energy generation. It identifies the important contribution and history of the region in providing power for the UK, particularly from several major coal-fired power stations and gas turbines. However it recognises the region also needs to increase its installed renewable energy capacity.

The renewable energy resource in the region has been quantified in a study – the Sub Regional Renewable Energy Assessments and Targets Study (SREAT 2004), which is discussed in more detail below. Policy ENV5 sets out regional and sub-regional capacity targets for 2010 and 2021 for installed grid-connected development. It directs Councils to maximise renewable energy capacity by delivering at least the targets set out.

With respect to Climate Change policy ‘YH2 Climate Change and Resource Use’, expects Councils to help to meet the target set out in the RES to reduce greenhouse gas emissions in the region in 2016 by 20-25% (compared to 1990 levels) with further reductions thereafter by a number including to increase renewable energy capacity. Actions to implement the policy are set out in a Climate Change Action Plan, adopted in 2006.

Regional Energy Infrastructure Strategy for Yorkshire and Humber (February 2007)

The Yorkshire Regional Energy Forum (REF) seeks to ensure that a strategic and integrated approach to energy is adopted within the region. The Forum represents the region’s views on energy issues, and members are drawn from the various energy sectors in the region, key regional agencies, Government departments and energy users. The REF has commissioned a series of regional energy papers and reports, with funding support from the Department for Trade and Industry, Government Office for Yorkshire and the Humber, Yorkshire Forward and the Yorkshire and Humber Assembly.

The Regional Energy Infrastructure Strategy is an action plan drawn up by the Regional Energy Forum, and identifies specific actions needed to meet the regional targets for 2010. The Strategy promotes, amongst other developments:

- An extensive regional bioenergy infrastructure that includes the widespread production and use of biomass and biofuels; and
- Prevalence of CHP and community energy schemes in urban and rural renewal programmes.

The Regional Economic Strategy for Yorkshire and Humber 2006 – 2015

Fostering economic growth must be accompanied by actions to bolster energy security and reduce dependency on fossil fuels, increase energy efficiency and reduce greenhouse gas emissions – for example through more renewable energy developments and higher rates of biomass co-firing in power stations. As a region that is relatively vulnerable to rises in oil prices, encouraging

radically more efficient use of transport and energy, alternatives such as renewable energy, is a vital part of the region's economic strategy.

Sub Regional Energy Targets

In 2002 the Government Office for Yorkshire and The Humber (GOYH) appointed AEA Technology plc to undertake an assessment of the region's capacity to generate electricity from renewable sources, and to set regional and sub-regional generation targets for 2010 and 2021. This assessment was published in the summer 2002 and provided a comprehensive review of renewable energy capacity and the potential for growth within the region.

North Yorkshire and the Humber were the two sub-regions identified as being able to make the largest contribution towards the overall regional renewable targets. The recommendations were based on estimates of the "*practicable resource potential*" of various renewable energy technologies within the region. This 'practicable resource potential' was based on an assessment of technical merits, accessibility of land suitable for these technologies and various environmental, economic and societal constraints. Limited attention was paid to economic factors – given the difficulty in forecasting market conditions at that point in time. The authors concluded that biomass-fired power generation and onshore wind energy would be the preferred technologies for delivering the regional renewable energy targets.

The work undertaken in the 2002 study was refined further in the 2004 Sub-Regional Renewable Energy Assessment and Targets study (SREAT, 2004), undertaken by AEA Technology and Gillespies. This provided more detailed assessment, targets and appropriate development criteria at the sub-regional and local level. The targets in policy ENV5 of the 2008 RSS have been based on this further study. The findings of the SREAT 2004 as to potential capacity and constraints are reproduced in this guidance where relevant.

Local Policy

A number of 'saved' Joint Structure Plan policies will impact on the assessment of renewable energy developments. These include:

- Policy ENV4 - integrity of strategic habitat corridors along the River Derwent, River Hull, Humber estuary and the coastline;
- Policy SP4 - protection of the distinctive character of the Yorkshire Wolds, Jurassic Hills, Vale of York, Holderness, Humber Estuary and Ouse and Trent Levels' Regional Landscape Character Areas.

The Government has issued a Direction which lists those policies from the Joint Structure Plan that are `saved` beyond 28 June 2008. The two policies listed above are `saved`.

In a similar manner to the JSP, a number of other policies in the Local Plans will also impact on the assessment of renewable energy developments:

- Beverley Borough Local Plan - Policy E8 relates to the importance of preserving views of the Urban Centre of Beverley.
- Boothferry Borough Local Plan - Policy E10 relates to the conservation of `Areas Of High Landscape Value` in the local area.
- East Yorkshire Borough Wide Local Plan - Policy EN1 outlines development limits for the siting, design and landscaping of any future developments proposals within the local area. Policy R4 provides guidance on the preservation of recreational open space. Policy En7 outlines the importance of urban open space and highlights that any development would have to safeguard the essentially open character of the surrounding area.
- Holderness District Wide Local Plan - Policy G3 relates to general environmental protection within the district. Policy G4 outlines a number of principles to consider for the general protection of Sites of Nature Conservation and Policy G5 outlines the importance of landscape protection.

There are a number of policies in the Local Plans that are specifically related to renewable energy. These are:

- Beverley Borough Local Plan (1996) – Policy In13
- Boothferry Borough Local Plan (1999) – Policies EN72, En73, En73a
- East Yorkshire Borough Wide Local Plan (1997) – Policy EN25, CZ8
- Holderness District Wide Local Plan (1999) – Policy U16, U17, U18, U19 (which refers to the need to meet policies Env5, Env8-9, Env12-17, Env22, Env24, Env28, Env29 and Env31), U20

The Government has issued a Direction which lists those policies from the above Local Plans that are `saved` beyond 27 September 2007, all policies listed above are `saved`.

The list of policies set out above is by no means exhaustive, and the full range of saved policies in the JSP and Local Plans should be considered in preparing proposals for renewable energy developments.

East Riding of Yorkshire Landscape Character Assessment (November 2005)

The purpose of the Landscape Character Assessment (LCA) is to identify and describe the characteristics and features of the East Riding of Yorkshire landscape. The district has been divided into 23 Landscape Character Types and Areas, using the Countryside Agency's Countryside Character Initiative (2002, http://www.countryside.gov.uk/LAR/Landscape/CC/countryside_character.asp). The LCA is used to guide and inform policy development on landscape protection, to inform development control decisions and to provide a baseline for monitoring future change in landscape character. This document has been used to assist in assessing the most appropriate locations within East Riding of Yorkshire for locating wind turbines and biomass plants.

The Humber Management Scheme (May 2006)

The Humber Management Scheme was drawn up because the estuary is a European Marine Site (EMS), it is notified by the Habitats and Birds Directives and is covered (continually or intermittently) by tidal waters.

The Humber Estuary is one of the UK's largest estuaries and is home to a variety of marine and coastal habitats of international importance. The Humber Management Scheme, produced by the Humber Estuary Relevant Authorities Group (HERAG) has been drawn up to secure compliance with international regulations and outlines management activities needed to maintain the high conservation value of the estuary. The management scheme details over 100 actions to ensure the continued favourable condition of the estuary. Conservation objectives for the estuary have been developed and an Action Plan outlined for the Humber Estuary marine site.

In order to maintain the conservation values of the Humber Estuary and compliance with international regulations, it is imperative that any future renewable energy proposals are both sensitive to the variety of marine and coastal habitats found in the estuary and conform to the conservation objectives and marine site Action Plan.

All interest sites of the Humber Estuary, including RAMSAR, SPA and SAC, are relevant to the Humber Management Scheme, even when they occur outside the boundary e.g. estuary birds feeding and roosting away from the estuary.

East Riding of Yorkshire Local Development Framework

The Planning and Compulsory Purchase Act 2004 introduced a new planning framework. Authorities are now required to prepare a Local Development Framework – a folder of documents which together with the Regional Spatial Strategy will form the `statutory development plan` for the East Riding of Yorkshire. The LDF will eventually replace the Joint Structure Plan and four Local Plans. New policies in the Core Strategy and East Riding Policies DPD will replace the renewable energy policies in the JSP and the Local Plans. Sites allocations policies will be included in the Development Sites DPD.

Other Best Practice Guidance

Guidance for Local Authorities on taking forward Renewable Energy Development (NEREG)

This guidance has been produced by the North East Renewable Energy Group (NEREG), which brings together local and central government, the energy industry, environmental organisations and academia, in order to increase understanding, acceptance, and the delivery of renewables within the region.

NEREG has produced an information package, aimed as a user-friendly planning guide for dealing with renewable energy developments at the local planning level. The guidance covers a number of topics, including national and regional policy, local and regional impacts, site selection factors, planning application issues, good practice for consultation and case studies. It provides an overview of PPS22 guidance, who to consult and good practice in local plan approaches.

Further sources of generic information and advice, along with contact details, are provided in Chapter 7: 'Where to go for Further Information and Advice'.

References to Relevant Policies

This section provides references to relevant policies and guidelines that this SPD seeks to comply with:

Bell, S & McIntosh, E. (2001) *Short Rotation Coppice in the Landscape*.
Forestry Commission

DCLG (2006). *PPS25: Development and Flood Risk*

DFT (2007), Circular 02/2007: Planning and the Strategic Road Network

DFT (2003), Circular 01/2003: Safeguarding, Aerodromes, Technical Sites and Military Explosives Storage Areas

East Riding of Yorkshire Council (1996). *Beverley Borough Local Plan*, Policy In13.

http://www.eastriding.gov.uk/planning/pdf/beverley_final/beverley/index.html

East Riding of Yorkshire Council (1997). *East Yorkshire Borough Wide Local Plan*, Policy en25.

http://www.eastriding.gov.uk/planning/pdf/east_yorkshire_final/east_riding/index.html

East Riding of Yorkshire Council (1999). *Boothferry Borough Local Plan*, Policy en72, Policy en73, Policy en73a.

http://www.eastriding.gov.uk/planning/pdf/boothferry_final/east_riding/Folder/index.htm

East Riding of Yorkshire Council (1999). *Holderness District Wide Local Plan*, Policy U16.

