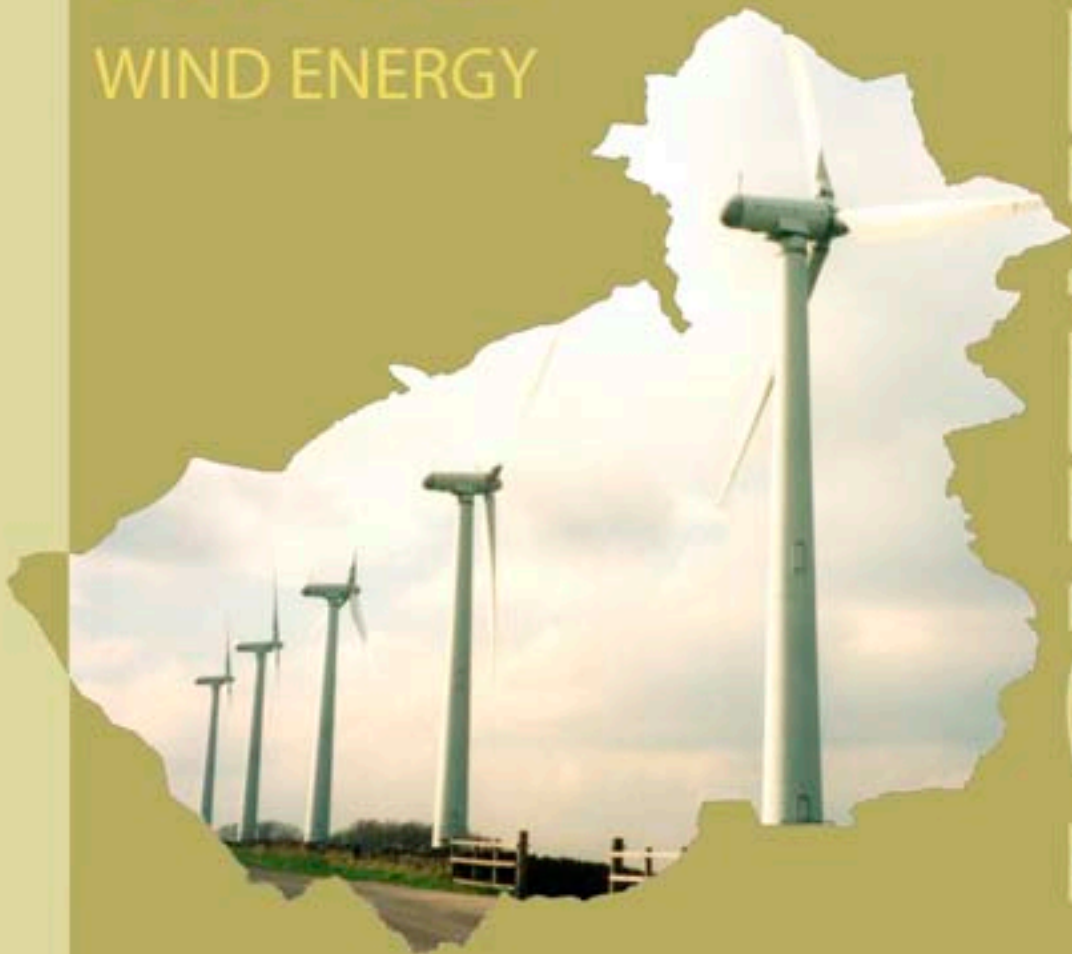


UDP

UNITARY DEVELOPMENT PLAN

SUPPLEMENTARY PLANNING GUIDANCE

WIND ENERGY



WIND ENERGY

PREFACE

The construction of wind turbines to generate electricity is a significant means of meeting national and regional targets for electricity generation from renewable sources but is not without potentially adverse effects on the local environment.

The Council's environmental objectives (see Appendix 15) include supporting and enabling measures to reduce CO2 emissions. The generation of electricity from wind power clearly provides a means of achieving this objective. However, other environmental objectives include the protection of the countryside, in terms both of the amenity and biodiversity that it offers, and the construction of wind turbines, like most other forms of development, may prejudice the achievement of these objectives. Consequently, while the Council promotes a range of CO2 reduction measures, it recognises that these must not in themselves create significant adverse environmental consequences.

In its role as local planning authority the Council has to decide whether or not proposals for wind turbines should be permitted. Its statutory development plan, the Kirklees Unitary Development Plan (UDP), sets out policies to guide decision-making. UDP policies EP7, EP8 and EP8A set out the factors which will be taken into account in reaching decisions which balance the potential positive and negative environmental consequences likely to flow from any proposal.

The purpose of this guidance is to explain in detail what matters will need to be taken into account when an application for the construction of wind turbines is made to the Council. It is intended to assist applicants and also those who might be concerned about such development.

The guidance is based on the Council's current policies and assessment techniques. In line with evolving national and regional policy and guidance on assessment the Council's policies and practices will also change over time and appropriate amendments will be made to this guidance.

SUPPLEMENTARY PLANNING GUIDANCE

WIND ENERGY

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1 National and Regional Policy Context

Government Policy on Renewable Energy

- 1.1 To contribute towards fulfilling international commitments, the UK Government has a target of achieving 10% of electricity generation from renewable sources by 2010. Renewable sources is the term used to cover those continuous energy flows that occur naturally and repeatedly in the environment and produce significantly lower levels of pollutants than conventional sources. However, the proportion of electricity generation from renewables in Great Britain is at present significantly below this level. In response the Government's policy is to stimulate the development of renewable forms of energy and others with low emissions, wherever they have prospects of being economically attractive and environmentally acceptable. This will contribute towards a diverse, secure and sustainable supply of energy, a reduction in pollution and the development of an industry capable of generating jobs in rural areas.
- 1.2 The lead on energy policy matters lies with the Department of Trade and Industry, while the Department of the Environment, Transport and the Regions has responsibility for providing planning guidance for renewable energy. By offering advice, supporting research, subsidising individual projects and exercising control over the energy market, government has a significant influence on proposals coming forward for planning consideration. Appendix 1 has further information on the relevant mechanisms through which the government offers support for renewable energy.

DETR Planning Policy Guidance Note on Renewable Energy (PPG 22)

- 1.3 PPG 22 sets out the government's policies on planning in relation to renewable energy and was issued in 1993. The guidance recognises that development to exploit renewable energy resources will almost always have some local environmental effects which must be weighed carefully against a continuing commitment to policies for protecting the environment. It recommends that proposals should cause the minimum harm to the countryside and that every effort should be made to ameliorate adverse effects. Within designated areas the desire to develop renewable energy requires to be balanced with the need to take full account of the specific features or qualities which justified designation. PPG 22 recognises that renewable energy projects may require the imposition of conditions which anticipate the impact of a proposal.

The Regional Context

- 1.4 The regional context encompasses informal co-operation within the region, regional energy planning studies carried out by consultants in partnership with the DTI (see Appendix 1) and regional planning guidance (RPG) issued by the Secretary of State for the Environment, Transport and the Regions.

- 1.5 Draft RPG for Yorkshire and Humberside, published in October 1999 by the Regional Assembly, states that development plans should include measures to assist in achieving the UK target of 10% of energy generation from renewable sources. The Panel Report of October 2000 considers that ‘development plans should be encouraged to identify the environmental criteria that will be applied in determining the acceptability of any renewable energy proposals, with supplementary design guidance as necessary’. It is recommended that local authorities should not consider identifying areas of search in their development plans until the regional overview has been completed and consistent criteria established.

