Onshore Wind Energy Planning Conditions Guidance Note

A report for the Renewables Advisory Board and BERR

OCTOBER 2007

Front cover photograph of Royal Seaforth Docks courtesy of Wind Prospect Ltd

Onshore Wind Energy Planning Conditions Guidance Note

A report for the Renewables Advisory Board and BERR

OCTOBER 2007*

TNEI Services Ltd

*Report published October 2007. Project completed November 2006, changes since this will not be reflected in the text.

Foreword from Malcolm Wicks, MP Minister of State for Energy

I am pleased to endorse the 'Onshore Wind Energy Planning Conditions Guidance Note', commissioned by the Renewables Advisory Board (RAB), which will be a valuable additional support for those involved in the planning process.

This good practice guide to setting planning conditions for onshore developments offers useful and practical guidance for local planning authorities and other consenting bodies.

It provides advice on the appropriate types of planning condition relevant to wind energy development. It also incorporates information already present within existing planning guidance, provides additional advice regarding the use of planning conditions and outlines sample conditions for use in wind energy developments.

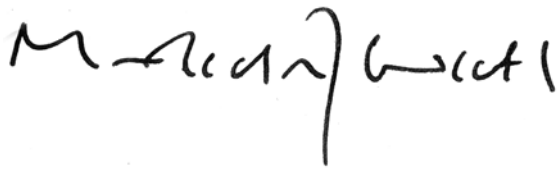
It is available from the BERR website and the Planning & Renewable energy website via the following links –

http://www.berr.gov.uk/energy/sources/renewables/policy/renewables-advisory-board/planning/page35020.html

http://www.planningrenewables.org.uk/cgi-bin/resource.cgi

Along with my colleagues from Communities & Local Government, we recommend this Guidance Note to you.

I hope that this extra resource proves to be a helpful aid to those involved in planning.



Malcolm Wicks MP
Minister of State for Energy
Department for Business, Enterprise and Regulatory Reform (BERR)

Executive Summary

The Renewables Statement of Need was released on 11th July 2006 as part of the Government's report on the Energy Review. This work aims to put the UK in a position to meet the two major long-term challenges in UK energy policy; namely to tackle climate change by reducing carbon dioxide emissions and to deliver secure, clean energy at affordable prices as the UK moves to increasing dependence on imported energy. The Statement emphasises the need to maintain a rigorous planning system that does not disincentivise investment in renewable generation and which must enable decisions to be taken in a reasonable time.

Although existing planning guidance provides advice specific to the use of conditions in many forms of development, there is currently no specific guidance relating to planning conditions for wind energy development. Planning conditions have the power to limit, control or direct the manner in which a development is carried out. As such, they provide an important tool when granting planning permission.[1] The main benefit of this tool, when used correctly, is to allow permission to be granted to a proposal that would, without certain conditions imposed, be unsuitable development. It is, therefore, important to ensure that conditions are used properly. UK Government Guidance on planning conditions (listed in Appendix A) aims to ensure this occurs. This guidance requires that any condition imposed upon the granting of planning permission should comply with six criteria; requiring that the condition be:

- Necessary
- Relevant to planning
- Relevant to the development to be permitted
- Enforceable
- Precise, and
- Reasonable in all other respects.

To assist in meeting the two major long-term challenges in UK energy policy, the aim of this Guidance Note is to provide advice on the appropriate types of planning condition relevant to wind energy development. This advice incorporates information already present within existing planning guidance, provides additional advice regarding the use of planning conditions and outlines generic conditions for use in wind energy developments. It must be stressed that this Guidance Note is intended to be a guide, and it is not definitive. The sample conditions it contains have been drawn out of an exercise analysing a representative selection of planning conditions from 100 UK wind energy consents, previously issued by consenting bodies.[2] It provides advice about the use of planning conditions and outlines generic conditions for use in wind energy developments. This guidance is aimed at Local Planning Authorities and other consenting bodies, in addition to statutory consultees, objector groups, developers, potential wind applicants and other stakeholders.

1 Planning Permission is defined as the formal approval sought from a council, often granted with conditions, allowing a proposed development to proceed. Accessed at www.planningportal.gov.uk/england/government/en/1115310689486.html

2 Consenting authorities within the UK include the Local Planning Authority (England, Northern Ireland, Scotland and Wales), The Planning Inspectorate (England), The Secretary of State (England), The Department for Business, Enterprise and Regulatory Reform (England), The High Court (England), The Planning Service Northern Ireland, The Planning Appeals Commission (Northern Ireland), The Scottish Ministers (Scotland), The National Park Authorities (Scotland), The Welsh Assembly (Wales).

Contents

1 Introduction

1.1 Scope

Planning conditions attached to 100 wind energy planning consents were analysed, relating to schemes in a representative selection of geographical locations throughout the UK. The identified conditions were grouped by category, size of development and geographical location and were then filtered to identify those which demonstrate good practice. From these a set of generic planning conditions for wind energy development was produced in consultation with BERR.