<http://www.eastriding.gov.uk/planning/pdf/holderness/index.html>

East Riding of Yorkshire Council (2005). *Joint Structure Plan for Kingston Upon Hull and the East Riding Of Yorkshire*, Policy ENV1, Policy ENV2, Policy ENV3, Policy ENV4, Policy ENV5, Policy ENV6.

http://www.eastriding.gov.uk/az/FACE_CATEGORY_page_PROC?pParentCat=2611&pType=2

HMSO (2004), The Conservation (Natural Habitats, &c.) Regulations 1994, Statutory Instrument 1994 No. 2716

Manning, C. (2006). *Humber Management Scheme*,

<http://www.humberems.co.uk/management.asp>

ODPM (2004). *Planning for Renewable Energy: a Companion Guide to PPS22*

ODPM (2004). *PPS22: Renewable Energy*

ODPM (2005). *Circular 06/05 – Biodiversity and Geological Conservation – Statutory Obligations and their impact within the Planning System*

ODPM (2005). *PPS9: Biodiversity and Geological Conservation*

ODPM (2006). *Planning for Biodiversity and Geological Conservation – A good practice guide*

Renewable Energy Association. *Short Rotation Coppice for Energy Production.*

TNEI Services Ltd (2007) *Onshore Wind Energy Planning Conditions Guidance Note A report for the Renewables Advisory Board and BERR, Renewables Advisory Board*
<http://www.planningrenewables.org.uk/cgi-bin/resource.cgi>

The Working Group on Wind Turbine Noise (1996) *The Assessment and Rating of Noise from Wind Farms*

Yorkshire and Humber Assembly (2004). *Regional Spatial Strategy for Yorkshire and the Humber to 2016, based on Selective Review of RPG 12*

Yorkshire and Humber Assembly (2008). *Regional Spatial Strategy. The Yorkshire and Humber Plan*

Appendix Two: Summary of Key Planning Issues for Renewable Energy Developments

Renewable energy developments may have an effect on a range of environmental, social and economic issues. Those that relate to land use planning are covered in this appendix. All of these issues are important material considerations and will be given equal weight by the local planning authority. Developers must consider how their proposals affect these issues and address any adverse impacts that may arise. It is important, however, that developers do not resolve adverse impacts with respect to one issue, at the expense of another.

Table 1 summarises a number of important planning issues which need to be taken into account in preparing applications for all renewable energy developments. These tables are not exhaustive and many of the negative issues can be mitigated against, and even improved, by planning conditions. The weight of issues will depend on site specific considerations; some issues may have no weight in some circumstances. There are a number of more general considerations that have not been included; including wider economic and environmental benefits.

Table 1: Summary of Planning Issues for Renewable Energy Technologies

	Technology:			
Planning Issue:	Wind	Biomass	Hydro	Photovoltaics
Local Communities and Economy	<p><u>Positive Impacts:</u> Opportunities for tourism – visits to wind farms. Rural diversification: growth in local jobs & economy. Increase in land values – through rental of land to operators.</p> <p><u>Negative Impacts:</u> Impacts on visual amenity & subsequent negative impacts on quiet, leisure-based businesses.</p>	<p><u>Positive Impacts:</u> Economic growth: supply of biomass fuel can secure a long-term income for farmers, agricultural workers, forestry owners and contractors, and transport operators in rural areas. Growth in local jobs - Biomass plants can provide employment for skilled and un-skilled workers. Heat generated can be used by the local community.</p> <p>Multiplier effects on the local economy.</p> <p><u>Negative Impacts:</u> Airborne and water borne emissions from burning fuels - potential health effects on local communities. Potential health effects on workers from dust and mould spores.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Impacts on public health through transmission of diseases, contaminated food sources. Impacts on recreation and public access.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u></p>
Local Amenity	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Noise from wind turbine operation. Shadow flicker and reflected light. Electromagnetic radiation.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Potential effects on local amenity from construction and operational activity – noise, dust, odours from processing,</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Visual impact. Noise from operations.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Aesthetic appearance of solar modules.</p>

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	(Any effects arising from shadow flicker and electromagnetic radiation are rare. Developers are guided to the PPS22 Companion Guide for more advice on dealing with such issues).	light, air quality, emissions to waterways, traffic – both construction and heavy good vehicles carrying fuel stocks/byproducts, employee movements.		
Landscape and Visual Impacts	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Visual impacts, both locally and on a wider scale. Cumulative visual impacts (of more than one wind farm) Capacity of landscape to absorb development without negative impact. Visual domination or reflected light impacts on local residents. Visual impacts of associated substations and cable route. Visual impacts of substations and transformers.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Visual impacts associated with the biomass plant, including industrial buildings, substations, transformers and chimneystacks. Visual impact of steam plume emissions from chimney.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Visual impacts of substations and transformers.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Visual impacts of solar modules.</p>
Cultural Heritage	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Impacts on Listed Buildings and Conservation Areas. Impacts on unknown archaeology and proximity to known Scheduled Ancient Monuments or listed buildings. Damage to archaeological remains from the construction of turbine foundations, access tracks, substation buildings and other associated structures.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Impacts of the presence of plants, substations and transformers on designated elements of the historic landscape such as Conservation Areas. Damage to archaeological remains from construction.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Impacts on Conservation Areas. Impacts of substations and transformers. Proximity to Listed Buildings and archaeological sites.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Impacts on Listed Buildings and Conservation Areas.</p>

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	Impacts of substations and transformers.			
Biodiversity, Habitats and Nature Conservation	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Impacts on flora and fauna: particularly conservation species such as ground nesting birds through: Direct habitat loss (e.g. for feeding, roosting, breeding etc); Habitat damage (e.g. on site and off site due to hydrology impacts); Impacts as a result of interference with geological or hydrological processes (see below); Disturbance to, displacement of and collision with mobile species such as birds (e.g. for migration, feeding, nesting).</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Airborne and water borne emissions - potential effects on local ecology or conservation. Escape and colonisation of genetically altered fuel species and potential impact on biodiversity of native species. Potential capacity issues on the strategic road network, relating to the transportation of biomass materials on the strategic road network.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Impact on fisheries – changes to hydrology and river systems. Direct habitat loss or damage Impact on recognised nature conservation areas.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u></p>
Soils and Hydrology	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Local hydrology, geology and soils: i.e. interference with geological processes (e.g. slope profile). Interference with hydrological processes (e.g. increased runoff, erosion). Impact on contaminated land. Increase in flood risk due to development.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Impact on water quality from emissions (leachates and oils) from biomass plants.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Impacts on hydrology and hydrogeology. Abundant water supply. River systems. Impact on water quality. Erosion and sedimentation control. Suitable geology.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u></p>
Highways, road networks & rights of ways	<p><u>Positive Impacts:</u> Improvements to local road networks.</p>	<p><u>Positive Impacts:</u> Improvements to local road networks.</p>	<p><u>Positive Impacts:</u> Improvements to local road networks.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u></p>

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	<p><u>Negative Impacts:</u> Capacity of local road infrastructure to accommodate construction traffic – potential congestion, safety issues, impacts on road condition, need for road widening and upgrading. Potential driver distraction from flicker, movement of turbines (although should only be given weight given to similar distractions).</p>	<p><u>Negative Impacts:</u> Traffic movements to and from the biomass plant site in order to transport biomass fuel and subsequent by-products – impact on road capacity, safety, congestion, road condition, potential need for road widening and upgrading. Traffic movements generated by plant workers. Capacity of the local road and rail infrastructure to accommodate biomass traffic.</p>	<p><u>Negative Impacts:</u> Capacity of local road infrastructure to accommodate construction traffic – potential congestion, safety issues, impacts on road condition, need for road widening and upgrading.</p>	
Telecommunications and other networks	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Proximity to roads, railways, power lines and public rights of way. Electromagnetic production and interference with television and broadband networks. Proximity in terms of connection to the National Grid – need for additional infrastructure, cabling. Aeronautical impacts; on radar systems, civil and military flight paths. Impacts on national security in relation to military installations and aviation.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Proximity in terms of connection to the National Grid – need for additional infrastructure, cabling. Availability and suitability of waste disposal facilities (ash residues) in close proximity to plant.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Proximity in terms of connection to the National Grid – need for additional infrastructure, cabling.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Proximity in terms of connection to the National Grid – need for additional infrastructure, cabling.</p>
Siting and Scale Issues	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Landscape capacity to accommodate different scales of</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Size and scale of industrial plant in relation to the local</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Impact of development on local landscape.</p>	<p><u>Positive Impacts:</u></p> <p><u>Negative Impacts:</u> Solar module orientation. Size and scale in relation to</p>

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	development. Separation distances between wind turbines and other sensitive land uses, such as residential dwellings, rights of way and roads.	context, siting in relation to source crops.		energy requirements.
Other	<u>Positive Impacts:</u> <u>Negative Impacts:</u>	<u>Positive Impacts:</u> <u>Negative Impacts:</u> Need for disposal of ash to landfill if no alternative use can be found.	<u>Positive Impacts:</u> <u>Negative Impacts:</u>	<u>Positive Impacts:</u> <u>Negative Impacts:</u>

Appendix Three: Further Guidance for Developers – Applying for Planning Permission for Renewable Energy Developments

This appendix provides further advice for developers on the preparation and submission of planning applications for renewable energy developments. It includes guidance on EIA requirements, considers specific guidance on: siting, design, construction, mitigation, enhancement and compensation, decommissioning and site restoration, and potential conditions on planning applications relating to these aspects of renewable energy developments. An outline of requirements for consultation with local communities and stakeholders is also provided.

Siting and Design

The process of site selection, design and incorporation of mitigation measures should be an iterative process, informed by and responding to an ongoing environmental assessment. The full range of planning issues should be considered alongside the economic and technical requirements – from start to completion of the project.

Technical and economic issues associated with renewable energy development (e.g. for wind farms - the wind resource in the area), and the cost of developing a project, are not material planning considerations and cannot be taken into account in assessing the merits or otherwise, of planning applications.

The following good practice principles should be followed:

- Avoid sensitive soils and vegetation, e.g. peat bogs, heathers, grassland.
- Avoid changes with a negative impact on local hydrology.
- Provide construction and reinstatement method statements on sensitive sites.
- Where possible, integrate the layout of the site and access tracks with the grain of the topography/land patterns.
- Where possible, utilise existing tracks and access points and minimise the length of tracks.
- Protect features such as trees or archaeological remains.
- Reinstatement verges and other disturbed areas with appropriate vegetation.

- Finish surface tracks to blend in with surroundings.
- Reduce the extent and width of tracks after the construction phase where possible.
- Remove tracks following decommissioning and reinstate appropriate vegetation.
- Locate and design ancillary elements/infrastructure in a way that minimises visual clutter.
- Utilise existing landform and vegetative cover to screen structures.
- Site and design the sub-station/ancillary infrastructure to appear as a simple element separated from the main development and characteristic of the receiving landscape.
- Enter into planning obligations to minimise the impact of consequential offsite electricity connections, which could otherwise be severe.

Construction

Construction conditions aim to ensure that issues such as road safety, public safety, avoidance of dust emissions, and impact on water quality are addressed to the satisfaction of the Local Planning Authority, through the production and implementation of Construction Method Statements or Environmental Management Plans. The requirement for such conditions will depend upon the content of the application, as Construction Method Statements and Environmental Management Plans may have already been submitted as part of the application.