Sub-Regional Guidance from Standing Conference of South Pennine Authorities (SCOSPA)

- 1.6 Member authorities of SCOSPA (a consortium of local authorities, including Kirklees, and partner organisations), have produced guidance which aims to introduce an element of policy consistency on wind power and offers a sub-regional overview. Here there is an emphasis on the cumulative impact of proposals, an issue which is not directly addressed in PPG 22. The local authorities concerned have also signed a ‘Memorandum of Understanding’. Both documents are reproduced in Appendix 2. They have provided a context for the policies on wind power in the Kirklees Unitary Development Plan.

2 Information Required in Support of Proposals for Wind Turbines

Wind Resource Assessment

- 2.1 Available information about the wind resource in Kirklees is set out in Appendix 3. To enable proper assessment by the Council, applicants should obtain on-site wind speed and direction data to submit with a planning application. This may involve the erection of an anemometer mast to provide continuous readings over a period not less than 6 months. Computer generated grid square wind speed information, supplied by ETSU, will not in itself have sufficient local area detail to support a planning application. Applicants should also indicate the energy rating of the proposed turbines and projected energy output based on wind speed data.
- 2.2 Applicants should note that the erection of an anemometer mast will require a separate planning permission, (which is likely to be temporary) and will be subject to an assessment of its impact. There may be a requirement to start collecting baseline data on habitats surrounding the mast and to carry out appropriate restoration once the mast is removed. The granting of planning permission for an anemometer mast does not indicate that a wind power development will be acceptable at that location.
- 2.3 Applications will need to identify the extent of the land to be occupied by turbines; the number, height and siting of the turbines; and ancillary features including access tracks, perimeter fencing, borrow pits, power transmission equipment and its housing, temporary construction compounds, parking areas and means of connection to the electricity grid. (Guidance on grid connections is given in Appendix 4.)

Environmental Impact Assessment

- 2.4 To enable full consideration to be given to the implications of siting wind turbines in a particular location, under the EC's Environmental Impact Assessment Directive, applicants can be asked to compile detailed information about the likely main environmental effects of a proposal. The information compiled by the developer is known as an 'Environmental Statement' (ES) and will be taken into account by the Council in deciding whether or not to permit the development.
- 2.5 The carrying out of development to provide installations for the harnessing of wind power for energy production (wind farms) is a schedule 2 development under the Environmental Assessment Regulations of 1999, provided it meets one or more of the criteria set out below.
- (i) The development involves the installation of more than 2 turbines; or
 - (ii) the hub height of any turbine or height of any structure exceeds 15 metres.
- This means that the Council needs to decide using established criteria whether or not an EIA is required.
- 2.6 A thorough scoping exercise must be employed to ensure that an ES will focus on the appropriate issues, including the availability of alternative solutions and the scope for mitigating measures where necessary, and give them proper consideration. Scoping needs to be agreed with the Council.
- 2.7 In producing the ES, the following factors need to be taken into account.
- Data sources used should be as up to date as possible and sole Reliance on documentary records will not be appropriate in most cases.
 - Comprehensive information needs to be gathered including Ornithological, botanical, landscape and archaeological field surveys. These will need to be carefully timetabled where appropriate fieldwork is subject to seasonal constraints.
 - Qualified staff with appropriate expertise need to be employed Eg Members of the Institute of Ecology and Environment Management, Members of the Institute of Acoustics. Local communities and voluntary bodies should also be consulted for their knowledge of, for example, wildlife habitats.
 - Full consideration of the impact of the proposal on recreation.
 - The publication 'Wind farm development and nature conservation Produced by English Nature, WWF, RSPB and the British Wind Energy Association, includes a checklist of possible impacts of relevance to nature conservation, which is reproduced in Appendix 5 and should be taken into account as part of the ES.
 - Alternative sites should be considered if particularly vulnerable habitats or species are discovered.

- 2.8 Should planning permission be granted a method statement will need to be submitted for the period of construction. There will be a need for monitoring during construction and for post project monitoring and review to test and compare actual impacts against those predicted in the ES. The results of these studies (including pre and post development effects on birds) should be made public in order that lessons can be learned and acted upon.

Involvement of the Local Community

- 2.9 Wind turbines have proved to be controversial due to the noise and movement associated with power production in open locations and the need for large quasi-industrial structures to be prominently sited. A study sponsored by the DTI concluded that wind farm developers needed to involve local people at the earliest stages, take into account and address their concerns and ensure that, where possible, the local community benefited from such development. Applicants should therefore seek to engage the local community in participation, with a view to incorporating a degree of community gain. This might take the form of direct benefit from the energy source or a management agreement covering land in the vicinity.

3 Decommissioning

- 3.1 PPG 22 allows the use of conditions on planning permissions to avoid a situation where infrastructure ceases to be used but remains in place in perpetuity. Therefore should a wind power development become non-operational, there will be a requirement that it be removed from the site and full restoration carried out to a standard and character as set out in any planning condition. Full restoration requires the removal of turbine and ancillary structures and tracks and the restoration of appropriate vegetation. The Council may in seeking to ensure such decommissioning works, require a financial bond to be paid as a necessary security measure and will seek appropriate legal agreements with applicants to facilitate this.

- 3.2 As a consequence of the need to secure the removal of unused structures and achieve site restoration, where planning permission is granted for a wind turbine development conditions will be applied based on the following principles:

If any wind turbine ceases to operate for a continuous period of 6 months, it shall be deemed to have been abandoned and should be removed from site within 3 months thereafter.

When a wind farm reaches the end of its operational life, all structures, buildings, plant and access roads will be removed within six months and the area fully restored to a use and condition which are appropriate to its surroundings.

4 Unitary Development Plan Policies

4.1 The Unitary Development Plan (UDP) was adopted in March 1999 and constitutes the statutory development plan for Kirklees. Section 54a of the Town and Country Planning Act 1990 requires that, where an adopted development plan contains relevant policies, an application for planning permission shall be determined in accordance with the plan unless material considerations indicate otherwise.

4.2 Chapter 5 of the UDP contains a section on renewable energy resources. This acknowledges that an increasing proportion of energy used will need to be produced from renewable resources such as sun, wind and water and makes clear that the council aims to assist the utilisation of renewable energy wherever reasonable. UDP policies EP7, EP8 and EP8a relate specifically to wind energy, as it was recognised that the district has sufficiently high average wind speeds to make the establishment of wind turbines a viable possibility. The explanatory text from the written statement is reproduced in Appendix 6. This distinguishes between small turbines, which are dealt with in EP7 and medium and large turbines, which are dealt with in EP8. Assessing whether or not a site is suitable for wind turbines in planning policy terms requires full consideration of a range of other policies in the UDP. Part I of the UDP is a statement of the strategic land use planning policies for the district and policies G2, G4, D1, NE1 and EP1 are particularly relevant and are set out in Appendix 7. Account also needs to be taken of policy M5, which safeguards future mineral reserves.

4.3 Policy EP7 states:

SMALL WIND TURBINES WILL BE PERMITTED PROVIDED THERE WILL BE NO SERIOUS ADVERSE EFFECT ON OCCUPIERS OF ADJOINING LAND OR ON ANY CONSERVATION AREA OR LISTED BUILDING.

4.4 Policy EP8 identifies the broad criteria against which proposals to erect medium and large wind turbines will be evaluated. The policy states:

WIND TURBINES WILL BE PERMITTED PROVIDED THE DEVELOPMENT, INCLUDING ANCILLARY BUILDINGS, ACCESS TRACKS AND CONNECTIONS TO THE ELECTRICITY SUPPLY GRID, WILL NOT CAUSE SERIOUS HARM TO:

- i THE CHARACTER, RECREATIONAL VALUE AND VISUAL AMENITY OF THE GREEN BELT OR LANDSCAPE;
- ii THE CHARACTER, APPEARANCE OR SETTING OF A LISTED BUILDING OR CONSERVATION AREA;
- iii THE AMENITY OF OCCUPIERS OF LAND IN THE VICINITY;
- iv THE ECOLOGY OF THE AREA;
- v AREAS DESIGNATED AT NATIONAL, REGIONAL OR LOCAL LEVEL AS OF NATURE CONSERVATION, SCIENTIFIC OR ARCHAEOLOGICAL INTEREST;
- vi HIGHWAY SAFETY; OR
- vii EXISTING TRANSMITTING OR RECEIVING SYSTEMS BY REASON OF ELECTROMAGNETIC DISTURBANCE

AND PROVIDED SPECIAL REGARD IS PAID TO THE VISUAL RELATIONSHIPS WITH OTHER EXISTING OR PROPOSED WIND TURBINES.