The identified conditions were then assessed and revised where necessary by a wind energy working group consisting of key stakeholders including BERR and representatives from a variety of organisations involved in the wind energy industry (see Appendix B). This document completes the process in providing a set of amended generic planning conditions which are considered relevant to wind energy development throughout the UK.

This guidance document should be read in conjunction with UK Government Guidance on the use of conditions in planning permission, guidance on Renewable Energy and the further advice on conditions provided within Planning Policy Guidance Notes and Planning Policy Statements (listed in Appendix A).

2 The Use of Planning Conditions

Planning Conditions are *"requirements attached to a planning permission to limit, control or direct the manner in which a development is carried out"*[3]. They are imposed by the body granting permission, be it the Local Planning Authority or other consenting authority. Section 70(1) (a) of the Town and Country Planning Act 1990, section 37(1)(a) of the Town and Country (Scotland) Planning Act 1997, and section 25(1)(a) of the Planning (Northern Ireland) Order 1991 enables the Planning Authority, in granting planning permission, to impose "*such conditions as they think fit*". Unless the permission otherwise provides, planning permission runs with the land and any conditions imposed on the permission will bind subsequent owners and occupiers.

Specific UK guidance on the use of planning conditions (listed in Appendix A) has provided the basis for the composition of generic wind energy conditions within this report. The importance of good practice in the use of conditions is duly highlighted within this guidance:

"If used properly, conditions can enhance the quality of development and enable many development proposals to proceed where it would otherwise have been necessary to refuse planning permission.... the use of conditions in an unreasonable way, however, so that it proves impracticable or inexpedient to enforce them, will damage such confidence and should be avoided." (ODPM [now Department for Communities and Local Government], 1995, paragraph 2 & 4).

To ensure good practice, conditions must firstly be consistent with national planning policies as expressed in Government Circulars, Planning Policy Guidance notes, Planning Policy Statements, National Planning Policy Guidance, Minerals Policy Guidance Notes and Technical Advice Notes. They should also normally accord with the provisions of development plans and other policies of local planning authorities where these are up to date and relevant. Secondly, conditions should be justified in the particular circumstances of the proposed development. Thirdly, conditions which duplicate the effect of other legislation should not be imposed.

In addition to the actual condition, Article 22 of the Town and Country Planning (General Development Procedure) Order 1995 requires that an authority shall state a reason for the imposition of every condition. This enables the developer to clearly understand the need for the condition and the need to comply with it. However, each reason associated with a planning condition will generally be specific to the individual consent. Therefore, the generic conditions related to wind energy development outlined within this document do not contain reasons for their imposition.

Although planning conditions are imposed by the body granting permission, reasoned suggestions from the applicant or developer for suitable conditions may be accepted by the determining body. Likewise, if applications are considered at appeal, the determining body welcomes reasoned suggestions from the parties as to conditions which they would find acceptable if permission were granted. Informal discussions between an applicant and the Local Planning Authority are beneficial in reducing the need for conditions, exploring the possible terms of conditions which remain necessary, and ensuring that these are tailored to the circumstances of the case.

3 Definition is taken from the Planning Portal Glossary, accessed at: www.planningportal.gov.uk

As a matter of policy, conditions are required to satisfy the six tests outlined within the UK Guidance (listed in Appendix A). These tests require the planning condition to be:

1. Necessary
2. Relevant to planning
3. Relevant to the development to be permitted
4. Enforceable
5. Precise
6. Reasonable in all other respects.

1. Necessary

A condition should not be imposed unless it is necessary. In deciding whether a condition is necessary consenting authorities should be satisfied that planning permission would have to be refused if the condition was not imposed. Otherwise the condition needs special and precise justification. A condition is unnecessary if it repeats the provisions in another condition imposed on the same permission. A condition would be unnecessary if it would be inappropriate to enforce against a breach of that condition. The condition would also be unnecessary if its scope is wider than that required to achieve the objective.

Permissions should not be overloaded with conditions. The absence of a specific condition does not prevent enforcement action being taken against development which differs materially from the approved design. Therefore, conditions which serve only to repeat details within the planning application approved are unnecessary.

2. Relevant to Planning

A condition which has no relevance to planning is unlawful. Where matters are the subject of specific control elsewhere in planning legislation the consenting authority should rely on them and not impose conditions on the planning permission to achieve the purposes of a separate system of control. In addition, some matters will be the subject of control under separate legislation. A condition would be unnecessary where it duplicates the effect of other controls, and would be unlawful where it conflicts with the requirements of other controls.

3. Relevant to the development to be permitted

The condition must fairly and reasonably relate to the development to be permitted or it would be classed as unlawful. Therefore, it is not sufficient that a condition is related to planning objectives: it must also be justified by the nature of the development permitted or its effect on the surroundings.