Construction conditions may require the reinstatement of land that has been affected by construction activities. Conditions will state the time period in which this reinstatement is to be undertaken, and ensure that it is undertaken in accordance with a reinstatement scheme.

In the interests of residential amenity, a construction condition may be imposed to limit working hours.

EIA and Construction

Where a development has been subject to Environmental Impact Assessment, the details specified for a Construction Method Statement or Environmental Management Plan should include, where relevant, any measures considered by the planning authority required to prevent, reduce or offset any significant adverse effects of construction on the environment. Such

conditions should not be used to defer consideration of any aspect of a development which is likely to have significant environmental effects until a later date.

Mitigation, Enhancement and Compensation

An iterative design process and careful siting, which takes into account local issues and community concerns, should enable mitigation measures to be incorporated within the development site.

However, in some cases it may not be possible to mitigate effects on-site, and secondary mitigation measures may be needed to address residual impacts. Such measures could include off-site planting to screen specific receptors, or providing a compensatory habitat elsewhere, if a loss of habitat is likely as a result of the development. Renewable energy developments present opportunities for enhancing both the development site and land beyond the site boundary, for example through restoration of hedgerows, stone walls and adjacent habitats. They also present opportunities for providing other community benefits, as described in sections 3.5 and 4.5 of Volume One of this guidance.

Consideration should be given to the opportunities for enhancing nature conservation or habitats within a site and/or its surrounds. In some cases compensatory habitat may be considered necessary to mitigate any potential habitat loss arising from a scheme. However, additional gains over and above compensation and mitigation measures should be sought wherever possible. These opportunities should be guided by biodiversity targets in the RSS, the Regional Biodiversity Strategy and the East Riding of Yorkshire Biodiversity Action Plan. Developers will need to work closely with Natural England, the East Riding of Yorkshire Biodiversity Partnership, the North and East Yorkshire Ecological Data Centre and local nature conservation groups to determine what is needed. Biodiversity enhancement should be focussed on strengthening habitat networks and creating sustainable and functioning ecosystems and species populations.

Mitigation, compensation or enhancement proposals should be included as part of the application. If these are not included, conditions may be attached to secure them and to enable the development to proceed.

Decommissioning and Site Restoration

Planning consent will require renewable energy sites to be decommissioned following the conclusion of their working life. Site restoration should be taken into account in the decommissioning process and details of how the site will be restored should be included with the planning application. Restoration

should consider the pre-development characteristics of the site and the landscape and nature conservation values of the area.

It may be useful to refer to the East Riding Biodiversity Action Plan or other Management Plans (e.g. that prepared for the Humber Estuary) in order to determine the most appropriate measures to adopt. The lifespan of a wind turbine is generally 25 years, after which the turbine has usually reached the end of its productive life.

Decommissioning conditions will be applied to ensure full and satisfactory restoration of the site, usually to its former use, once the planning permission lifetime has expired. They may also be used to ensure that the restoration of the site, or part of the site, occurs should one or more elements of the development cease to be operational for a given period of time, prior to the cessation of planning permission. It is important that all restoration and reinstatement work is carried out in accordance with a scheme approved in writing by the Local Planning Authority. This scheme can either be requested within the condition, or submitted as part of the planning application. This ensures the specific details of the decommissioning work are outlined and agreed prior to the works being carried out. A date by which the required works are to be completed will be specified.

Environmental Impact Assessment

Environmental Impact Assessment (EIA) is a systematic procedure by which information about the scope and likely environmental impacts of a proposed development are assessed and presented to the Local Planning Authority, relevant stakeholders and the public, in order to inform the decision on whether the development should be granted planning permission.

The requirement for an EIA is governed by European legislation (European Directive 85/33/EEC as amended by 97/11/EC). Criteria for establishing the need for an EIA are set out in Schedules 1 and 2 of the Town and Country Planning (Assessment of Environmental Effects) (England and Wales) Regulations 1999 (Environmental Impact Assessment Regulations (SI No. 293).

Exceptionally, an informal EIA, presented as an Environmental Statement, may be requested by the Local Planning Authority. Such a statement may include an assessment of the landscape, visual, ecological, transportation, amenity, and safety impacts, unless otherwise stated.

Developers are advised to contact East Riding of Yorkshire Council at an early stage to discuss whether a formal or informal EIA is required, as there

are formal procedures to determine the need for, and scope of, an Environmental Statement, as part of the planning application. Early discussion with East Riding of Yorkshire Council will also help to establish any necessary mitigation measures and where appropriate, revisions to the proposal, and potential planning conditions.

East Riding of Yorkshire Council recommends that developers follow the good practice guidance contained in 'Environmental Impact Assessment: A guide to good practice and procedures: A Consultation Paper' (DCLG, June 2006)

Wind Turbines

Wind turbines are developments which are listed under Schedule 2.3(i) of the EIA Regulations. Local planning authorities are required to screen applications for the need for EIA where the development involves the installation of 2 or more turbines, or the hub height of any turbine or height of any other structure exceeds 15 metres (PPS 22).

Biomass Plants

This type of development is likely to come under either of the two categories listed under Section 3, "Energy Industry", of Schedule 2t:

- Industrial installations for the production of electricity, steam and hot water, where the development exceeds 0.5 hectare; and,
- Industrial installations for carrying gas, steam and hot water, where the area of works exceeds 1 hectare.

Short Rotation Coppice (SRC) planting falls within the scope of the Environmental Impact Assessment Regulations for Forestry, thus any SRC schemes will be required to obtain consent from the Forestry Commission.

It is also possible that where a development will process waste it could also fall under Schedule 2.11(c) to the Regulations (PPS 22).

Photovoltaics

The EIA Regulations 1999 do not specifically include solar energy systems in Schedule 1 or 2. However large, industrial scale developments (producing over 0.5MW of electricity) are listed in Schedule 2 and would therefore require a Screening Opinion. These however, are rare in the UK. Domestic or small-scale systems are not covered by Schedule 1 or 2 and are therefore not likely to require an EIA (PPS 22).

Consultation with Stakeholders and Communities

The Planning and Compulsory Purchase Act 2004 requires all local planning authorities to prepare a Statement of Community Involvement (SCI). East Riding of Yorkshire Council's Statement of Community Involvement was adopted in March 2007 and outlines the Council's intended approach to involving partners, interested parties and the community in the planning process. Developers should consider the procedures and arrangements for community involvement outlined in the SCI when submitting planning applications for renewable energy developments.

The consultation process aims to maximise opportunities for local communities to be informed, have their concerns considered and to strengthen community involvement in the planning system. "Planning for Renewable Energy: A Companion Guide to PPS22" indicates the importance of community involvement (at para 2.11):

"It can improve understanding of the issues facing developers, local communities, stakeholders and the local authority, which can help to reduce conflict. It can foster acceptance of new technologies and may lead to community investment in a proposed scheme, not only in financial but also in stewardship terms"

Developers should consult *statutory consultees* such as Government Agencies and local authorities at an early stage. Ideally, initial consultation should take place during the site selection exercise. The production of an Environmental Scoping Report can act as a facilitator for this process. It may be helpful to establish working groups for large-scale proposals, in order to enable the developer's technical experts and the relevant statutory consultee to discuss and explore specific issues and uncertainties.

Non-statutory consultees (those people who represent organisations, at a national, regional or local level, whose support of, or opposition to, a development would be significant) should also receive early and continuous consultation by the developer throughout the planning process.

Developers should engage with *members of the community* and provide evidence of the methods used, feedback received and evidence of how this community input has been reflected in the scheme, with the planning application. There are a number of techniques that can be used in community consultation; ranging from exhibitions, open days, workshops, public notices, leaflets, briefing packs, public meetings and presentations organised by the developer. One option is to set up a Community Liaison Group with a representative sample of local stakeholders, in order to discuss issues at the

pre and post application stages. Such on-going discussions can be particularly important at the construction stage, and provide an avenue to address any particular concerns the community might have about the impacts of construction activity. Such a mechanism may also be useful for long term monitoring of the development, which may be required by conditions of the planning permission.

Again, developers must ensure that appropriate consultation with community members commences early on, and continues throughout the development process. Renewable energy projects are relatively new in the UK, and most people will have little awareness of the visual appearance of a proposal, or the impact it may have on local people and the environment. Early information, as well as quick responses to particular concerns, will help local people to feel informed, and hopefully more confident, about this new development in their area.

Gaining an insight into local concerns early on in the process will also provide an opportunity to identify and mitigate any negative impacts, as well as identifying areas of agreement and community benefit. The developer should provide some basic facts and figures about the form and scale of the specific development and significant potential environmental impacts, as well as the nature of the wider industry and its benefits and possible adverse effects. Communities should not be presented with a finalised scheme at a presentation or a final meeting.

For consultation to be effective, developers should meet the following criteria:

- Identify all the relevant stakeholders.
- Provide stakeholders with the information they require, in a format they understand.
- Be open and honest about what a proposal involves.
- Engage with stakeholders using a variety of techniques.
- Provide feedback and ensure relevant stakeholders are kept informed about progress and outcomes.
- Report on agreed monitoring and agree continual adjustment where monitoring reveals undesirable effects.

Due to the potential significant landscape and visual impacts of wind energy developments, wind energy developers are advised to follow best practice guidance contained within *'The Protocol for Public*

Engagement with proposed Wind Energy Developments in England' produced by the Centre for Sustainable Energy (2007). The Protocol develops a clear process, which puts the principles of public engagement into practical effect for a wind energy development proposal.

Developers should also follow good practice advice contained in:
Summary of recent research on public attitudes to wind development, Section 9, Wind Power in the UK, SDC 2005.
www.sd-commission.org.uk/publications/downloads/Wind_Energy-NovRev2005.pdf

The publication "Short Rotation Coppice for Energy Production – Good Practice Guidelines, includes a helpful section on consultation. This guidance is available from: <http://www.biomassenergycentre.org.uk>.

Appendix Four: Biodiversity, Habitats, Nature and Heritage Conservation

The East Riding has a range of internationally, nationally and locally designated nature conservation sites that are designated and protected. For example, the Humber flats, marshes and coast support internationally important populations of waterfowl and invertebrates, and the Lower Derwent Valley provides a wintering refuge for wildfowl. The chalk of the East Riding's Wolds is the most northerly outcrop in the UK and holds important areas of calcareous grassland, woodland and chalk streams.

It is crucial for any development to take these interests into account, avoiding adverse effects and considering opportunities for enhancement. For international sites, and any features that they support, new schemes need to demonstrate that they will not adversely affect their conservation values.

Schemes should not cause harm to habitats and species *outside* a designated nature conservation site that may adversely affect the integrity of a 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. Developments should seek to support sustainable populations of species and ecological networks that connect designated sites. In the long term with the effects of climate change likely to increase, species and habitats will need to be able to adapt and move to find suitable conditions to survive.