- 4.5 It is important that full consideration is given to all implications of a wind farm, as once the turbines are installed they will need to be safeguarded from development which could affect their ability to generate power during their operational life. Accordingly Policy EP8a states:

PERMITTED OR OPERATIONAL WIND TURBINES GENERATING POWER TO THE GRID WILL BE SAFEGUARDED FROM DEVELOPMENT WHICH WOULD PREJUDICE THEIR OPERATION THROUGH A REDUCTION IN ELECTRICAL POWER OUTPUT.

Policy EP8 identifies the key factors which will be taken into account in assessing proposals for medium and large wind turbines. These are considered in turn below.

5. Impact on the Character, Recreational Value and Visual Amenity of the Green Belt or Landscape.

- 5.1 About 70% of the area of Kirklees outside the national park is within the **green belt**. UDP policy D8 applies to development in the green belt and is set out in Appendix 8 together with supporting text. Given that the green belt is tightly drawn around the urban areas, green belt sites are likely to offer the most realistic opportunities for the development of medium or large wind turbines.
- 5.2 In the context of Policy D8 the key criterion which proposals for wind turbines need to meet is that of preserving the openness of the Green Belt. In addition the siting of proposals should not conflict with the purposes of including land within the Green Belt. Under such circumstances development could be accepted as ‘not inappropriate’. Government guidance does not suggest a “correct” approach to making such judgements. Even if a wind turbine proposal is judged to constitute inappropriate development, policy D8 makes clear that it could still be accepted if there were “very special circumstances”. Arguably the need to meet a regional or national target for the generation of energy from renewable sources could constitute such circumstances, but this would need to be coupled with evidence that there were no non-green belt alternatives where the turbines could be sited.
- 5.3 A further requirement of policy D8 is that development deemed to be appropriate in the green belt should not detract from visual amenity by reason of siting, materials or design. Guidance on these issues is provided in the following paragraphs.

In considering the **visual impact** of proposals the Council will take into account the following factors:

Scale of Proposals

- 5.4 The scale of a proposed wind power development will be fundamental to its ability to ‘fit’ into the landscape. A smaller development may be able to use the natural topography of the landscape to effectively ‘mask’ the degree of visual impact through a more random design pattern taking turbine bulk away from the skyline and the edge of prominent ridges. Relatively extensive wind power developments or those involving more powerful and thus larger turbines will be unsuitable in more ‘domestic’ scale landscapes. These considerations are site specific and heavily dependent on local factors.

Visibility from Strategic Viewpoints

- 5.5 In general terms, the visual impact of a wind power development will be reduced when viewed from a distance, although in areas such as the South Pennines moorland, long distance views can be as valuable as ‘close-up’ views in areas of recreational and historic value. The visual impact of a windfarm may also vary according to short-term changes in atmospheric conditions and with the succession of the seasons. The significance of impact will depend on the quality of the landscape, sensitivity of the view and the design of the windfarm.
- 5.6 The growing tendency towards fewer but much larger and more powerful turbines (over 40m high and up to 70m or more from ground to blade tip) may make such development more difficult to integrate with natural landscape contours.
- 5.7 In determining key viewpoints, the Council will take account of such factors as significant settlements, recreation areas and routes, major tourist locations, road, rail and canal corridors and features of specific heritage value. Applicants will be expected to use the Visual Impact Assessment Techniques outlined in Appendix 9.

Impact of Ancillary Development

- 5.8 In the case of ancillary buildings and structures, the proposal should demonstrate that it has used natural contours in landform, rocky outcrops etc to help screen development as far as possible, especially on the leeward side. Characteristic building materials of the area should be used. The impact of the location and materials used for the access road needs to be taken into account.

Turbine Colour

- 5.9 Colour of turbines should be white/off white or light grey as these colours tend to be most appropriate for a wide range of landscape backgrounds, light and weather conditions. (Other colours should be demonstrably more suitable if proposed). A shiny or glass finish to turbines should be avoided as it can lead to a reflection of sunlight off rotor blades. Matt finishes are encouraged.
- 5.10 Kirklees contains a diversity of **landscape** ranging from gritstone moorland in the west to undulating mature farmland in the east. The character of a particular landscape will influence its ability to absorb change. Consistent with the advice recently issued in the Rural White Paper the planning authority would wish to safeguard the following elements:
- The interrelationship of local settlements with their upland frame;
 - The cultural and heritage value of the landscape;
 - The quality and character of the landscape for recreation, in particular where ‘wilderness’ value is of key importance;
 - The value of the landscape for tourism;
 - Views towards prominent skylines and from significant viewpoints and routes.

- 5.11 The Peak District National Park has a special status. Visibility from and into the National Park will therefore be a relevant factor to take into account when considering proposals for the siting of wind turbines. UDP policy NE8A states:

DEVELOPMENT WHICH WOULD BE INTRUSIVE IN VIEWS FROM WITHIN THE PEAK DISTRICT NATIONAL PARK, OR HAVE A HARMFUL IMPACT ON VIEWS INTO THE PARK, WILL NOT BE PERMITTED.

Consequently medium and large turbines will not be permitted where their siting would have an adverse impact on views from or looking into the National Park.

- 5.12 Areas of High Landscape Value (AHLV) are defined on the UDP proposals map. Policy NE8 states:

DEVELOPMENT WHICH WOULD ADVERSELY AFFECT LANDSCAPE QUALITY WILL NOT BE PERMITTED WITHIN AREAS OF HIGH LANDSCAPE VALUE. IN THESE LOCATIONS PARTICULAR ATTENTION SHOULD BE PAID TO SITING, DESIGN AND CONSTRUCTION MATERIALS AND THE TREATMENT OF ASSOCIATED LAND.

In the first instance applicants should therefore seek to identify sites which lie outside AHLV and have no significant impact on these areas. Were a proposal to be submitted which did have an impact on an AHLV, then, as part of the ES, the Council would require the submission of evidence that locations outside the AHLV had been fully considered and that mitigating measures could be included to minimise adverse effects.

- 5.13 The countryside in Kirklees provides a vital **recreation** resource for informal activities such as walking, horse riding or cycling and visiting attractive places such as picnic sites, woodlands, reservoirs and historic buildings. The countryside contains a network of public rights of way and local and sub-regional trails which underpin such activities and needs to be enhanced and retained. UDP policy R10 supports the legitimacy of informal recreation and outdoor sports in the countryside. Policy R13 sets out the Council's stance on development which affects a public right of way or access area. The latter would include rights over common land. Both policies are included in Appendix 10.

- 5.14 The local planning authority attaches particular importance to the Pennine Way and diversions and to major district-wide and inter-authority routes. Proposals which would be intrusive for users will be resisted. All proposals should identify all public rights of way within the site and all other routes, recreational facilities and common land where recreational value could be affected and provide an assessment of the impacts of the proposal on the character and amenity of these routes and areas of value. Details of any mitigation or enhancement measures proposed should also be identified. It should be noted that proposals to incorporate visitor facilities with a wind power development will not generally be considered to be appropriate mitigation.

6 The Character, Appearance or Setting of a Listed Building or Conservation Area

- 6.1 Despite the expansion of the urban areas, in many parts of the district individual **historic buildings** or groups of buildings remain with a clear link to their setting within the wider landscape. In particular much of the special character and cultural value of the district derives from the interrelationship of buildings and various structures and features of historic and archaeological value in the landscape.