4. Ability to Enforce

All conditions imposed upon a planning permission should be capable of enforcement. The wording within conditions must be precise. If not, a condition may be unenforceable due to the inability to detect a breach of that condition. Alternatively it may be difficult to prove a breach of a condition's requirements. For instance, if the requirement of the condition is impracticable to monitor, it would be difficult to prove contravention. A condition must be worded to ensure that what is required can be monitored so any breach may be detected and proven to be an infringement of the condition.

In addition, it must be possible for the developer reasonably to comply with a condition or any enforcement action would fail on the grounds that what is required cannot be reasonably enforced.

‘In some cases ‘Grampian-type’ conditions may be imposed which limit progress on a development until certain measures to protect or secure particular interests are in place. These can help avoid such difficulties of enforcement. However, Grampian or negative conditions should not be used when there are no prospects at all of the action in question being performed within the time-limit imposed by the permission.

5. Test of Precision

The wording of conditions must be precise to ensure that a condition is enforceable. For instance, a condition would be incomplete if it simply required that details of a particular element of a consented development to be submitted to the Local Planning Authority. The condition should also require that those details of the development are approved by the Local Planning Authority and implemented as approved, and should also specify the time or stage of development by which they must be employed.

Conditions should not contain vague expressions sufficiently imprecise to comply with the condition and should include a suitable level of information within the wording of the condition to demonstrate what is required of the applicant to meet the condition.

6. Reasonable

A condition may be classed as unlawful on the grounds of unreasonableness, even though it may be precisely worded and apparently within the powers available. A condition may be unreasonable if it is unduly restrictive. Although a condition may in principle impose a continuing restriction on the use of land (provided that there are good planing reasons for that restriction), such a condition should not be imposed if the restriction effectively nullifies the benefit of the permission.

Even where a condition is not so unreasonable as to be unlawful, it may still be so onerous that as a matter of policy it should be avoided. Any condition which would put a severe limitation on the freedom of the developer to dispose of their property, or which would obviously make it difficult to finance the erection of the development should be avoided on these grounds.

It is unreasonable to impose a condition worded in a positive form which developers would be unable to comply with themselves, or which they could comply with only with the consent or authorisation of a third party. Similarly, conditions which require the applicant to obtain an authorisation from another body should not be imposed. However, although it would be unlawful to require works which the developer has no power to carry out, or which would need the consent or authorisation of a third party, it may be possible to achieve a similar result by a condition worded in a negative form, prohibiting development until a specified action has been taken. However, conditions of this kind should not be imposed if there are no prospects at all of the action in question being performed within the time-limit imposed by the permission.

3 Suggested Models of Acceptable Conditions

Planning conditions applied to wind energy developments can be divided into the following general categories:

- General
- Aeronautical
- Archaeology
- Construction and Access
- Decommissioning
- Ecology and Ornithology
- Electrical Connection
- Electromagnetic Production and Interference
- Landscape and Visual Impact
- Noise
- Shadow Flicker

It is the general practice of many Local Planning Authorities to compile a list of 'standard conditions', attached to the majority of planning permissions. The benefits of such practice include a more efficient use of local authority staff resources, an increase in the speed of application processing, an improved consistency of decisions, and an early indication of possible conditions for developers. However, such lists may encourage the use of such conditions as a matter of routine and could entail the imposition of unnecessary and potentially irrelevant conditions on a permission. Therefore, caution must be applied in the imposition of any of the generic wind energy conditions contained within this report and it is emphasised that they in no way represent a set of 'standard wind conditions'. It must also be noted that they do not represent the full breadth of potentially necessary conditions which need to be applied to wind energy consents and they may not all be appropriate to a particular wind energy development. Conditions should be devised or adapted where appropriate to suit the particular circumstances of case.

3.1 General

General conditions imposed upon wind energy permissions often encompass details determining the development lifetime and time period by which construction is to commence to ensure compliance with The Planning Acts, and to clarify the period of permission. Although wind turbine permissions are often considered to be temporary permissions, the extent of this temporary lifetime, usually 25 years, entails that a generic statutory time-limit condition can often be applied.

Sample Conditions

The development hereby permitted shall be begun before the expiration of [five] years from the date of this permission.

The planning permission is for a period from the date of this permission until the date occurring [25] years after the date of Commissioning of the Development. Written confirmation of the date of Commissioning of the Development shall be provided to the Planning Authority no later than 1 calendar month after that event.