In accordance with the Habitats Regulations 2007 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 projects, on sites or features associated with an international designation. If a likely significant effect is identified, developers are expected to provide relevant information to the Local Planning Authority to enable it to carry out a Habitat Regulations Assessment.

For any development that could have an adverse effect on the integrity of an internationally designated nature conservation site, planning permission will only be granted where there is no alternative solution and there are imperative reasons of overriding public interest, including those of a social or economic nature, for granting permission.

More guidance is contained in *ODPM Circular 06/20058, Circular 06/05 Biodiversity and Geographical Conservation - Statutory Obligations and their impact within the Planning System, PPS 9, PPS 22* and Habitat Regulations Guidance Note 4 on this.

For nationally designated sites, renewable energy developments 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 are clearly outweighed by the environmental, social and economic benefits. More guidance is contained in the documents mentioned above.

For locally designated sites, development sited on or off such sites should not cause significant harm to these nature conservation interests. Similar to the key considerations made for nationally designated sites, 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 are clearly outweighed by the environmental, social and economic benefits.

In addition to nature conservation site designations, there are a number of plant and animal species within England that are subject to special protection under the Habitats Regulations, the Wildlife and Countryside Act 1981 or their own specific legislation (e.g. the Protection of Badgers Act, 1992).

Renewable energy schemes will need to demonstrate that these species are protected from adverse effects through the adoption of appropriate avoidance, mitigation and enhancement measures.

It is also important for developers to consider the effects of development on non-designated sites and species. Government policy seeks to protect and enhance the priority habitats and species identified in the UK Biodiversity Action Plan. A key delivery mechanism for the achievement of these national targets is through local biodiversity action plans. The East Riding of Yorkshire Biodiversity Action Plan identifies habitats and species within the East Riding that are of principal importance for the conservation and enhancement of the area's biodiversity. Many of these habitats and species extend outside protected sites, and this must be given consideration when developing any scheme. If an assessment demonstrates harm, a scheme will only be supported if the need for and benefits of the scheme clearly outweigh the harm - and appropriate avoidance, mitigation, compensation and enhancement measures are incorporated into the proposal.

The Humber Coastal Habitat Management Plan and the Humber Management Scheme together set out the management approach for maintaining habitat and species integrity of the Humber Estuary. These plans should be considered in any development proposals situated within the Humber management area.

Information on biodiversity and nature conservation interests should inform early decisions on site location and design. Map 3 in Appendix Nine provides a broad indication of the international and national sites. Further information should be sought from Natural England, the North and East Yorkshire Ecological Data Centre, the East Riding of Yorkshire Biodiversity Partnership and local nature conservation groups (contact details for the organisations above can be found in the 'Where to go for further advice' section in Volume One of this guidance). In addition, East Riding of Yorkshire Council is currently in the process of developing a set of pre-validation checklists; these will provide guidance to developers on the ecological data requirements for any renewable energy development in the East Riding of Yorkshire.

Effects on biodiversity can take place during the construction, operation or decommissioning phases of a scheme. They can arise from any element of the development including the foundations, access roads, moving turbines – in the case of wind developments, and ancillary buildings. It is vital that the indirect impacts posed by such developments are also considered.

Infrastructure and ancillary development associated with renewable energy installations, including the plant itself, road access, foundations, transformers, substation buildings, fencing and electrical connections can generate a number of environmental impacts on sensitive vegetation, which may be vulnerable in both ecological and landscape terms, and which may not recover easily from construction activity.

Once the habitats and species present at a development site have been identified, developers need to consider the effect of the proposal on these, both alone and in combination with other developments – i.e. cumulative effects. Such effects could cause negative impacts to habitats and species found within, or outside a development site. If adverse effects are identified, appropriate mitigation and enhancement needs to be considered. In some circumstances a scheme might be so damaging that it may not be possible to mitigate, or provide compensation against the effects and therefore alternative schemes should, if possible, be sought.

Environmental Impact Assessment

For schemes where an Environmental Impact Assessment is required, this will be the main tool used to examine in detail the nature conservation interests both on and off site. The methodology used; analysis of data and assessment of impacts should be clearly expressed in the Environmental Statement. If a scheme does not require an EIA, but is in an area affected by such issues, an assessment of impacts should still be carried out and included in the planning statement.

Areas to address include:

- A habitat survey - describing in detail the communities present on the site and highlighting areas of habitats with potentially high nature conservation value.
- Identification of protected and priority habitats and species, including those of local importance.
- Migratory routes of any protected or priority bird/bat species.
- Identification of habitats and species within the general locality.

When carrying out assessment and evaluation, Natural England, local nature conservation bodies and the North and East Yorkshire Ecological Data centre can assist with data collection and interpretation. However this will not replace the need for detailed site surveys to be carried out at the appropriate time of year, and prior to the determination of the planning application. Planning conditions should not be used to defer the carrying out of such surveys or assessments to a later date.

Developers need to ensure they follow national guidance contained in:

- PPS 9 – Biodiversity and Geological Conservation
 - Planning for Biodiversity and Geological Conservation – A good practice guide
 - *Circular 06/05 – Biodiversity and Geological Conservation – Statutory Obligations and their impact within the Planning System*
- All can be found at www.communities.gov.uk

Developers should also follow good practice advice contained in:

- Scoping guidelines for the environmental impacts of projects, Environment Agency, 2002
www.environmentagency.gov.uk/commondata/acrobat/scoping_guidelines.pdf
- Use of a Phase 2 Habitat Survey methodology and National Vegetation Classification survey

Planning conditions can be used to protect habitats and species from the adverse effects of development. While some habitats and species benefit from statutory protection, this protection will not necessarily preclude development from taking place. Planning conditions can be used to control the way in which development is undertaken to ensure compliance with statutory

provisions. For example a condition may prevent an approved activity from taking place during a specific period of the year, for example where breeding birds might be disturbed. Technical details relating to the agreed approach are best included in a separate method statement, with the planning condition requiring this to be implemented. The method statement can subsequently form the basis of a licence application, if required.

Cultural and Historical Heritage

The East Riding of Yorkshire area has a varied historical and architectural heritage, which has played a key part in the development of the area's character, culture and economy.

When scoping and designing schemes consideration needs to be given to potential effects on cultural heritage and the historic environment. Archaeological remains are a finite, vulnerable and non-renewable resource. Once damaged or destroyed, they cannot be replaced². Archaeological remains can be vulnerable to destruction from construction.

Historic heritage designations include Grade I, II and II* listed buildings, conservation areas, registered historic parks or gardens, scheduled ancient monuments, and the registered historic battlefield at Stamford Bridge.

For national designations and settings, planning permission will only be granted where it can be demonstrated that the objectives of the designation of the area will not be compromised by the development, and any significant adverse effects are clearly outweighed by the environmental, social and economic benefits.

Developers are encouraged to contact the East Riding of Yorkshire Council's Conservation Section and the archaeological staff of the Humber Archaeology Partnership at an early stage in the design of a project, to determine the extent of the archaeological value of a site, and any potential impacts on the settings of historic buildings/remains/gardens and the wider landscape. In areas where particular sensitivities are expected, an archaeologist or historic specialist should form part of the design team, and detailed surveys may be required.

Developers should follow the guidance contained in:

- PPG15 Planning and the Historic Environment
- PPG16 Planning and Archaeology

See www.communities.gov.uk

² Nationally important archaeological sites and monuments are protected under the Ancient Monuments and Archaeological Areas Act 1979.

Developers should also follow good practice advice contained in:

- Wind Energy and the Historic Environment, English Heritage 2005,
See www.helm.org.uk

Appendix Five: List of Airfields in and near East Riding

Airfields within East Riding:

Bridlington (private airstrip)
Eddsfield
Full Sutton
Pocklington/Barmby (very active glider site)
Beverley/Linley Hill (private airstrip)
Leconfield
Melrose Farm/Melbourne (private airstrip)
Marton/Hill Farm (private airstrip)
Hull/Burton Constable (private airstrip)
Hull/Humbleton (private airstrip)
Moorlands/Hull (private airstrip)
Garton Field (private airstrip)
Brighton
Hull/Mount Airey/South Cave (private airstrip)
Hollym (private airstrip)
Brough

Airfields within an area approximately 15km North of East Riding:

East Heslerton (private airstrip)

Airfields within an area approximately 15km West of East Riding:

Elvington (museum and active airstrip, ~5km west)
Gillrudding Grange (private airstrip, ~10km west)
Redmoor Farm (private airstrip, less than 1km west)
Sherburn in Elmet (general aviation, ~17km west)
Church Fenton (~16km west)
York/Acaster Malbis (light aircraft, ~12km west)

Airfields within an area approximately 15km South of East Riding:

Thorne (private airstrip, ~6km southwest)
Walton Wood (private airstrip, ~10k southwest)
Thorne/Doncaster (private airstrip, ~5km south)
Sandtoft (~13km south)
Humberside International (~16km south)
Great Limber (private airstrip, ~16km south)
North Coates (~8km south)
Robin Hood Civil International Airport (~19km southwest)

Appendix Six – Sensitivity of Biodiversity Sites to Wind Energy Developments and Biomass Plants

Zone 1: Natural Heritage Sensitivity

Areas of greatest sensitivity to wind and biomass energy development and therefore least opportunity for development. Proposals for energy development in these areas are unlikely to be acceptable. This zone includes many important natural heritage sensitivities, which are considered incompatible with energy development. Including:

- Ramsar Sites
- Special Protection Areas
- Special Areas of Conservation

Zone 2: Natural Heritage Sensitivity

Areas of high sensitivity to renewable energy development, with little opportunity for development other than some very localised sites where limited proposals could be accommodated only if all potential impacts on natural heritage interests were fully explored and mitigated against. This zone includes many landscape and biodiversity interests, which are protected under national legislation and subject to firm planning policy. It includes:

- National Parks
- National Nature Reserves
- Sites of Special Scientific Interest
- Areas of Outstanding Natural Beauty
- Important Bird Areas
- Heritage Coasts
- Green Belt
- Lowland Grazing Marsh
- Grassland Inventory (for biomass)
- Ancient Woodland (for wind farms)
- National Trust Sites (for wind farms)
- National Trails (for wind farms)
- Local Wildlife Sites

- Local Geological Sites

Zone 3: Natural Heritage Sensitivity

Areas with some sensitivity to renewable energy development. Within these areas, there is likely to be scope to accommodate development of an appropriate scale, siting and design and taking regard of cumulative impact.