The Council will require proposals to take full account of the setting and character of historic buildings, structures and conservation areas and the **South Pennines Heritage Area**, (see explanatory note in appendix 11).

7 The Amenity of Occupiers of Land in the Vicinity

- 7.1 Experience suggests that the key factor influencing the amenity of occupiers of land in the vicinity would be the noise of the turbines. However, the extent to which the windfarm might dominate individual homes, settlements and publicly accessible land will also require consideration. The proximity of susceptible noise sensitive premises and the number of properties whose amenity could be affected needs to be identified at an early stage.

Noise Assessment

- 7.2 Wind turbine noise is a combination of mechanical noise from the drive train and aerodynamic noise from the rotor blades. Experience gained from wind power development now up and running in the UK has indicated that, partly due to the different sources of the noise, they present a unique combination of acoustical characteristics. Any planning application concerning a wind power development will need to be supported by an appropriate noise assessment. Early consultation with the Council's Environmental Services (Pollution and Noise Control - Tel. 01484 226436 Fax. 01484 226409) is advised in all cases to discuss site-specific requirements. In particular it is important to discuss and agree:

- The location of noise sensitive properties
- Monitoring locations
- Survey and prediction methodology
- Assessment methodology and presentation of results

Background Noise Monitoring

- 7.3 The applicant should carry out a survey to determine the existing noise climate of the area including levels at nearby noise sensitive properties likely to be affected by noise from the development. The process of background noise monitoring should be carried out according to specific guidelines which are available from Kirklees Environmental Services, Pollution and Noise Control.

Noise Predictions

- 7.4 Once background levels have been determined the applicant should predict noise levels likely to be produced by the proposed development and the impact of these upon the existing noise climate. Noise levels should be predicted over the full range of operational wind speeds, including data on 'worst case' scenarios, and details of prediction methods given.

The information submitted should include the following:

- the number of wind turbines proposed
- technical details of the turbines
- location of rotor
- speed of rotation
- 'cut-in' wind speeds

Plant noise data including sound power levels or actual measured levels including spectra if barrier, building or ground absorption calculations are used.

If fully 3 dimensional computer modelling has been used it will only be possible to check a limited number of predictions. As a minimum typical calculation sheets should be supplied for worst-case scenarios. Such details should enable the Authority to verify the results in terms of the contribution of each item of plant and the total predicted noise from the development.

Assessment

- 7.5 When interpreting information supplied as part of a wind power proposal, the Council will take into account the appropriate standards and sources of guidance noted in Appendix 12. Later information from field studies and updated publications may be used as this becomes available. This will enable the Council to determine whether the proposed development is acceptable in terms of noise impact and in particular whether noise will be detrimental to amenity or likely to constitute a statutory nuisance. Where noise mitigation measures are proposed details of these should be clearly specified and shown in any prediction model.

8 The Ecology of the Area

- 8.1 The Council will generally require an **ecological survey** to accompany a planning application for a wind farm, Where appropriate this will form part of a comprehensive environmental assessment. Any ecological survey must include all relevant considerations for the site which should include the following.

Characteristic Habitats and Species

- 8.2 A full analysis of site habitats and usage by wildlife will be required and should take into account seasonal variations, breeding, migration etc where required. Appropriate mapping (including transects) and written commentary should be provided in conjunction with details of the methodology employed, survey dates etc. Any existing records should be incorporated into any assessment exercise as surveys over one single season may be distorted by factors such as fluctuation in weather conditions.

Potential Disturbance to Species and Habitats during Construction

- 8.3 The construction phase of a wind power development can be quite intensive and significant in its impact on habitats and species and can extend beyond the actual boundary, for example, because of the need for cable trenching. The use of cranes and construction vehicles, piling and underground cable laying, the creation of access tracks, compounds, erection of buildings etc can all have major impacts which must be rigorously assessed.
- 8.4 The Council will require information in respect of a range of issues including:
- Seasonal disturbance of key bird species and their breeding and feeding territories
 - Effect on mammals, invertebrates, amphibians, reptiles, plants and rare and protected species
 - Fragmentation of habitats and likely long term effects on biodiversity
 - Major bird migration routes
 - Changes in hydrology
 - Effect on peatland / soil
 - Potential disturbance to species and habitats during operation.

The Scope for Accommodation Works and Mitigation

- 8.5 In many cases it may be possible through careful siting and layout of turbines, access tracks etc to avoid or minimise damage to important features and habitats, for example by avoiding wet or marshy areas, using local stone for access tracks, revegetating access tracks after construction or stock-proofing to encourage vegetation growth. Where habitat may be damaged or disturbed, a developer should identify, where possible, the scope for mitigating such impacts and the accommodation works that will be necessary to achieve this.

- 8.6 A land management agreement may be sought to agree remedial works or as a form of compensation. Where the site is in agricultural use, land could be entered into Countryside Stewardship. Combining the wind farm development with ecological enhancement of the open land surrounding the turbines would help to mitigate any possible wildlife and landscape degradation that may occur. A plan of this type should specify locally appropriate habitat creation and management, including relevant species and cutting/grazing regimes. The Council will pay particular attention to ensuring that proposals to protect, reinstate or recreate vegetation and habitats are realistic and appropriate to the site in question.
- 8.7 Construction and Restoration Method Statements should be drawn up which clearly establish the aims and priorities of impact reduction measures and monitoring programmes. Construction of the site should be timed to minimise any negative effects on species using the site.

9 Areas Designated at National, Regional or Local Level as of Nature Conservation, Scientific or Archaeological Interest

- 9.1 There are 3 categories of sites of **nature conservation** value identified in the UDP which are afforded specific protection; Sites of Special Scientific Interest (SSSIs), Sites of Scientific Interest (SSIs) and Sites of Wildlife Significance (SWSs). The majority of sites in the district which are protected for their nature conservation value cover a relatively small area of land, with the exception of the major SSSI covering the South Pennine Moors, which is also a Special Protection Area (SPA) and candidate Special Area of Conservation (cSAC).
- 9.2 Potential developers are advised to consult PPG 9 which relates to nature conservation and in particular the section and decision-making tree on consideration of development proposals affecting SPA's and cSACs. The starting point is the need to consider whether the proposal is likely to be significant in terms of the ecological objectives for which the site was classified or designated. Policies NE2 and NE2A in the UDP (which are reproduced in full in appendix 13a) prohibit development which would have an adverse impact on SPA's and SSSI's. Appendix 13b provides further information on the importance of the SPA. Developments likely to have a significant effect on a SPA or cSAC will be subject to an Appropriate Assessment under the Habitat Regulations 1994.
- 9.3 Research has been carried out since the designation of the South Pennine Moors SPA which has recognised that key bird species do not simply utilise land within the SPA/SSSI boundary but will forage over larger areas including wet pasture and hay meadows within adjoining agricultural land. Consequently medium or large wind turbines should not be sited either within the SPA or its margins or within other areas of nature conservation importance identified in the Unitary Development Plan.
- 9.4 The margins of the SPA will consist of habitats which lie outside the boundary, but which are important in supporting the species within it. Where a site lies within 2km of the SPA boundary advice should be sought on assessment of the habitat at an early stage in the investigation.

- 9.5 Where a proposed development might affect a **site of archaeological interest** potential developers must consult the West Yorkshire Archaeological Service at an early stage. The Council will require proposals to take full account of existing sites of archaeological interest and the need for appropriate investigation where the possibility of an archaeological site exists.