3.2 Aeronautical

Wind turbines and wind farms can affect military and civil air traffic movement and safety in two ways; firstly as a physical obstruction to low flying aircraft, necessitating mitigation either by the wind farm developer or by the aviation sector; secondly, through effects on aeronautical radar systems. As large, moving structures, wind turbines can appear on radar screens as 'radar clutter' and such 'radar returns' from multiple turbines can sometimes be interpreted as fast moving objects, mimicking the returns from aircraft themselves. Where such effects are acceptable or can be mitigated against sufficiently to allow a development to be consented, the MoD and CAA may still wish to be made aware of the first date when the turbine[s] is erected and/or commissioned so that their presence can be taken into account, for example in the production of aeronautical charts, and air crews can be notified as necessary.

Therefore, a generic aeronautical condition may be required if the Ministry of Defence (MOD) or the Civil Aviation Authority (CAA) have requested detailed information that is not included within the planning application or accompanying documents. This information usually relates to the date of commissioning[4] of the first turbine or the date of erection of the first turbine. The requirement of this information is to ensure the MoD and CAA are aware of the first date when the turbine[s] would be possibly present on radar or physically visible by pilots. The provision and compliance of this information would not necessarily be covered by a general condition requiring the development to be in accordance with the submitted planning application. The actual date of commissioning or erection of the first turbine is rarely included within the planning application as such a date cannot be accurately predicted due to variables outwith the control of the developer, for example weather conditions.

Planning authorities should seek to ensure that all potential aeronautical conflicts are resolved and agreements with developers concluded before planning permission is granted. Therefore, this generic aeronautical condition should only be applied when it has not been feasible to resolve the issue prior to the permission and the condition is deemed necessary for aeronautical safety reasons.

Sample Condition

The Company shall provide written confirmation of the following details to the Ministry of Defence/Civil Aviation Authority within [3] months of the date of this permission and the Commencement of Development shall not occur until this confirmation has been given:

i) Proposed date of Commencement of the Development
ii) The maximum extension height of any construction equipment.

Within [14] days of the commissioning of the final turbine, the Company shall provide written confirmation of the following details to the Ministry of Defence/Civil Aviation Authority:

i) Date of completion of construction
ii) The height above ground level of the highest potential obstacle (anemometry mast or wind turbine).

iii) The position of that structure in latitude and longitude

iv) The lighting details of the site.

For further information see the Wind Energy and Aviation Interests Interim Guidance available online at: http://www.bwea.com/pdf/Wind-Energy-and-aviation-interim-guidelines.pdf

4 Commissioning is defined as the point at which the wind turbine or wind farm is put into active service or becomes "active", or is in use or useable condition, accessed at http://www.thefreedictionary.com/commissioning.
The procedure by which a completed building or manufacturing/industrial process is tested and certified to be in operable condition (the condition is rendered by the plan and design function). www.theboldtcompany.com/mrc/terms.htm

3.3 Archaeological

Planning authorities should seek to ensure that potential archaeological conflicts are resolved and agreements with developers concluded before planning permission is granted. Scheduled Ancient Monuments, Listed Buildings and Conservation Areas are protected under separate legislation. Therefore, the use of a generic planning condition on a wind energy permission will usually only be necessary where development might affect a monument which has not been scheduled or an area of archaeological interest that has not been formally designated. Such conditions would enable the recording and, if necessary, the excavation of any remains of archaeological significance disturbed during construction. Alternatively, such conditions could require that elements of a consented development are constructed in a manner allowing the preservation of any such remains *in-situ*.

Circular 11/95, PPG16 and NPPG5 provide advice and suggested generic archaeological conditions associated with general development. An archaeological condition may be imposed to ensure that reasonable access is given to a nominated archaeologist, either to hold a "watching brief" during the construction period or specifically to carry out archaeological investigation and recording in the course of the permitted operations on site.

Where the proposal is given permission, but the Planning Authority wish to secure the provision of archaeological excavation and the subsequent recording of the remains, the following generic condition may be applied:

Sample Condition

No development shall take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority.

3.4 Construction

Construction and access conditions attached to planning permissions are often specific to the site. However, many generic construction conditions aim to ensure that such issues as road safety, public safety, avoidance of dust emissions and impact on water quality etc 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 been submitted as part of the application.

The content of generic construction conditions will depend on the specific site details of the individual development, in addition to the level of information provided as part of the application.

Sample Condition

Prior to the commencement of any works, a Construction Method Statement shall be submitted in writing to, and approved by, the Local Planning Authority. This shall include details relating to:

- *X*
- *Y*
- *Z*

Development shall be carried out in compliance with the approved Construction Method Statement, unless otherwise approved in writing by the Local Planning Authority.

Prior to commencement of any works, an environmental X management plan shall be submitted in writing to, and approved by, the Local Planning Authority. This shall include details relating to:

- *X*
- *Y*
- *Z*

Development shall be carried out in compliance with the approved X management plan, unless otherwise approved in writing by the Local Planning Authority.

However, it must be noted that the generic conditions above will not apply to all wind energy permissions as Construction Method Statements and Environmental Management Plans will not be required for all developments.