- Local Nature Reserves
- RSPB Reserves
- Environmentally Sensitive Areas
- Forestry Commission Woodland
- National Inventory of Woodland and Trees
- Woodland Trust Sites
- Community Forests
- Grassland Inventory (for wind farms)
- Ancient Woodland (for biomass)
- National Trust Sites (for biomass)
- National Trails (for biomass)
- Important Areas of Biodiversity (identified under the East Riding of Yorkshire Biodiversity Action Plan and the East Riding of Yorkshire Habitat Survey)

Zone 4: Natural Heritage Sensitivity

Areas with the lowest sensitivity to renewable 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.

Appendix Seven – Sensitivity of Landscape Character Areas to Wind Energy Developments

Large scale wind farm development in areas where such development is not already present will always affect the landscape character, so determining the sensitivity of Landscape Character Areas to this kind of development is an exercise in relative comparison, and prioritisation of key criteria.

Predicting the sensitivity of a landscape character type and its visual sensitivity to the placement of wind farms is a professional judgement. It is based on the existing character of the landscape in question, what makes it a sensitive landscape and how these elements or attributes may be affected by the potential impacts of the wind farm.

There are not many descriptions of access networks within the landscape such as railways, roads and lanes, right of ways networks, patterns and accessibility. There may therefore be additional issues generated by the scale and character of the transport infrastructure required to construct and service any wind farm development, which may alter or detract from the existing landscape character. It is difficult to predict these, as they will vary on a case-by-case basis.

Natural Heritage Sensitivity Zones are based on definitions on p.18-19 in Volume 2 of the Planning for Renewable Energy Targets in Yorkshire and Humber Final Report (December 2004), which refers to Scottish Natural Heritage guidance as a methodology for determining the sensitivity assessment zones.

Definitions of the zones are outlined in appendix 6.

Bellow, each of the landscape character areas, taken from the East Riding Landscape Character Assessment (part of the LDF evidence base) are assessed and classified into a National Heritage Sensitivity Zone.

Type 1: Vale of York: Flat Open Farmland

Characteristics:

- Flat open landscape, sparse tree and woodland cover: may be viewed from long distances.
- Lies on the edge of the county, so considerations of intervisibility through to adjacent Districts to the west are important.
- Medium scale fields, but large farmsteads.

- Linear nucleated villages, which could be used as a reference when considering wind farm layout.
- Some heritage interest in the form of Parkland at Everingham.
- Some detractors in a fragmented landscape, including industrial vertical elements such as pylons: a wind farm development could either fit with these existing urban influences or add to the clutter, site specific investigations of views will be necessary to resolve this.

The Impact of Wind Energy Development:

“The introduction of wind turbines in this character type may affect views as well as introduce uncharacteristic features. However, the ordinary landscape quality reduces that sensitivity, and small scale wind farm development (less than 10 turbines) may offer the opportunity to improve the condition of key characteristics in some locations.” (p.53, ERY LCA)

“Renewable energy development such as wind farms should only be permitted where their location, scale and layout respects landscape pattern and key views into and out of the area.” (p.54, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 3**

Type 2: Vale of York: Open Farmland

Characteristics:

- Low lying, gently undulating landform, extensive views from edge of the Yorkshire Wolds.
- Lies on the edge of the County so considerations of intervisibility through to adjacent districts to the west are important.
- Mix in scale of patterns of field layout and settlements.
- Airfield present.
- Historical and cultural influences present.

The Impact of Wind Energy Development:

“The capacity of the landscape to accept wind farms without detriment to character will depend upon the characteristics of the development and its location. This relatively open undulating landscape would be detrimentally affected if wind turbines were to be located on the higher ground making them

visible in the landscape. The landscape may have medium capacity to accept small scale wind farms at lower elevations to the west, providing they are moderate structures appropriate to the scale of the landscape.” (p.63-4, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 3**

Type 3: Vale of York: River / Canal Corridors

Characteristics:

- Low lying flat flood plain, very small and narrow character area: external influences have a large impact.
- Lies on the edge of the county so considerations of intervisibility through to adjacent districts to the west are important.
- Defined by small-scale lanes and linear settlements: this could be used as a reference if considering wind farm layout.
- Man-made embankments: could act as a screen for the lower infrastructure of wind farms.
- Sense of remoteness and tranquillity: locating associated infrastructure may cause an impact due to the remote and tranquil nature of this landscape, and its high cultural value.
- Natural heritage sensitivity is high with SSSI's and a SAC present.

The Impact of Wind Energy Development:

“Large scale built development in this corridor or immediately adjacent to it would impact on its character.” (p.73, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 4: Humberhead Levels: River Corridors

Characteristics:

- Low lying flat flood plain, very small and narrow character area: external influences have a large impact.
- Lies on the edge of the county so considerations of intervisibility through to adjacent districts to the west are important

- Defined by small-scale lanes and linear settlements, which could be used as a reference when considering wind farm layout.
- Man-made embankments: could act as a screen for the lower infrastructure of wind farms.
- Sense of remoteness and tranquillity: locating associated infrastructure may cause an impact due to the remote and tranquil nature of this landscape, and its high cultural value.
- Past historic references to wind power in the form of windmills in some areas: potential to either complement or detract from the existing situation, depending on the scale of modern wind turbine development.
- Natural heritage sensitivity is high with SSSI's and a SAC present.
- Land use dominated by grassland, some hay meadows, few trees, limited woodland riparian vegetation only, some areas of arable fields, some small scale intimate areas.
- Strong distinctive landscape character with a significant historical cultural value – “the narrow river corridors are at risk from losing their distinctiveness if land use practices change significantly.”

The Impact of Wind Energy Development:

“Built development of any kind will impact upon the rural character and tranquillity of the river corridors which are assessed to be highly sensitive to change.” (p.84, ERY LCA)

“Vertical structure would potentially detract from the flat character and small scale intimate nature of the river corridors and detract from their distinctive characteristic features.” (p.85, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 5: Humberhead Levels: Open Farmland

Characteristics:

- Low lying flat landscape, few trees, open character, so external influences have a large impact.
- Lies on the edge of the county so considerations of intervisibility through to adjacent districts to the west are important.

- Few features, skies dominate views.
- Large scale arable fields.
- Views to existing power stations a reference to energy production: structures of a similar scale to large wind turbines could form a link between landscape elements.
- Some local vertical elements in the form of pylons.
- Low-density settlement patterns.
- Landmarks such as Howden Minster and Wressle Castle need to be considered in views and skylines.
- Landscape pattern contributes to historic pattern, but some fragmentation and diversity of influences in the form of large-scale agricultural buildings, recreational land uses and a railway line exists.
- Landscape is not considered so distinctive and is more diverse and fragmented in areas; wind power could potentially add a new and interesting element to this landscape. Alternatively, it could detract from the tranquilly and character imposed by this lack of features.

The Impact of Wind Energy Development:

“This is an ordinary landscape that contains several detractors including pylons and large scale agricultural buildings. ... However, the introduction of wind turbines to this landscape would have a detrimental impact on the remote rural character of the area even though that impact may not be perceived by those that view the landscape. As a result this character type has medium sensitivity to change as a result of large-scale wind farm development in the more remote areas. However, there may be greater capacity to accommodate small scale wind farm development if appropriately located.” (p.94-95, ERY LCA)

“Where vertical structures are proposed e.g. wind farms, mitigation measures need to consider planting at distance from the turbines and closer to visual receptors. This would be a more effective screening method. Layout should respect landscape pattern and scale.” (p.95, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 3**

Type 6: Humberhead Levels: Wooded Open Farmland

Characteristics:

- Low lying flat landscape, land rising gently to the west and also extensive views from the Yorkshire Wolds to the east.
- Considerations of intervisibility through to adjacent districts are important
- Some local vertical elements in the form of pylons.
- This landscape type appears to have more local enclosure, with scattered woods, some hedgerows, less change in landscape character. There are opportunities for mitigation by screening the lower elements of a wind farm development, allowing for development to take place without adversely affecting the existing landscape character.
- Relatively remote and tranquil, few roads: improvements to roads may impact on character.
- Mix of scales of landscape, some cultural references, “a reasonably strong sense of place”.

The Impact of Wind Energy Development:

“...the area is relatively low lying and only the tallest development would be viewed on the skyline.” (p.104, ERY LCA)

“The area is viewed from the Wolds and the introduction of wind turbines would impact on those views from the neighbouring high quality landscape. However, the area is low lying and may accommodate a limited amount of wind turbines without detriment to landscape character. In general the sensitivity of this landscape to wind farm development is assessed to be medium.” (p.105, ERY LCA)

“Where wind farm development is being considered a variety of mitigation strategies may be needed to reduce impact including off site planting closer to visual receptors than the actual structure. Size, arrangement and location of turbines and associated infrastructure should take account of landscape pattern and potential cumulative impacts. This should be demonstrated when any application is made.” (p.105, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 3**

Type 7: Humberhead Levels: Foulness Open Farmland

Characteristics:

- Flat, open views, stretching as far as the Wolds in the east.

- Very few trees, sparse landscape.
- Large scale rectilinear fields bordered by drainage ditches: this pattern could be used as a reference if considering wind farm layout.
- Some important archaeological sites.

The Impact of Wind Energy Development:

“There may be capacity to accommodate medium scale wind farm development in this area without large detrimental impact on landscape character. Cumulative impacts would need to be considered and detailed assessment of landscape and visual impacts is needed to determine the sensitivity of the landscape to individual proposals.” (p.113, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 4**

Type 8: Humberhead Levels: M62 Corridor Farmland

Characteristics:

- Low lying and flat open views, some areas of large scale fields.
- Very narrow character area: consideration of adjacent areas important.
- Views of and from the motorway, existing urban infrastructure, in the form of M62, railways and canal and commercial development.
- Landmark structures include Howden Minster, Boothferry Bridge and Goole docks.
- Linear features of navigation and roads: potential for visual relationships if a wind farm development was deemed to be appropriate.
- Existing diverse, fragmented landscape with numerous detractors: adding another element could be a landmark reference and create positive perceptions of green energy. Alternatively, it could detract by adding yet another element and increasing the visual clutter.

The Impact of Wind Energy Development:

“Pressure for wind farm development may be restricted in this relatively built up corridor due to the proximity of residential development. Wind farms in the area would potentially be visually intrusive. However, the fragmented character of the corridor and the diversity of activities going on in it means that the landscape is less sensitive to change as a result of wind farms. It is felt that this character type has medium sensitivity and may be able to accommodate single and small-scale wind farms in locations that are remote from residential properties. The cumulative impacts of such developments would need to be considered.” (p.122, ERY LCA)

“Wind farm proposals should respect the scale and pattern of development in the landscape. Turbines seen in context with existing tall structures may be easier to incorporate without detrimental impact to character. However, turbines are moving structures and this should be taken into account. Detailed assessment will be required for individual proposals to determine the sensitivity and capacity of the landscape to specific proposals.” (p.122, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 3**

Type 9: Humberhead Levels: Drained Open Farmland

Characteristics:

- Low lying, flat, open, large-scale landscape, which is preferable for large-scale wind power.
- Intensively farmed, few trees and woodland.
- Is adjacent to and would impact on designated Area of High Landscape Value (the Thorne Moors), designated for both landscape and ecological value.
- Sparse settlement.
- Historic elements of field patterns for strip farming, with some larger open fields.
- Past historic references to wind power in the form of windmills in some areas: potential to either complement or detract from the existing situation, depending on the scale of modern wind turbine development.
- Extensive open views, remote and tranquil.
- High quality, distinct and sensitive landscape, landscape and ecological local designations in certain areas: considered a

valued and distinctive landscape, sensitive to changes in landscape and visual character.