10 Highway Safety

- 10.1 The Council will consider the potential impact of proposals on the local road network and the ability to provide satisfactory access into any proposed site at all times (including during the construction phase). The proposed development would also need to be assessed in respect of highway safety, and of pedestrians and horse and cycle users on any affected routes. In the case of shadow flicker and its likely effect on both nearby residents, and drivers using nearby public highways, the Council will require appropriate evidence to show that it is not a potential danger or nuisance.
- 10.2 Applicants should take into account the terms of UDP transport policy T10, set out in Appendix 14, and also the Council's Highway Design Guide. They should engage in early discussions with the Council about the above matters as in many cases access to sites may be via minor roads.
- 10.3 There are concerns about the safety of wind turbines, principally from reported incidents of turbine blades coming off and ice being 'thrown' from blades as they rotate. The Council will therefore require all turbines to be sited well clear of private or public roads, railway lines, public rights of way, picnic areas and all other places where people are likely to be present and will expect separation distances to reflect this.

Electromagnetic disturbance

- 10.4 Other aspects of safety which will need to be considered include possible interference with aircraft safety. Prospective developers should ensure that appropriate consultation with the Civil Aviation Authority and other relevant bodies is carried out. With regard to all other potential electro-magnetic interference (eg with TV and radio) the Council will expect applicants to give full consideration to potential problems and provide information about proposed remedies.

Visual relationship with other wind turbines

- 10.5 Wind power developments can have visual impacts which extend across local authority boundaries. While there are currently no wind farms in Kirklees, those which exist in adjoining authorities are readily visible from within the District. The effect of a number of individually acceptable wind farms in close proximity to each other might be to saturate the landscape through the incidence of development. In assessing proposals the Council will take account of the location of wind farms in adjoining authorities and whether they will be seen from each other or both will be seen from a third point, which may be a recognised viewpoint or major recreational route.

Appendix 1

Role of Government in Supporting Renewable Energy

There are 2 elements in the Governments strategy of support for renewable energy, which is led by the Department of Trade and Industry. The first element is support measures in collaboration with industry and the EC Research Programme which help to assess the resource, develop the near market and medium term technologies, remove institutional barriers, disseminate information and stimulate an industrial capacity. The other element is to stimulate the market, using NFFO to date and a replacement mechanism in future.

The Lancashire and Yorkshire Energy Planning Study is an example of assistance with resource assessment, funded by the EC. The study aimed to identify renewable energy resources within the region which are considered to be capable of exploitation. It is accepted that in addressing the renewable energy resource, the study 'does not take into full account the economic, environmental and institutional constraints which in practice do much to define the actual potential'. The issue of consistency with policies reflecting the planning authoritys other obligations to achieve the protection and enhancement of local amenity and the wider environment is also recognised.

Informal advice issued to local authorities from the DTI suggests that such studies should be regarded as a starting point to policy-making. Since 1990, the UK Government has made orders obliging public electricity suppliers to secure specified amounts of power from non-fossil fuel sources, including renewables, these are known as Non-Fossil Fuel Obligations and are financed by the Fossil Fuel Levy paid by all electricity consumers. NFFO is a long term mechanism as projects with contracts can take up to 6 years to build and will be under contract until as late as 2018. The government has recently announced its intention of seeking new mechanisms to stimulate the market in renewable energy. In future licensed suppliers of electricity will be under an obligation to ensure that a specified proportion of supplies is from renewable sources

The Government has classified renewable energy technologies in terms of the scale and timing of their contribution towards fulfilling commitments. On-shore wind is identified as one of the technologies closest to being competitive in the UK. The contribution of on-shore wind to the Government's renewable energy target will depend on the contribution which could be made by other forms of renewable energy, on the contribution from off-shore wind, which is considered to be of medium term importance, and on constraints on the exploitation of wind

Appendix 2 - SCOSPA Principles and Memorandum on Wind Power

PRINCIPLES FOR THE DEVELOPMENT OF PLANNING POLICIES

Principles:

The South Pennine Planning Authorities support in principle the use of wind energy for power generation, provided that this does not adversely affect the valued characteristics of the area, its landscape and ecology and its historic and amenity attributes. In considering proposed wind power applications, and their access tracks, associated buildings and connections to the National Grid or local users, Planning Authorities will have particular regard to;

- A** Their visual impact and the cumulative scale of that impact on the landscapes in respect of:-
- nationally and locally designated landscapes
 - the visibility of wind turbines especially on skylines and other prominent locations from long distances and across administrative boundaries
 - the effect of wind turbine development on all areas, footpaths and bridleways with significant recreational value
 - the impact on open upland moorland areas which currently have little or no development
 - the need to mitigate the appearance of permitted turbines by siting and design.
- B** Their impact on the historic character and cultural heritage of the area particularly in respect of:-
- Conservation Areas and Listed Buildings
 - sites of archaeological importance
- C** Their impact on the ecology of the area, particularly in respect of:-
- nationally or locally designated sites of wildlife or scientific importance
 - the water table and water supply
 - flora, fauna and the peat environment or its restoration
- D** Their impact on the local population particularly in respect of:-
- Noise, nuisance and safety issues
 - Public access to open areas, including urban commons
 - The local economy and particularly on tourism.
- Developers will be encouraged to carry out full consultation with the local authorities concerned and with the local population prior to a planning application being submitted. In addition planning applications should generally be Accompanied by full environmental assessment.

Wind Turbines in the South Pennine Area Memorandum of Understanding

- 1** One of the planning priorities of the Local Authorities in and around the South Pennines is the conservation and enhancement of the environment. An important element of this is a reduction in the use of non-renewable and polluting energy sources, in line with the concept of Sustainable Development.
- 2** However, there has been a proliferation of planning applications for and developments of, wind turbines in the South Pennines over the past two years. The cumulative impact of these, especially their visibility across the local authority boundaries, make a strategic sub-regional approach necessary.
- 3** Local planning authorities in the area are currently at different stages in preparing their development plans. Nevertheless, they are all subject to Government planning policy guidance (especially PPG 22 on Renewable Energy). In view of their common concerns, planning authorities in the South Pennines Area have formulated a coordinated policy approach to turbine proposals. Together with development plan policies this will assist the assessment of planning applications for windfarm development. Indeed it may also help in the preparation of development plans on which work is not well advanced.
- 4** The Memorandum of Understanding established common co-ordinated principles for the development of planning policy for wind turbine developments in and around the South Pennines. Individual development plans set out detailed policy considerations.
- 5** It demonstrates the response of this group of Local Planning Authorities to the rapidly evolving situation relating to renewable energy. It is considered necessary to augment and take further existing national planning policy as a result of local experience and co-operation.
- 6** In addition to being a consideration in the assessment of planning applications it is recommended that these principles for policy development and this memorandum should be taken into account when existing National Planning Policy Guidance is reviewed.
- 7** The participating Local Planning Authorities are:-
City of Bradford MDC; Burnley BC;
Calderdale MBC; Craven DC; Kirklees MBC; Lancashire CC; Leeds City Council; Oldham MBC;
Peak District NP; Pendle BC; Rochdale MBC; Rossendale B Wakefield City Council.

Appendix 3

The Wind Resource in Kirklees

Developers are referred to the existing database of estimated annual mean wind speeds over the UK at 45 metres above ground level dating from 1989 which is available from ETSU. The data are derived from an air flow model which estimates the effect of topography on wind speeds, calibrated with Meteorological Office data. However there are a number of reservations which need to be taken into account in interpreting the data, for example no allowance has been made for topography or for obstacles such as buildings or trees.

The LYREPS Study notes that the Pennine Hills provide a substantial wind resource and the extract showing wind speeds for Kirklees shows that the highest wind speeds (ie those above 8 m/s) are concentrated around the south western boundary of the district. However the majority of the upland area where wind speeds are high, has a special status by virtue of lying within the Special Protection Area or the National Park. If wind speeds of between 6.5 and 8 are considered to be an exploitable commodity, then the resource is distributed more widely across the district, although windy areas are still located close to boundaries with neighbouring authorities, reflecting the topography of the area.