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

Sample Condition

The reinstatement of the site, as specified in the approved [Construction Method Statement] should take place within X months of the development becoming operational, unless otherwise agreed in writing with the Local Planning Authority.

In the interests of residential amenity, a generic construction condition may be imposed to limit the hours of work on the site and development.

Sample Condition

In relation to the development hereby permitted; no machinery shall be operated, no process shall be carried out and no construction traffic shall enter or leave the site between the hours of X hours and X hours Monday to Friday, nor between the hours of X hours and X hours on Saturdays, nor at any time on Sundays or Bank Holidays unless approved in writing in advance with the Local Planning Authority.

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 to be required to prevent, reduce or off-set any significant adverse effects of the development on the environment. Further, such conditions should not be used to defer until a later date consideration of any aspect of a development which is likely to have significant environmental effects.

3.5 Decommissioning

Decommissioning conditions are applied to a wind farm permission 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 turbines 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 either submitted as part of the planning application or that such a scheme is requested within the condition. This ensures the specific details of the decommissioning work are outlined and agreed on prior to being carried out. It is standard practice to specify a time by which the required works are to be completed.

Sample Conditions

Not later than X months from the date that the planning permission hereby granted expires, all wind turbines, ancillary equipment and buildings shall be dismantled and removed from the site and the land reinstated in accordance with the decommissioning scheme submitted as part of the application, unless otherwise approved in writing with the Local Planning Authority.

Not later than X months after the development hereby approved becomes operational, a scheme for the restoration of the site, including the dismantling and removal of all elements above ground level, and the removal of turbine bases to a depth of [1.0]m, shall be submitted to and be approved in writing by the Local Planning Authority. The approved scheme shall be carried out and completed within 12 months from the date that the planning permission hereby granted expires.

If any wind turbine generator(s) hereby permitted ceases to operate for a continuous period of X months then, unless otherwise agreed in writing by the Local Planning Authority, a scheme for the decommissioning and removal of the wind turbine generator(s) and any other ancillary equipment and structures relating solely to that generator(s), shall be submitted to and agreed in writing by the Planning Authority within X months of the end of the cessation period. The scheme shall include details for the restoration of the site. The scheme shall be implemented within X months of the date of its agreement by the Local Planning Authority.

3.6 Ecological and Ornithological

Planning conditions can be used to protect habitats and species from the adverse effects of development. Some habitats and species benefit from statutory protection but this protection will not necessarily preclude development taking place. Planning conditions can be used to control the way in which development is undertaken to ensure compliance with statutory provisions. Where development is subject to environmental impact assessment planning authorities should ensure that survey and assessment work required in order to assess the likely significant environmental effects of the development on ecological and ornithological interests have been completed 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.

An example of such 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 a planning condition requiring this to be implemented. The method statement can subsequently form the basis of a licence application, if required.

Sample Condition

No development shall take place during the period 1 March - 31 July in any year unless a survey carried out on behalf of the developer in accordance with a methodology approved in advance by the local planning authority confirms that no [insert name] species are nesting within [insert distance] m of any of the approved wind turbines. The survey shall be repeated at no more frequently than monthly intervals between 1 March - 31 July during the construction period. In the event that such birds are found to be nesting in [insert distance] m of any of the approved wind turbines then no development may take place other than in accordance with a scheme to be submitted to and approved by the Local Planning Authority.

3.7 Electrical Connection

The electrical output from individual turbines of a wind farm is normally connected to a single sub-station on site via cables. This provides the point of common coupling to the electricity distribution network at the appropriate voltage. Planning authorities should seek to determine the preference or need for overhead or underground connection and cabling prior to planning permission being granted. Where the cabling is required to be located underground, which is usually the case in the interests of visual amenity, this may be made the subject of a planning condition if necessary. Conditions relating to cabling have the intention of requiring any on-site cabling between individual turbines and the on-site connection building associated with the permitted development to be located underground. In addition, the generic cabling condition may also require that, following the installation of cables, the ground be re-instated to its former condition for both ecological and visual amenity reasons, in a given time period, to the satisfaction of the Local Planning Authority. However, it must be noted that full re-instatement may not be required in all circumstances, for instance if the land is arable farm land.

Sample Condition

All electrical cabling between [the] individual turbine[s] and the on-site connection building shall be located underground [as per the approved plan (plan number X)] unless otherwise agreed in writing with the Local Planning Authority. Thereafter the excavated ground shall be reinstated to its former condition within X months of the commissioning of the wind turbine[s] to the satisfaction of the Local Planning Authority.

3.8 Electromagnetic Production and Interference

Wind turbines may interfere with electromagnetic transmissions by physically interfering with radio-communications links or broadcast transmissions. Planning authorities should seek to ensure that potential adverse effects on communication and broadcast systems are resolved prior to planning permission being granted. This is usually done by careful siting of the turbines in consultation with radio-communication link providers whose links are highlighted as crossing the site.