The Impact of Wind Energy Development:

“Wind farm development in this area has the potential to impact on its remote character and the extensive views across and into the area. The introduction of wind turbines on a large scale would alter landscape character. However, the area does not have any landscape designations and its scale is large apart from around villages where smaller scale field systems have survived and tree and hedge cover have remained good. Where development proposals for wind farms in this landscape type are located away from villages there would be restricted close views from residential properties. However, the turbines would be visible in this open landscape which is considered to have medium sensitivity to wind farm development that is of appropriate scale i.e. the number of turbines and height of turbines proposed should be low enough to ensure that although the turbines may be seen on the horizon they would not dominate views across open landscape. However, cumulative impacts also need to be considered and the open nature of the landscape will result in greater visual impact the greater the number of developments. The landscape in this area has potentially high sensitivity to the cumulative impacts of wind farm development due to its very open and remote characteristics.” (p.131, ERY LCA)

“Wind farm proposals need to consider landscape pattern and scale and the potential impact of associated infrastructure. While this area may have some capacity to accommodate a restricted amount of development without substantial adverse effects on landscape character in some locations the cumulative impacts of such developments are likely to be considerable in such an open landscape.” (p.131, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 10: Yorkshire Wolds: Complex Sloping Farmland

Characteristics:

- Diverse sloping landform to the west, with steep sided, incised river valleys: wind farms could potentially be hidden in valleys.
- Extensive views from elevated areas.
- Scale medium to small and intimate: not in keeping with large scale wind farms but perhaps appropriate for smaller scale developments.
- Some narrow, minor roads: may cause problems for construction.

- Existing vegetation - grassland, woodlands and forestry: potential to provide screening.
- Existing built form respects existing high quality landscapes and landforms.
- Historic and cultural value, not suitable for the imposition of a new modern landscape element.
- May affect the setting of some SSSIs and Ancient Woodland.
- Some intensive arable land use on lower rolling slopes.

The Impact of Wind Energy Development:

“The landscape character of the area would be sensitive to any large scale commercial development such as wind farms. However, small domestic turbines located to minimise visual impact and respect landform may be accommodated in certain less sensitive locations. This would need to be assessed on a site by site basis.” (p.143, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 11: Yorkshire Wolds: Jurassic Hills Farmland

Characteristics:

- Area of High Landscape Value, plus some Conservation Areas and SSSIs present.
- Undulating sloping landform.
- High sensitivity to developments that would be viewed against the skyline.
- Views from elevated land over Humberhead levels, River Humber and Humber Bridge: intervisibility is likely to be a concern.
- Strong hedgerow boundaries are useful for enclosure, and for screening lower parts of potential developments.
- Strong distinctive landscape character, small-scale field pattern exists.

The Impact of Wind Energy Development:

“This rising landscape type has high sensitivity to development that would be viewed against the skyline as this would detract from the characteristic landform. New types of development for example wind farms, telecom masts

or large scale buildings, would add to the complexity of the landscape and detract from existing characteristic resulting in potential fragmentation.” (p.153, ERY LCA)

“Wind turbines in this high quality landscape will impact on views, remoteness and add a detractor to the rural landscape. The area has high sensitivity to wind farm development. The area may have limited capacity to accept small scale domestic turbines.” (p.153, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 12: Yorkshire Wolds: Sloping Wooded Farmland

Characteristics:

- Sloping landform of the West Wolds.
- Few public rights of way but a national footpath (The Wolds Way) runs through.
- Arable Wold tops, grazed grasslands and woodland blocks, following contours of the landforms.
- Some parkland present.
- Historical cultural context.
- Steep sided wooded dales.
- Extensive views.
- Little settlement: reduces visual sensitivity.
- Remote and tranquil landscape.
- High quality, few detractors, an intact landscape with a certain level of diversity in crops / vegetation.
- High ecological value due to this diversity.
- Strong sense of place.

The Impact of Wind Energy Development:

“Pylons cross the area north of Brantingham and impact on landscape character. Landscape character in this area is sensitive to vertical elements that would add uncharacteristic features to the sky line, particularly when viewed from low lying areas to the west looking up.

Wind turbines in this area would potentially have high visibility and introduce uncharacteristic features to the attractive and beautiful landscape. The landscape character of this sloping wooded farmland is assessed to have high sensitivity to wind farm development. Single domestic scale turbines may be acceptable in certain locations but the cumulative impact needs consideration.” (p.162, ERY LCA)

“Wind farm development should be avoided where possible in this area as they would impact on views of this high quality landscape and potentially detract from the key characteristics that contribute such as landform, field pattern, land use and woodland cover.” (p.163, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 13: Yorkshire Wolds: Open High Rolling Farmland

Characteristics:

- Elevated rolling landform, with extensive views over Holderness and to the North Sea at Flamboroughead: relatively featureless and not considered suitable for wind farms.
- Area of High Landscape Value.
- Large-scale landscape.
- Woodlands are not characteristic of this landscape.
- Chalk geology and lack of water means biomass crops are not ecologically characteristic of the area.
- Sparsely populated, very few public rights of way.
- Large scale rectilinear fields with arable crops: reduces landscape sensitivity.
- Few trees present.
- Some historic cultural influences such as field patterns, which would be visually lost during growth of biomass crops.
- Landmark feature - Dalton Church spire.

The Impact of Wind Energy Development:

“There are extensive views across the landscape which is relatively featureless. Adding structures such as wind turbines would introduce uncharacteristic features to the Wolds. The impact of this can already be seen on a smaller scale where telecom masts have been installed. Add to this the

fact that wind turbines combine movement and the potential impact increases. The landform would facilitate long distance views of development thus extending the potential visual impact.

This character type has high sensitivity to wind farm development as a result of its openness and attractiveness. Wind turbines would potentially be seen from great distances and would add to the detrimental impact of the few communications masts and pylons that already impact on landscape. Vertical skyline features are not characteristic and would be a detractor in the rolling, open agricultural landscape.” (p.175, ERY LCA)

“Wind turbines and other infrastructure that adds vertical features that will be prominent should be avoided.” (p.175, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 14: Yorkshire Wolds: Central Dissected Plateau

Characteristics:

- Lies on the edge of the county so considerations of intervisibility through to adjacent districts are important.
- Rolling elevated landform, dissected by occasional steep sided dales.
- Large scale fields.
- Intensive arable production on rolling tops.
- Historic Parks and Gardens present.
- Area of High Landscape Value.
- High bio-diversity grasslands, due to calcareous geology.
- Extensive views.
- Strong distinctive landscape character, high quality, highly sensitive.

The Impact of Wind Energy Development:

“This high quality landscape with extensive views and diverse characteristics is highly sensitive to development that would alter views or characteristics.

Wind turbines are very visible structures in the landscape and when located on elevated land their visibility is increased. There are extensive views across the character type and very few detractors or features. The introduction of wind turbines as a feature of the landscape would adversely impact on the

featureless and open characteristic. The sparsely settled characteristic and remoteness of the character type would also be affected. Therefore this character type is assessed to have high sensitivity to wind farm development and a low capacity to accommodate such development. Small-scale single turbines that relate to existing settlement or isolated farmstead may be accommodated in some locations. Individual detailed assessment would be required for each proposal. The potential cumulative impact of single turbine development needs to be considered.” (p.184-185, ERY LCA)

“Avoid the introduction of vertical structure to the landscape such as wind turbines and communications masts. Where small-scale single domestic turbines are considered avoid skyline locations. Impact on landscape and views should be assessed on a case by case basis and should consider cumulative impacts.” (p.185, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 15: Yorkshire Wolds: Wolds Valley Farmland

Characteristics:

- Narrow Character Area that lies on the edge of the county so considerations of intervisibility through to adjacent districts are important.
- Broad, valley floodplain landscape.
- Hedgerows and woodland a feature: potential to reduce the visual impact of the lower part of a wind farm development.
- Relatively unpopulated: reduces visual sensitivity.
- High historical cultural value: increases sensitivity of landscape character.
- Remote and tranquil nature: reduces visual sensitivity.
- High quality, distinctive landscape.

The Impact of Wind Energy Development:

“Wind turbines in this area would impact on tranquillity and remoteness. They would also add uncharacteristic built features to an attractive landscape. Therefore the area has potentially high sensitivity to wind farm development. The landscape may be able to accommodate single small domestic turbines linked to settlement without substantial adverse impact. However, the cumulative impact of this should be considered.” (p.194, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 16: Holderness: Sloping Farmland

Characteristics:

- Some areas of High Landscape Value present.
- Gently rolling, open landscape, with few trees.
- Views over the open landscape to the east over the River Humber and to the west up to the Wolds.
- Distinctive historic field pattern.
- Horticultural development, adds to the diversity of planting/landscape character/quality.
- Some open landscapes, with views.
- Airfield and development at Leconfield and Kellythorpe.
- Historic and cultural influences in the form of parkland and monuments.
- Small woodland blocks: potential to reduce the visual impact of lower parts of any wind farm development.
- Landmark present: Beverley Minster.
- Some detractors present, including airfield and pylons, but overall a strong sense of character.

The Impact of Wind Energy Development:

“Wind farm development in this area will introduce uncharacteristic elements to the landscape and potentially affect views. However, the landscape is relatively low lying and there may be capacity to site wind turbines without substantial detriment to character in some areas. The landscape is assessed to have medium sensitivity to change in character and views for small-scale wind farm development (i.e. less than 10 turbines). However, medium and large-scale wind farm development would be more difficult to accommodate without substantially altering views for some receptors and impacting upon quality and scale of this landscape. Therefore the landscape is assessed to have high sensitivity to larger wind farm developments. Proposals would need to consider views of existing land marks such as Beverley Minster and village churches.” (p.204, ERY LCA)

“Small scale wind farm proposals should demonstrate a detailed understanding of the landscape and visual qualities and develop detailed mitigation measures to deal with any impacts that may result from development. Cumulative impacts also need to be considered.