The LYREPS Study considers that a wind speed of at least 7 m/s to be the current threshold for commercial viability. The study takes the view that:

‘Land areas with an estimated wind speed of less than 7 m/s are much less cost-effective and unlikely to be developed in the near future.’

However, outside the region, exploitation of lower wind speeds has taken place. Moreover, as technologies continue to develop and new applications, such as the direct supply of industrial premises, become more feasible it is misleading to assume that there is a fixed threshold for viability. Viable proposals for turbines can be expected in locations with speeds of less than 7m/s. A further trend is that turbines are becoming larger and generally tend to have 3 blades. It is also anticipated that in the future a number of off-shore wind farms could be developed.

A NFFO contract was approved to provide a wind farm in Kirklees at Cupwith Hill, which lies in the South Pennines Special Protection Area to the north of Slaithwaite, An anemometer was erected and has since been taken down, but no subsequent application was submitted. There are however a number of operational wind farms in adjoining districts, particularly those which fringe the South Pennines, a number of which are visible from within Kirklees.

Appendix 4

Connection to the Grid

Connection to the grid is required for schemes to make a significant contribution towards meeting energy needs and also to win NFFO support. A plant generating electricity may need to be connected to the grid via transformers and power lines or cables. New connection apparatus, if required can have planning and environmental implications, especially in more remote areas. Underground cable connections may be costly and disruptive in sensitive areas, whereas overhead lines are visually intrusive and may be unacceptable in many locations.

The following principles are proposed to be used as guidance:-

In general all proposals to use renewable energy sources should seek to minimise the length of cable connection to the grid, unless detours are necessary to avoid sensitive areas.

To avoid further proliferation of cables, every effort should be made to route power lines underground, except where this may cause damage to hydrology, peat deposits or areas of archaeological interest.

A further issue which arises from the generally dispersed nature of renewable forms of generation is that they are frequently 'embedded'. This means that they connect to the local electricity distribution system rather than to the main national transmission grid. The government has expressed a commitment to future change to allow improved access and competition for embedded generation.

At present local distribution companies may not have the proper incentives to value and accommodate embedded generation. Yorkshire Electricity confirm that as the grid is geared to large scale producers connecting smaller scale individual projects can have a significant impact. Any connection to the network would need to be evaluated on an individual case by case basis. Potential developers of any renewable energy projects, which require grid connection, are advised to consult with Yorkshire Electricity at an early stage in their assessment of a particular proposal. This expense plus the time taken need to be built into the project appraisal / feasibility study. Even within an established urban area, it should not be assumed that connections to the grid will be straightforward.

Appendix 5

CHECKLIST OF POSSIBLE IMPACTS ON NATURE CONSERVATION

NB - list is not exhaustive

Impact	Timing
Direct habitat loss (eg on site, cable route) and associated biological impacts (eg reduced species diversity, loss of feeding/breeding habitat	C/O
Habitat damage (eg on site, access roads, cable route) and associated biological impacts (eg reduced species diversity, loss of feeding/breeding habitat, changes in livestock management regimes)	P/C/O/D
Introduction of new substrate/habitat	C/O
Interference with geological/geomorphological processes (eg slope processes)	C/O
Interference with hydrological processes (eg increased run-off from upland sites, erosion of peatlands)	C/O
Pollution (particularly toxic)	P/C/O/D
Sediment disturbance (turbidity, siltation)	P/C/D
Disturbance to mobile species (eg mammals, birds, including migration, feeding, breeding) I) Shadow effects from blades II) Noise III) Vibration	i) O ii) C/O/D iii) C/O
Bird collision	O
Associated infrastructure including: I) Access (tracks/roads) II) Visitor centre (disturbance) III) Overhead power lines IV)	i) P/C/O/D ii) C/O/D iii) C/O
Vehicle movements	P/C/O/D

P = pre-construction, C = construction, O = operation phase, D = decommissioning

Appendix 6

Wind Power

(Extract from UDP Chapter on Environmental Protection)

In Kirklees, wind power is the most likely source of renewable energy. There are areas within the District with sufficiently high average wind speed to make the establishment of wind turbines viable. These are large structures which can dominate a landscape not only by size (as large as an electricity pylon) but by the fact that whilst working they introduce constant movement into a landscape which can be obtrusive and distracting. Because of the 'hill and dale' topography of the District, and dispersed settlement pattern, it is unlikely that wind turbines will ever be able to be sited completely out of public view. However, what should be avoided is a proliferation of individual turbines across a landscape. Proposals for wind farms, (groups of wind turbines specifically erected to utilise wind energy on a commercial basis by feeding power to the national grid) can therefore be viewed more favourably, provided that no serious harm is caused to any landscape of special character or importance.

Wind turbines may be categorised as small, medium or large. The main determinant is blade diameter and type of use. Small turbines typically have 6 blades of 2-3m diameter, which can rotate quite rapidly (200-400 rpm). The height of the tower varies but rarely exceeds 10m. These supply sufficient amounts of DC power to charge batteries, so that small appliances can be used in remote locations, eg for caravans, canal boats, or for agricultural uses like electric fences. Medium turbines have 2 or 3 blades with a diameter of about 30m. These are mounted on a tower of about 25m height, and will rotate around a horizontal axis at a speed of 40-50 rpm. Maximum generating power is in the region of 300-400 KW. These are used either to supply power direct to a user (eg for space heating or cooling) or can be connected to the electricity company's 415 volt 3 phase network. Medium turbines are the most likely structures to be used in wind farms. Large turbines capable of generating 3MW have been constructed with blades 60m in diameter mounted on 40m high towers. These are used only to supply power to the national grid.

Small Turbines

Small wind turbines are relatively inconspicuous, have low noise levels and will not create a prominent feature in the landscape. Proposals will require individual assessment, but to minimise the likelihood of noise being a source of disturbance to occupiers of adjacent land, a separation distance of approximately 5 times the tower height between the turbine and neighbouring occupied buildings will normally be required.

EP7**Medium and Large Turbines**

The generation of significant amounts of power from wind energy requires the erection of large structures which will inevitably form distinctive and prominent features in the landscape. Any proposals for large or medium sized wind turbines should have regard to the need to protect the landscape, particularly in areas of high landscape value.

In locations where there are historic buildings, the modern appearance of a wind turbine would create an incongruous feature which would detract from the setting of the buildings. Therefore, the erection of wind turbines in such locations will be inappropriate.

Wind turbines can be a significant source of noise and as a result, a separation distance is needed between turbines and houses. Noise levels will vary from site to site depending on topography, surface texture, and prevailing wind direction. As noise increases with blade diameter, a guide is 10 times blade diameter. This may vary if local circumstances indicate that a greater or lesser distance is more appropriate. Proposals should be accompanied by a report setting out the noise levels expected at the boundary of the nearest noise sensitive location.

Any permission granted for wind turbines will include a requirement for them to be dismantled and the site cleared of ancillary roadways, buildings and other structures when the use of the turbines has ceased.

Wind farms present the best opportunity to make significant contributions to clean energy generation at the least visual cost to the environment, provided that suitable sites can be found. Specific sites have not been identified, as it is acknowledged that site assessment is a process which can be affected by the state of technology, availability of grant aid, contracts and agreed prices for the sale of power to electricity companies. As the proximity of a suitable high voltage national grid line is likely to be a consideration in the choice of wind farm sites, cable connections should be relatively short. However, in order to minimise the visual impact, such connections should be underground.

EP8

Full consideration needs to be given to all implications of a wind farm development, including any likely shadowing of TV signals, electromagnetic effects and construction of access roads. This can best be achieved by the submission of a full statement of the environmental effects of the proposal at the time the application is submitted. Kirklees Council has agreed a joint statement with 12 other local authorities in the South Pennines area on the approach to wind power proposals in the area, 'Inter Authority Planning Policy

Principles for Wind Power Development'. This document will be taken into account when proposals for wind power developments are considered.