Despite this, generic conditions may be imposed to avoid or mitigate possible resultant interference with systems such as domestic television broadcasts. It must be noted that they are not necessarily a requirement of all wind energy developments. The difficulty lies in determining whether the TV interference is a result of the development. Some conditions require a TV reception survey to be produced prior to development to aid in determining whether any adverse effects were a result of the development. Such a condition would be in conjunction with a legal agreement which would require a bond to be provided by the developer to cover works to rectify any adverse effects to TV reception caused by the development. Therefore, any condition that requires measures to be taken by the developer to rectify effects to TV reception without ensuring a suitable method of determining that these effects are a result of the development would be unreasonable.

Sample Condition

Prior to the commencement of development, a baseline television reception study in the X area shall be undertaken by a qualified television engineer and submitted to the Local Planning Authority. Details of works necessary to mitigate any adverse effects to domestic television signals in the X area caused by the development shall also be submitted to and approved in writing by the Local Planning Authority. Any claim by any person for domestic television picture loss or interference at their household within 12 months of the final commissioning of the wind farm/turbine, shall be investigated by a qualified television engineer and the results submitted to the Local Planning Authority. Should any impairment to the television reception be determined by the qualified engineer as attributable to the wind farm/turbine on the basis of the baseline reception study, such impairment shall be mitigated within X months of this decision according to the mitigation scheme outlined.

3.9 Landscape and Visual

Wind turbines are tall visible structures and their introduction into the urban and rural environment inevitably leads to effects on the local landscape and on the visual amenity of the area. The consent of wind energy developments may impact upon landscape designations at a national, regional or local level, in addition to impacting upon the visual amenity of the area.

Planning authorities should seek to ensure that potential landscape and visual issues are resolved and mitigation schemes, if required, are determined, before planning permission is granted. The aim of most landscape and visual planning conditions is to protect, or to reduce the impact on the visual appearance or landscape character of an area. Such a condition may therefore require that a landscape and visual mitigation scheme be submitted as part of the application and that it be subsequently implemented. Such a mitigation scheme may require the prior approval of turbine colour including any manufacturer's or operator's logos on the towers or nacelles.

Sample Condition

The development shall be carried out in compliance with the approved Landscape and Visual Mitigation Strategy submitted as part of the planning application.

However, landscape and visual impact conditions, due to their very nature, tend to be site specific; landscape character and visual impact varies between sites. Despite this, generic conditions relating specifically to turbine design details are attached to the majority of wind energy permissions.

Sample Condition

No work shall commence on site until the following details have been submitted to and agreed in writing by the Local Planning Authority:

- *X*
- *Y*
- *Z*

The development shall be carried out in accordance with the agreed details.

3.10 Noise

The relevant guidance document to assess wind farm noise for wind energy developments throughout the whole of the UK is *ETSU-R-97 The Assessment and Rating of Noise from Wind Farms (1996)*. This provides a framework for the measurement of wind farm noise and for deriving suitable noise limits to offer a reasonable degree of protection to wind farm neighbours without placing unreasonable restrictions on wind farm development or adding unduly to the cost and administrative burdens on wind farm developers or planning authorities. PPS22 (England) commends the use of ETSU-R-97 for assessing wind farm noise. PAN45 (Scotland) and TAN8 (Wales) state that ETSU-R-97 presents a series of recommendations that can be regarded as relevant guidance on good practice. There is no specific guidance (at time of publication) for Northern Ireland regarding the assessment of noise from wind developments. In the absence of specific guidance ETSU-R-97 is commonly used as a method of assessment. PPS18 Renewable Energy (Northern Ireland) is due to be released in draft format in November 2007, this document is expected to provide guidance on the assessment of wind farm noise.

ETSU-R-97 provides two methods for determining operational noise limits for wind farm developments. For single turbines or developments where there are large separation distances between turbines and sensitive receptors, a simplified method can be adopted whereby, if operational noise is limited to $L_{A90,\ 10\ min}$ of 35 dB(A) at the closest receptors in wind speeds up to 10 ms^{-1} at 10m height, then this condition alone would offer sufficient protection to the amenity of the property.

Where this cannot be achieved, ETSU-R-97 recommends that wind farm noise limits should be set at 5 dB(A) above existing background noise levels subject to a fixed minimum limit, and that these limits should reflect the variation in both turbine source noise and background noise with windspeed. The windspeeds that should be considered range between the cut-in speed for the turbine, (usually around 4ms^{-1}) and 12ms^{-1}, with windspeeds being referenced to a 10 metre measurement height.

Fixed minimum limits differ between daytime and night-time periods. The daytime limits apply to the 'quiet periods of the day' comprising:

- All evenings from 1800 to 2300; plus
- Saturday afternoons from 1300 to 1800; and
- All day Sunday 0700-2300.