Domestic turbines associated with existing development may be accommodated without detriment to character providing they are appropriately located to avoid impact on views of landmarks in the area.” (p.204, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 3**

Type 17: Holderness: Farmed Urban Fringe

Characteristics:

- Gently undulating, flat landform.
- Some woodland present.
- Diverse uses, includes strong urban influences.
- Residential urban fringe influences the landscape, and creates fragmentation.
- Neglected appearance with reference to some hedgerows / field boundaries.
- Enclosed character.
- Mixed field size and pattern.
- Some Conservation Areas present.

The Impact of Wind Energy Development:

“The area has high sensitivity to wind farm development due to the proximity of residential properties and land that is in recreational use. In addition wind turbines in this area would reduce the openness of the space between settlements and impact upon the character of the strategic gap. However, there may be opportunities to locate single small turbines in industrial areas without substantial adverse landscape impact.” (p.213, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 18: Holderness: Low Lying Drained Farmland

Characteristics:

- Narrow Character Area, lies on the edge of the county so considerations of intervisibility through to adjacent districts are important.
- Flat, low lying floodplain. Water is a major feature in the landscape in the form of drains, river courses, numerous ditches, open water bodies, fens and marshland.
- Some area of High Landscape Value.
- Few trees, some Carr woodland is a feature.
- Some SSSIs present, linked to water bodies.
- Open landscape.
- Tranquil landscape with sparse settlement: reduces visual sensitivity in terms of viewers but makes the landscape character more sensitive to the introduction of movement from wind turbines.
- Good, to high quality, landscape.

The Impact of Wind Energy Development:

“The open low lying landscape has potentially high sensitivity to wind farm development. However, there may be circumstances where the sensitivity of the landscape to wind turbines is reduced to medium. This would depend upon the height, the number and location of turbines. The recreation and tourism value of the corridor may also be affected by wind farm development.”
(p.225, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 19: Holderness: Open Farmland

Characteristics:

- Gently undulating topography.
- Large flat, open landscape, predominantly arable.
- Few trees present.
- Some areas with historic, irregular field patterns.
- Some historical, cultural and vernacular elements, including Conservation Areas present.
- Churches are a prominent feature on the skylines.

- One wind farm at Out Newton already in existence.
- Landscape is distinctive in areas, with a good sense of place in villages.

The Impact of Wind Energy Development:

“Wind turbines in this area may impact on views and will add uncharacteristic vertical elements. However, the quality of the landscape is assessed to be ordinary to good overall and this character type has medium sensitivity to development of wind farms generally. Detailed assessment to confirm this would be required for individual proposals. The area would be sensitive to the cumulative impacts of wind farm development and the scale of development should reflect the scale of the landscape and landscape pattern. There are several landmark buildings in the landscape type and views of these are sensitive to development that would interrupt those important views.” (p.235, ERY LCA)

“Wind farm proposals will need to be considered landscape scale and pattern and will only be acceptable in some locations in this character type. Mitigation to screen views of proposed turbines would need to be located close to the receptor to be effective.” (p.236, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 3**

Type 20: Holderness: Coastal Farmland

Characteristics:

- Narrow Character Area, lies on the edge of the county and the coast.
- Flat to gently undulating landform.
- In some areas there are very few public rights of ways, reducing visual sensitivity; others are populated by tourists in the form of caravan sites, increasing visual sensitivity.
- Several ecological SSSIs present, very localised rare habitats.
- Sparse tree cover.
- Very exposed and open landscape, potentially viewed from long distances, with the sea as a backdrop.
- Conservation Areas present.

- Some historic, small scale field patterns with some large-scale agricultural land.
- Mixed strength of character and ordinary quality.

The Impact of Wind Energy Development:

“Wind farm development close to the coast would be highly visible and impact on the character of the coastline. Rapid coastal erosion in this area will mean that pressure for development is likely to be set back from the coast. This ordinary quality landscape does have the capacity to accept some change as a result of wind farm development that is set back from the coast and located to respect settlement and landscape pattern. Landscape sensitivity to this type of development is assessed to be medium overall. However, it should be recognized there are areas where this would change to high sensitivity, for example close to major resorts.” (p.244-245, ERY LCA)

“Wind farm development in the coastal landscape as it would impact on views. Detailed assessment would be required to assess landscape and visual impacts for individual proposals. Location and design should consider landscape pattern and visual amenity of residents and tourists. Views of the North Sea on the approach roads to major resorts should also be considered. The height of turbines will be a key factor in determining the magnitude of potential impact.” (p.245, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 3**

Type 21: Humber Estuary: Low Lying Drained Farmland

Characteristics:

- Flat, open, very exposed floodplain.
- Low lying flat landscape, few trees present, open character: external influences have a significant impact.
- Lies on the edge of the county so considerations of intervisibility through to adjacent districts are important.
- Extensive views over the Humber estuary to the south and west.
- The sky dominates views.
- Man-made river banks have potential to screen the lower parts of wind farm infrastructure.
- Very large scale intensive arable fields.
- Very sparse tree cover.

- Sparsely populated.
- SSSIs of international importance for birds, so bird strike is a potential issue.
- Historic character.
- Some detractors in the form of the industrial edge of Hull are present.
- Overall, a unique and highly valued character.

The Impact of Wind Energy Development:

“Vertical structures in particular will impact upon the characteristic open and extensive views and the skies that stretch for miles.” (p.254, ERY LCA)

“Wind turbines in this remote open landscape will be highly visible. This has been assessed to be a good to high quality landscape. The introduction of new features such as wind turbines may affect this. However, it is generally felt that low lying areas with sparse settlement have a greater capacity to accept wind farm development than elevated upland areas. The sensitivity of this character type to wind farm development is medium except for Sunk Island where it is assessed to be high.” (p.254-255, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 22: Humber Estuary: Farmed Urban Fringe

Characteristics:

- Flat, open, very exposed floodplain.
- Views of the Humber Bridge and to the south bank.
- Flood banks along the River Hull.
- Very large scale intensive arable fields.
- Sparse tree cover.
- Sparsely populated.
- Buffer zone to development along the northern Humber bank separates developments of Brough and North Ferriby.
- Brough airfield present.
- SSSIs of national and international importance.
- Ordinary quality landscape.

- Fragmented, some industrial/urban development reduces the landscape and visual sensitivity.

The Impact of Wind Energy Development:

“Wind turbines may impact upon important views of the Humber Bridge from this area. However, the quality of the landscape has been assessed to be ordinary and the area already contains a number of detractors. Therefore the area is assessed to have medium sensitivity to wind farm development in landscape terms so long as views of the Humber Bridge are respected and the height of turbines is kept to a minimum. However, the potential impact on international wildlife designations may negate the potential pressure for this type of development in the area. The safety considerations as a result of the presence of the airfield may also reduce potential pressure for this type of development in the area.” (p.262, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Type 23: Humber Estuary: Humber Banks

Characteristics:

- Flat, open, very exposed river and riverbanks, salt marsh.
- Steady flow of traffic along the river meaning many viewers, increasing sensitivity; though a turbine could be considered an iconic feature of the landscape.
- No large scale industrial detractors present.
- Grazed/mown grass, man-made riverbanks, retaining and protecting small areas of intensively managed farmland.
- Extensive views from riverbanks.
- Sparse tree cover: increases visual sensitivity.
- Sparsely populated: reduces visual sensitivity.
- Little access and remoteness: reduces visual sensitivity.
- SSSIs of national and international importance present.

The Impact of Wind Energy Development:

“Wind turbines would add detractors to this tranquil landscape and result in detrimental impact.” (p.268, ERY LCA)

“There are few built structures in this corridor landscape. ... New built structures would impact upon the character of the area, particularly vertical structures that may impact on views across the wide, open river channel and should be avoided.” (p.269, ERY LCA)

Natural Heritage Sensitivity Recommendation: **Zone 2**

Summary Table – Wind Farms

Landscape Character Area	Natural Heritage Sensitivity Zone
Type 1: Vale of York: Flat Open Farmland	3
Type 2: Vale of York: Open Farmland	3
Type 3: Vale of York: River/Canal Corridors	2
Type 4: Humberhead Levels: River Corridors	2
Type 5: Humberhead Levels: Open Farmland	3
Type 6: Humberhead Levels: Wooded Open Farmland	3
Type 7: Humberhead Levels: Foulness Open Farmland	4
Type 8: Humberhead Levels: M62 Corridor Farmland	3
Type 9: Humberhead Levels: Drained Open Farmland	2
Type 10: Yorkshire Wolds: Complex Sloping Farmland	2
Type 11: Yorkshire Wolds: Jurassic Hills Farmland	2
Type 12: Yorkshire Wolds: Sloping Wooded Farmland	2
Type 13: Yorkshire Wolds: Open High Rolling Farmland	2
Type 14: Yorkshire Wolds: Central Dissected Plateau	2
Type 15: Yorkshire Wolds: Wolds Valley Farmland	2
Type 16: Holderness: Sloping Farmland	3
Type 17: Holderness: Farmed Urban Fringe	2
Type 18: Holderness: Low Lying Drained Farmland	2
Type 19: Holderness: Open Farmland	3
Type 20: Holderness: Coastal Farmland	3
Type 21: Humber Estuary: Low Lying Drained Farmland	2
Type 22: Humber Estuary: Farmed Urban Fringe	2
Type 23: Humber Estuary: Humber Banks	2

Appendix Eight - Typical (but not exhaustive) consultees to include in pre and post application engagement for renewable energy projects

Statutory	Non-Statutory	Community
Department for the Environment, Food and Rural Affairs (DEFRA), Department for Communities and Local Government (DCLG), Department of Trade and Industry (DTI), Department for Transport (DfT), English Heritage, Highways Agency, Humberside Airport (turbines within 30km), Natural England, Environment Agency, Health and Safety Executive, Local Planning Authorities (LPA), Ministry of Defence, National Parks Authorities, Regional Development Agencies.	Civil Aviation Authority, Council to Protect Rural England (CPRE), Friends of the Earth, Greenpeace, National Trust, NATS En Route Plc (NERL) ³ , Ramblers Association, Royal Society for the Protection of Birds (RSPB), The Wildlife Trusts, Trade Unions, World Wildlife Fund.	Bat Groups, Badger Groups, Educational Interests, ERA4Wind (East Riding Alliance for Wind), Individuals, Landowners, Local airports and airfields, Local Town and Parish Councils, Local Companies, Local Environmental Groups, Recreational Groups e.g. Tourism Groups, Residents Associations, Women's Institutes, Other local groups that may be affected depending on the location.

³ NATS En Route Plc (NERL) is responsible for the safe and expeditious movement in the en-route phase of flight for aircraft operating in controlled airspace in the UK.

Appendix Nine: Goodwill Payments Position Statement

Goodwill payments are expected provided that they aim to generally achieve improved local well-being, and create environmental, economic and community benefits. The payment must not have an effect on deciding planning decisions or allocations of land for development.