Appendix 7

Background Policies

Part 1 UDP Policies

- G2 DEVELOPMENT PROPOSALS WILL BE CONSIDERED HAVING REGARD TO SUSTAINABILITY, INCLUDING PARTICULARLY THE CONSERVATION OF ENERGY.
- G4 NEW DEVELOPMENT SHOULD ACHIEVE A HIGH STANDARD OF DESIGN.
- D1 DEVELOPMENT PROPOSALS WHICH WOULD LEAD TO A LOSS OF VALUABLE OPEN LAND WITHIN TOWNS OR OF OPEN COUNTRYSIDE WILL NOT NORMALLY BE PERMITTED.
- NE1 THE NATURAL ENVIRONMENT WILL BE SAFEGUARDED WHEN DEVELOPMENT PROPOSALS ARE CONSIDERED.
- EP1 DEVELOPMENT PROPOSALS WILL BE CONSIDERED TAKING INTO ACCOUNT CONSEQUENCES FOR:
- I LAND QUALITY
 - II AIR AND WATER QUALITY
 - III NOISE LEVELS; AND
 - IV VISUAL INTRUSION.

MINERALS

PROTECTION OF MINERALS RESERVES

- M5 SAFEGUARDED MINERAL RESERVES ARE INDICATED ON THE PROPOSALS MAP AS FOLLOWS:-
- I HUDDERSFIELD ROUGH ROCK RESERVES AT CROSLAND MOOR
 - II CUMBERWORTH THIN PIPECLAYS, NEAR SHEPLEY
 - III PIPECLAYS ASSOCIATED WITH THE PENISTONE FLAG SERIES OF THE LOWER COAL MEASURES, ADJACENT TO HEN PERCH QUARRY, DENBY DALE
 - IV ASHLAR AT ROCKINGSTONE, WHOLESTONE MOOR, HUDDERSFIELD
 - V PIPECLAYS AT LARGE DIAMETER PEPEWORKS, LOWER CUMBERWORTH
 - VI ASHLAR AT SOVEREIGN QUARRIES, CARR LANE, SHEPLEY
 - VII SANDSTONE AND PIPECLAYS AT APPLETON QUARRY, SHEPLEY
 - VIII PIPECLAYS AT THE BROMLEYS (NORTH EAST), UPPER CUMBERWORTH
 - IX PIPECLAYS AT THE BROMLEYS (SOUTH WEST), UPPER CUMBERWORTH
 - X PIPECLAYS AT GREEN HOUSE FARM, SHELLEY

DEVELOPMENT PROPOSALS LIKELY TO AFFECT THESE RESERVES SUCH THAT FUTURE SURFACE EXTRACTION WOULD BE PREJUDICED WILL NOT NORMALLY BE PERMITTED.

Appendix 8

UDP Policy

D8

WITHIN THE GREEN BELT, EXCEPT IN VERY SPECIAL CIRCUMSTANCES TO BE DEMONSTRATED BY APPLICANTS, PLANNING PERMISSION WILL NOT BE GRANTED FOR INAPPROPRIATE DEVELOPMENT, IE:

- I THE CONSTRUCTION OF NEW BUILDINGS OTHER THAN FOR AGRICULTURE AND FORESTRY, ESSENTIAL FACILITIES FOR OUTDOOR SPORT AND OUTDOOR RECREATION, LIMITED AFFORDABLE HOUSING WHICH COMPLIES WITH POLICY H11, CEMETERIES AND OTHER USES OF LAND WHICH PRESERVE THE OPENNESS OF THE GREEN BELT AND DO NOT CONFLICT WITH THE PURPOSES OF INCLUDING LAND WITHIN IT, NAMELY: REGULATING THE GROWTH OF URBAN AREAS; PREVENTING THE COALESCENCE OF SETTLEMENTS; PRESERVING THE OPEN LAND THAT EXTENDS INTO THE URBAN AREA FOR RECREATIONAL AND AMENITY USE; PROVIDING FOR EASY ACCESS TO OPEN COUNTRY; AND ASSISTING IN THE PROCESS OF URBAN REGENERATION; AND
- II THE CARRYING OUT OF ENGINEERING AND OTHER OPERATIONS AND CHANGES OF USE UNLESS THEY MAINTAIN THE OPENNESS OF THE GREEN BELT AND DO NOT CONFLICT WITH THE PURPOSES OF INCLUDING LAND WITHIN IT (SET OUT IN I ABOVE).

DEVELOPMENT WHICH IS APPROPRIATE SHOULD NOT DETRACT FROM THE VISUAL AMENITY OF THE GREEN BELT BY REASON OF SITING, MATERIALS OR DESIGN.

Appendix 9

Visual Impact Assessment Techniques

To enable the Local Planning Authority to fully consider all of the visual impacts that a wind power development may have, a detailed landscape assessment will be required with a scope and methodology acceptable to the LPA. The LPA will expect such an assessment to accompany all proposals for wind power developments (as part of an Environmental Statement where required), although clearly the methodology and techniques involved may vary according to the size of a proposal and its location.

The local planning authority will require the use of appropriate visual impact assessment techniques that can be employed as part of a landscape assessment exercise. These should include

Zone of Visual Influence (ZVI)

Sometimes called a 'visual envelope', this is a map-based illustration of the areas from which a development will be visible. They are usually computer generated and are useful for defining the potential visibility of different design options. A ZVI

is generally based on terrain height data only and does not usually contain information about other factors which can have an effect such as buildings, woodlands etc. It does require additional detail from on-site visual assessment in order to be a useful tool for LPA assessment. In all cases the scope and limitations of the ZVI should be clearly noted for the reader. Although a ZVI of 10km will often be appropriate for a wind power proposal, where a large development is proposed or where landscape sensitivity or other local circumstances dictate, a wider zone may be required.

In appropriate circumstances, techniques might have to be developed to demonstrate the cumulative impact of wind power and other developments. For instance, regard might be made to existing alien features such as power lines, telecommunications masts, motorways or quarries, to existing wind turbines and to the new wind power proposals, which may be on a number of sites.

Visualisation

The most effective way of portraying the likely visual impacts of a proposal is to provide a form of visualisation. This is of great value to the LPA and the general public as it enables an easily understood assessment of visual impact. The most common method employed is the 'photomontage' using a composite of coloured photographs with superimposed turbine structures etc. The method requires a high degree of accuracy to match photographs correctly with Ordnance Survey grid references.

In addition to the use of photomontages, other options include computer generated models (which are particularly useful for middle and distant viewpoints) and 'videomontages' which are helpful for illustrating blade movements and in dealing with large proposals or sensitive landscapes.

Cross Sections

A cross section of the landscape can help to indicate wider viewpoints ie from outside a ZVI or in checking how visible one windfarm is from others. They can be difficult to interpret. Sketches can be a useful additional tool in some circumstances.

Other factors to consider in the basic visual assessment of a wind power development proposal include weather conditions. Wind turbine visibility varies in terms of distance and prominence against the landscape depending on weather conditions. Any on site visual assessment as part of a detailed landscape assessment should be carried out in optimum weather conditions to show an acceptable maximum visibility from key viewpoints.

Submitting a Landscape Assessment

Any landscape assessment submitted with a wind power proposal should have a recognised and accepted methodology, which should be detailed as a written section of any submission. It should include the following elements:

A detailed description of the site and the local landform

Detailed mapping and classification of landscape type and visual quality. This should include both landscape character and quality based on physical, historic and human influences.

A ZVI should be defined and accompanied by supporting information such as detailed mapping, clear written descriptions and visualisation by an appropriate means eg photomontage. The ZVI should have minimum radius of 10 km but where circumstances require it, a 15km or greater radius may be needed.