Night-time periods are defined as 2300 to 0700 with no differentiation made between weekdays and weekends.

ETSU-R-97 recommends that wind farm noise for quiet daytime periods should be limited to 5 dB(A) above the prevailing background or a fixed minimum level within the range $L_{A90,\ 10\ min}$ 35-40 dB(A), whichever is the higher. The precise choice of criterion level within the range 35-40 dB(A) depends on a number of factors, including the number of dwellings in the neighbourhood of the wind farm, the effect of noise limits on the number of kWh generated, the duration and level of exposure to any noise.

For night time periods the recommended limits are 5 dB(A) above prevailing background or a fixed minimum level of $L_{A90,\ 10\ min}$ 43 dB(A), whichever is higher. The night-time minimum fixed level is derived from the sleep disturbance criteria referred to in Planning Policy Guidance Note PPG 24 which is based on World Health Organisation recommendations.

Both daytime and night-time fixed minimum levels can be increased to 45dB(A) or consideration can be given to increasing the allowable margin above background noise where the occupier of the property has a financial interest in the wind farm development.

The use of a fixed minimum noise level was established in ETSU-R-97 to offer a degree of protection to wind farm neighbours without placing unreasonable restrictions on wind farm development.

ETSU-R-97 stipulates a method for determining suitable penalties to be taken into account if the wind turbine generates audible tones.

ETSU-R-97 also prescribes a procedure for undertaking background noise surveys to establish the noise limits and investigative surveys to ascertain compliance with the limits.

Planning conditions relating to wind farm operational noise should always make reference to ETSU-R-97 as it provides the definitive guidance on appropriate techniques to rate and assess wind farm noise. However noise limits will vary for each application, and indeed can vary between the nearest neighbouring properties within an application, and therefore planning conditions relating to noise limits will vary between sites. Determining authorities should critically review and adapt conditions wherever appropriate, to suit the particular circumstances of the case.

Sample Condition

(a) At the reasonable request of, and following a complaint to, the Local Planning Authority, the operator of the development shall measure and assess at its expense the level of noise emissions from the wind turbine generators following the procedures described in "The Assessment and Rating of Noise from Wind Farms, ETSU-R-97" published by ETSU for the Department of Trade and Industry.

The level of noise emissions from the combined effects of the wind turbine generators on the Wind Farm when measured in accordance with section A of the guidance notes shall not exceed at any dwelling lawfully existing at the time of this consent:

During night-time hours of 2300-0700:-

Location	*Wind Speed (m/s at 10m height)*									
	3	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
X location	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*

At all other times:-

Location	*Wind Speed (m/s at 10m height)*									
	3	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
X location	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*

(b) Tonal noise shall be measured by the operator of the development at its expense at the reasonable request of, and following a complaint to, the Local Planning Authority in accordance with the procedure described in section B of the guidance notes.

If, at any dwelling lawfully existing at the time of this consent, the tonal noise from the combined effect of the wind turbine generators exceeds the threshold of audibility:-

(i) by more than 2.0dB but less than 6.5dB a penalty of ((5/6.5) x Audibility)dB shall be added to the noise level derived for that property in accordance with section A of the guidance notes.

(ii) By more than 6.5dB a penalty of 5dB shall be added to the noise level derived for that property in accordance with section A of the guidance notes.

(c) The wind farm operator shall log wind speed and wind direction data at a grid reference to be approved by the Local Planning Authority to enable compliance with (a) and (b) above to be monitored. This wind data shall include the wind speed in metres per second (ms^{-1}) and the wind direction in degrees from north for each 10 minute period. At the reasonable request of the Local Planning Authority the recorded data relating to 10m height above ground level shall be made available to them.

Where wind speed is measured at a height other than 10m, the wind speed data shall be converted to 10m height, accounting for wind shear by a method whose details shall also be provided to the Local Planning Authority.

3.11 Shadow Flicker

Under certain combinations of geographical position, time of day and year, the sun may pass behind the rotor of a wind turbine and cast a shadow. When blades rotate and the shadow passes a narrow window then a person within that room may perceive that the shadow appears to flick on and off; this effect is known as shadow flicker. It occurs only within buildings where the shadow appears through a narrow window opening. Only dwellings within 130 degrees either side of north relative to a turbine can be affected and the shadow can be experienced only within 10 rotor diameters of the wind farm. It is possible to calculate the number of hours per year that shadow flicker may occur at a dwelling from the relative position of a turbine to a dwelling, the geometry of the wind turbine and the latitude of the wind farm site.

The operating frequency of a wind turbine will be relevant in determining whether or not shadow flicker can cause health effects in human beings. The National Society for Epilepsy advises that only 3.5% of the 1 in 200 people in the UK who have epilepsy suffer from photosensitive epilepsy. The frequency at which photosensitive epilepsy may be triggered varies from person to person but generally it is between 2.5 and 30 flashes per second (hertz). Most commercial wind turbines in the UK rotate much more slowly than this, at between 0.3 and 1.0 hertz. Therefore, health effects arising from shadow flicker will not have the potential to occur unless the operating frequency of a particular turbine is between 2.5 and 30 hertz and all other pre-conditions for shadow flicker effects to occur exist.