A base figure of £2,000 per megawatt hour (MWh) per year (total theoretical rated capacity, not actual) is proposed as an appropriate entry level standard starting in the calendar year 2009, this figure relates to evidence provided by CPRE⁴. From 2010, the base figure could change in line with preceding 'annual change' figure published for the UK retail price index (all items Jan 1987 = 100) prepared by the Office for National Statistics⁵. Taking this step will allow the goodwill payment to be index-linked with prices, so that developers can predict future budgeting requirements and communities will benefit from consistent buying power. The goodwill payment would remain in effect for the duration that infrastructure remains on the site to address continuing issues of impact on local communities.

The East Riding of Yorkshire Council will administer the fund on behalf of local communities⁶. The Council will charge a management fee of no more than 10% per year, drawn-down against the fund. Any interest payments will be added to the balance of the fund.

The fund can be discharged against a wide range of eligible projects that aim to improve local well-being, and create environmental, economic and community benefits. Expenditure for projects will relate to the development and its impact on local communities. Eligible projects would include but are not limited to energy efficiency and conservation (heat and power), eco-homes, small-scale microgeneration, habitats and wildlife, social and community schemes, and economic regeneration. Where requested in writing, the developer has the right to request a balance held by the Council and outline expenditure.

The impact of a development on local communities will be defined by the Council in agreement with the applicant and will be relevant to the scheme. For example, among other considerations wind farms can have far ranging impacts on visual amenity, landscape and bird flight. Further, biomass plants require the transportation of fuel from suppliers. None of the impacts from these examples are entirely confined to one local settlement or parish. For this reason, the fund could be used more widely than the immediate locality of

⁴ Based on the evidence provided by the Campaign to Protect Rural England, 'Goodwill Payments', October 2008.

⁵ <http://www.statistics.gov.uk/instantfigures.asp>

⁶ The process and budget is managed by Rural Policy and Partnerships.

the development, though it will only be used in areas impacted by the development.

Offers of co-ownership and part-ownership are also welcomed provided that no liabilities fall to local communities, the public sector or Councils.

Appendix Ten: Constraints Maps

The following maps were prepared using GIS (Geographic Information System) techniques.

Objectives:

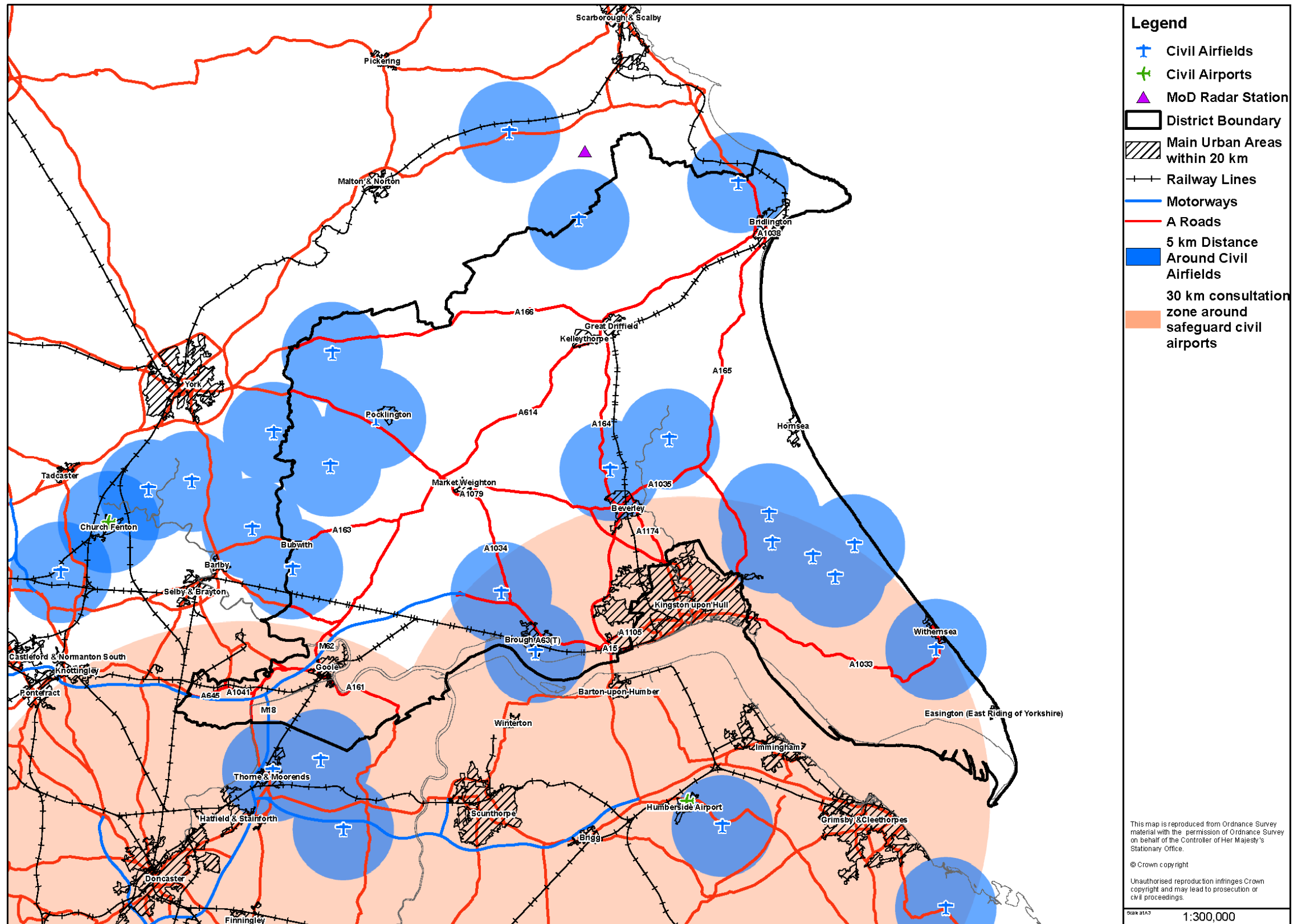
The objectives of the constraint mapping were to:

- Identify areas within the East Riding of Yorkshire that are subject to potential environmental constraints and may be considered inappropriate for renewable energy development because of their environmental sensitivity;
- Identify areas of land within the East Riding of Yorkshire that may potentially have the capacity to accommodate renewable energy developments.

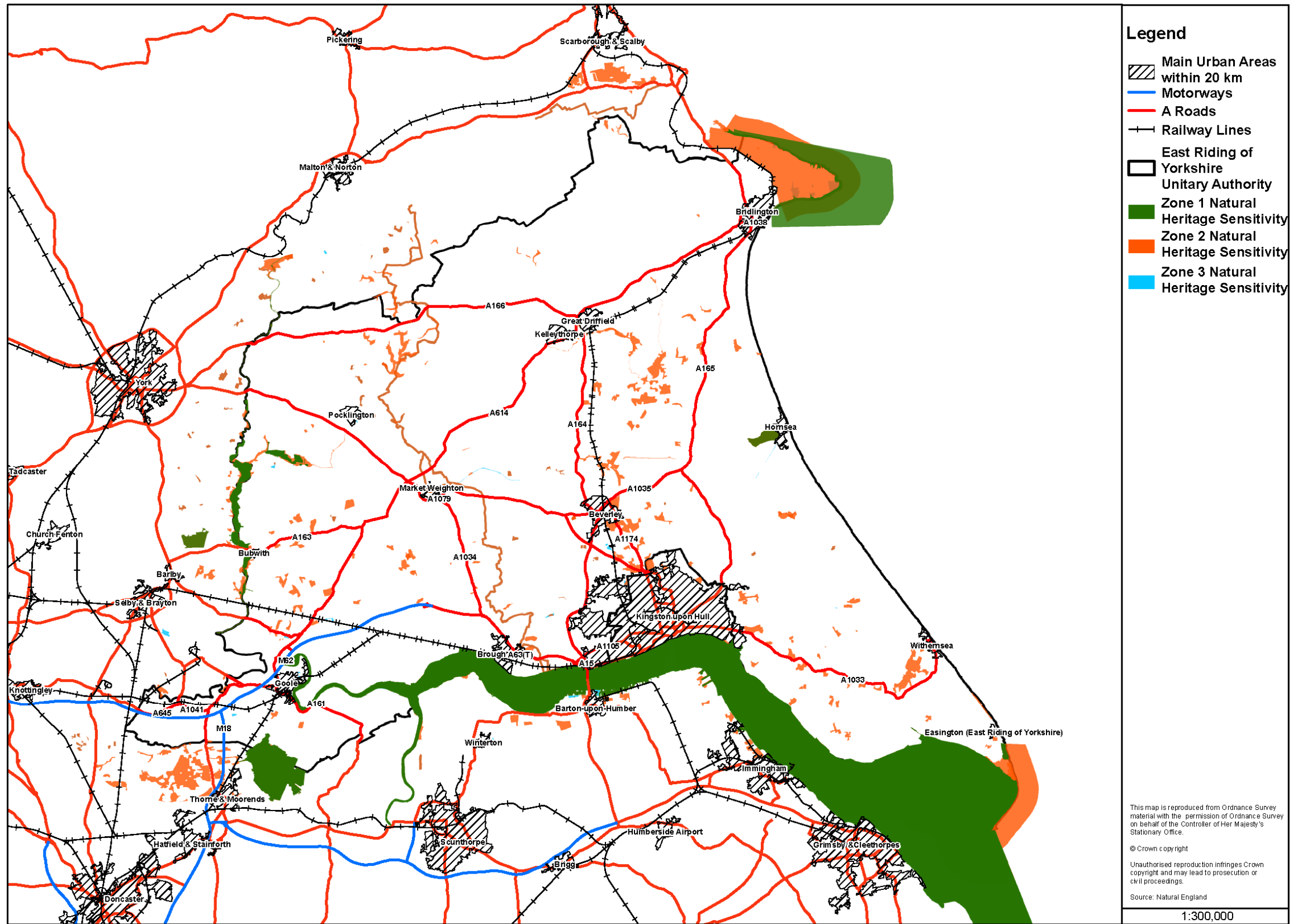
It is important to recognise that a number of the constraints identified may not necessarily impede all development. Similarly, a number of the constraints may be overcome by mitigation measures, in certain circumstances. However these constraints should be identified, as they may influence the appropriateness of bringing land forward for different types of renewable energy development.

These maps are for guidance only and more site specific considerations will need to be taken into account for applications to be assessed.

Map 1: Airfield Constraints



Map 2: Biodiversity and Nature Conservation Constraints to Wind Farm and Biomass Developments



Map 4: Landscape Constraints to Wind Farm Developments