Key viewpoints from within the ZVI (and beyond if appropriate) should be identified, preferably by prior discussion and agreement with the LPA. The visual impact of a proposal should be examined from these viewpoints and sketches, photomontages or other appropriate visualisation techniques should be used. The relationship with other wind turbines or significant developments in the area either operational or with planning approval should also be examined as part of this exercise.

The impact of the proposal on landscape character both on its own merits and, if necessary, in terms of the cumulative effect on the landscape together with other turbine or relevant developments should be recorded.

Any mitigating measures that could be employed in terms of detailed siting or design should be specified and included in any submission to the LPA.

Appendix 10

UDP Policies

R10

INFORMAL RECREATION AND OUTDOOR SPORTS ARE APPROPRIATE COUNTRYSIDE ACTIVITIES AND DEVELOPMENT PROPOSALS SUPPORTING THESE ACTIVITIES WILL NORMALLY BE PERMITTED, PROVIDED THAT THERE WILL BE NO SIGNIFICANT DETRIMENT TO THE VISUAL QUALITY AND CHARACTER OF THE SURROUNDING AREA OR TO WILDLIFE AND ESTABLISHED RURAL LAND USES. PROPOSALS SHOULD BE READILY SERVED BY PUBLIC TRANSPORT.

R13

IN CONSIDERING DEVELOPMENT PROPOSALS ACCOUNT WILL BE TAKEN OF THE POTENTIAL FOR NEW LINKS IN THE PUBLIC RIGHT OF WAY NETWORK AND OF OPPORTUNITIES FOR INCREASED ENJOYMENT OF THE COUNTRYSIDE. DEVELOPMENT PROPOSALS WHICH WOULD AFFECT A PUBLIC RIGHT OF WAY OR PUBLIC ACCESS AREA OR WHICH INVOLVE THE CREATION OF A PUBLIC RIGHT OF WAY OR PUBLIC ACCESS AREA SHOULD ALSO TAKE ACCOUNT OF:

- I THE CONVENIENCE OF USERS OF THE RIGHT OF WAY OR ACCESS AREA; AND
- II THE PROVISION OF FACILITIES FOR PEOPLE WITH DISABILITIES

Appendix 11

Explanatory Note on South Pennines Heritage Area

The Standing Conference of South Pennine Authorities (SCOSPA) has recently declared the South Pennines a non-statutory Heritage Area, which gives formal recognition to the unique natural and cultural wealth of the area; This incorporates natural and cultural features that should be conserved and sustained for future generations. The Heritage Lottery Fund has provided a grant to develop and implement a strategy to protect and enhance its special character. SCOSPA commissioned 3 integrated studies to help manage change and ensure it takes place in ways that are sensitive to the special qualities and character of the South Pennines. The studies are a Landscape Character Assessment, Landscape Guidelines and a Countryside Design Summary.

Appendix 12

Sources of Advice on Noise Standards and Assessment

General advice on noise standards and assessment is contained in the annex on wind energy in PPG 22 and PPG 24 'Planning and Noise'. Developers should also refer to UDP Policy EP6 which relates to development and noise.

'EXISTING AND PROJECTED NOISE LEVELS WILL BE TAKEN INTO ACCOUNT IN CONSIDERING APPLICATIONS FOR DEVELOPMENTS WHICH ARE, OR HAVE POTENTIAL TO BE, NOISE GENERATORS. PREDICTIONS OF CORRECTED NOISE LEVELS AT THE BOUNDARIES OF THE APPLICATION SITE SHOULD BE SUBMITTED WITH THE APPLICATION.'

There have also been further published reports eg 'Assessment and Rating of Noise from Windfarms' by ETSU which contains useful additional advice and guidance from developers and local planning authorities.

Useful Standards related to Environmental Noise and Vibration

BS 4142:1997 Method for rating industrial noise affecting mixed residential and industrial areas.

BS 5228:1984 Code of Practice for noise control on construction and demolition sites.

BS7445:1991 Description and measurement of environmental noise

Part 1: Guide to quantities and procedures

Part 2: Acquisition of data pertinent to land use

Part 3: Guide to application to noise limits

Appendix 13a

UDP Policies:

NE2

DEVELOPMENT PROPOSALS WITHIN OR IN THE VICINITY OF A SITE OF SPECIAL SCIENTIFIC INTEREST WILL NOT BE PERMITTED UNLESS THE CHARACTER AND QUALITIES OF THE SITE CAN MAINTAINED.

NE2A

DEVELOPMENT HAVING A SIGNIFICANT EFFECT ON THE ECOLOGICAL OBJECTIVES OR INTEGRITY OF A SPECIAL PROTECTION AREA WILL NOT BE PERMITTED UNLESS THERE IS NO ALTERNATIVE SITE OR BETTER PRACTICAL APPROACH AVAILABLE AND THE DEVELOPMENT CAN BE SHOWN TO BE PURSUANT TO AN OVERRIDING PUBLIC INTEREST. WHERE A SITE HOSTING A PRIORITY HABITAT OR SPECIES WILL BE AFFECTED DEVELOPMENT WILL NOT BE PERMITTED UNLESS THERE IS NO ALTERNATIVE AND THE DEVELOPMENT IS REQUIRED FOR REASONS OF HUMAN HEALTH, PUBLIC SAFETY OR ACHIEVING BENEFITS OF PRIMARY IMPORTANCE TO THE ENVIRONMENT, OR PURSUANT TO THE ADVICE OF THE EUROPEAN COMMISSION.

Appendix 13b

Importance of SPA

The Special Protection Area covering the unenclosed moorland of the South Pennines was designated under the terms of the EC Bird Directive due to its ecological value. It is important due to the moorland containing important breeding populations of two Annex 1 species of birds namely merlin (*Falco columbarius*) and golden plover (*Pluvialis apricaria*). In addition there are other nationally important breeding population of migratory species particularly curlew, lapwing, ouzel, short-eared owl and twite. The responsibility for securing and retaining the value and significance of the ecology of the area rests with English Nature.

On the edge of the designated area the open moorland and the agricultural in-bye land contains a mosaic of valued habitats including blanket bog, dwarf shrub communities (ie heather etc) hay meadows and various rough grasslands which support many important bird species that breed in the designated area. Once lost, many upland habitats cannot realistically be recreated. Any loss or disturbance of habitats will result in long term disruption of the roosting or feeding patterns of many important upland birds.

Appendix 14

UDP Policy

T10

NEW DEVELOPMENT WILL NOT NORMALLY BE PERMITTED IF IT WILL CREATE OR MATERIALLY ADD TO HIGHWAY SAFETY OR ENVIRONMENTAL PROBLEMS OR, IN THE CASE OF DEVELOPMENT WHICH WILL ATTRACT OR GENERATE A SIGNIFICANT NUMBER OF JOURNEYS, IF IT CANNOT BE SERVED ADEQUATELY BY THE EXISTING HIGHWAY NETWORK AND BY PUBLIC TRANSPORT. PROPOSALS WILL BE EXPECTED TO INCORPORATE APPROPRIATE HIGHWAY INFRASTRUCTURE DESIGNED TO MEET RELEVANT SAFETY STANDARDS AND TO COMPLEMENT THE APPEARANCE OF THE DEVELOPMENT.

Appendix 15

Kirklees Metropolitan Council

Environmental Policies relating to renewable energy:

- EN 1 Reduce Carbon Dioxide (CO₂) emissions from all KMC operations by 30% by 2005, from a 1990 baseline
- EN2 Support and enable the reduction of CO₂ emissions in the Kirklees Area, in accordance with the 'Climate Resolution' (30% reduction by 2005), by encouraging energy conservation and sustainable forms of transport
- EN3 Encourage the development of renewable energy within the Kirklees Area