Shadow flicker is therefore more likely to be relevant in considering the potential effects on residential amenity. Where wind turbines lie within the geographical range which may be affected by shadow flicker it will not be possible to determine whether or not shadow flicker effects will actually be felt until an assessment has been made of window widths, the uses of the rooms with potentially affected windows and the effects of intervening topography and other vegetation. Where it has been predicted that shadow flicker effects may occur in theory, a local planning authority may consider it appropriate to impose a planning condition to provide that wind turbines should operate in accordance with a shadow flicker mitigation scheme which shall be submitted to and approved by the Local Planning Authority prior to the operation of any wind turbine unless a survey carried out on behalf of the developer in accordance with a methodology approved in advance by the local planning authority confirms that shadow flicker effects would not be experienced within habitable rooms within any dwelling.

Sample Condition

The operation of the turbines shall take place in accordance with the approved shadow flicker mitigation protocol unless the Local Planning Authority gives its prior written consent to any variation.

4 Conclusion

This guidance note provides advice about the use of planning conditions in wind energy permissions and outlines potential generic conditions for use in wind energy developments. However, caution must be applied in the imposition of any of the suggested generic wind energy conditions contained within this document. It is emphasised that they do not represent a comprehensive overview of all conditions which have ever been applied to wind energy permissions in the UK. In practice, while this note provides useful sample conditions, determining authorities should critically review and adapt them, and should draft additional conditions wherever appropriate, to suit the particular circumstances of the case.

Appendix A

UK Government Guidance on Renewable Energy

- ODPM (now Department for Communities and Local Government), 2004, *Planning Policy Statement 22: Renewable Energy*
- ODPM (now Department for Communities and Local Government), 2004, *Planning for Renewable Energy: A Companion Guide to PPS22*
- The Scottish Executive, 2000, *National Planning Policy Guidance: Renewable Energy Developments (revised)*
- The Scottish Executive, 2002, *Planning Advice Note 45: Renewable Energy Technologies*
- The Scottish Executive, 2006, *Scottish Planning Policy SPP6: Renewable Energy Consultation Draft*
- The National Assembly for Wales, 2005, *Technical Advice Note 8: Renewable Energy*
- The National Assembly for Wales, 2004, *Draft Ministerial Interim Planning Policy Statement on Renewable Energy D/01/04*

UK Government Planning Guidance relevant to Renewable Energy

- The National Assembly for Wales, 2002, *Planning Policy Wales*
- Department of the Environment, 1993, *A Planning Strategy for Rural Northern Ireland*

UK Government Guidance on Planning Conditions

- ODPM (now Department of Communities and Local Government), 1995, *Circular 11/95: The Use of Conditions in Planning Permission*
- Welsh Office (now the National Assembly for Wales), 1995, *Circular 35/95: The Use of Conditions in Planning Permission*
- Scottish Executive, 1998, Circular 4/1998: The Use of Conditions in Planning Permission
- Department of the Environment for Northern Ireland, 1998, *PPS1 (Northern Ireland) General Principles*

In addition, further advice on conditions is provided within Planning Policy Guidance notes and Planning Policy Statements.

Appendix B Wind

Energy Working Group

NAME	ORGANISATION
Marcus Trinick	Bond Pearce
Sarah Holmes	Bond Pearce
Chris Tomlinson	British Wind Energy Association
Georgina Wong	British Wind Energy Association
Carolyn Vickery	Department for Communities and Local Government
Douglas Crockett	Department for Communities and Local Government
Alan Smith	Department for Business, Enterprise and Regulatory Reform
Fiona Livingston	Department for Business, Enterprise and Regulatory Reform
Gary Mohammed	Department for Business, Enterprise and Regulatory Reform
Lawrence Cadman	Department for Business, Enterprise and Regulatory Reform
Richard Mellish	Department for Business, Enterprise and Regulatory Reform
Richard Morgan	Department for Business, Enterprise and Regulatory Reform
Robert Pridham	Department for Business, Enterprise and Regulatory Reform
Sarah Kydd	Department for Business, Enterprise and Regulatory Reform
David Goodman	Hammonds
Chris Morris	Renewables Advisory Board
David Still	Renewables Advisory Board
Jason Scagell	Renewables Advisory Board
Rae Ebbers	Scottish Executive
Dan Grierson	TNEI
Rebecca Newlove	TNEI
Rosemary Iles	Welsh Assembly
Rosemary Thomas	Welsh Assembly

First published October 2007. Department for Business, Enterprise and Regulatory Reform. www.berr.gov.uk/