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Planning and Environmental Policy Group

Planning Policy Statement 18

‘Renewable Energy’

August 2009

Planning Policy Statement 18: Renewable Energy

Planning Policy Statements (PPSs) set out the policies of the Department of the Environment on particular aspects of land-use planning and apply to the whole of Northern Ireland. Their contents will be taken into account in preparing development plans and are also material to decisions on individual planning applications and appeals.

This Planning Policy Statement, PPS 18 'Renewable Energy' sets out the Department's planning policy for development that generates energy from renewable resources and that requires the submission of a planning application. In addition the PPS encourages the integration of renewable energy technology and greater application of the principles of Passive Solar Design in the design, siting and layout of new development.

The document 'Wind Energy Development in Northern Ireland's Landscapes' (SPG), published by the Northern Ireland Environment Agency identifies landscape characteristics that may be sensitive to wind turbine development. This document provides supplementary planning guidance on the landscape and visual analysis process, and the indicative type of development that may be appropriate. The SPG will be taken into account in assessing all wind turbine proposals.

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Preamble

The Department of the Environment is responsible for planning control in Northern Ireland. The Planning Service, an Agency within the Department, administers its development control and development plan functions.

The Department has a statutory duty, laid down in Article 3 of the Planning (Northern Ireland) Order 1991, to formulate and co-ordinate policy for securing the orderly and consistent development of land and the planning of that development. The Department is required to ensure such policy is in general conformity with the Regional Development Strategy.

The Department's planning policies are normally issued through Planning Policy Statements (PPS) and PPS 1 'General Principles' advises that:

"Planning Policy Statements set out the policies of the Department on particular aspects of land-use planning and apply to the whole of Northern Ireland. Their contents will be taken into account in preparing development plans and are also material to decisions on individual planning applications and appeals."

This Planning Policy Statement, PPS 18 'Renewable Energy' sets out the Department's planning policy for development that generates energy from renewable resources and that requires the submission of a planning application. In addition the PPS encourages the integration of renewable energy technology and greater application of the principles of Passive Solar Design in the design, siting and layout of new development.

This Statement supersedes Policy PSU 12 'Renewable Energy' of the Planning Strategy for Rural Northern Ireland. Where the above policy is referred to elsewhere in the Planning Strategy, the policies of this statement will take precedence. The policies of this PPS do not apply to off-shore renewable energy development as these are not subject to control under the land use planning system.

The PPS has been subjected to an equality impact screening exercise in line with the statutory obligations contained in Section 75 of the Northern Ireland Act 1998. The outcome of this exercise indicates that the PPS is unlikely to have significant adverse implications for equality of opportunity or community relations.

Nothing in this document should be read as a commitment that public resources will be provided for any specific project. All proposals for expenditure by the Department are subject to economic appraisal and will also have to be considered having regard to the overall availability of resources.

1.0 Introduction

1.1 Renewable energy comes from energy sources that are continuously replenished by nature. The main sources of renewable energy are the wind, the sun (solar energy), moving water (hydropower), heat extracted from the air, ground and water (including geothermal energy), and biomass (wood, biodegradable waste and energy crops). Further information on current renewable energy technologies is set out in the "Best Practice Guidance to Planning Policy Statement 18 'Renewable Energy'".

1.2 Greater use of renewable energy technologies will reduce our dependence on imported fossil fuels and will bring diversity and security of supply to our energy infrastructure. It will also help Northern Ireland achieve its targets for reducing carbon emissions and will reduce environmental damage such as that caused by acid rain.

1.3 The varied nature of renewable energy technologies presents the potential to develop an indigenous renewable energy industry and provides a range of opportunities to support the Northern Ireland economy including:

- direct and indirect employment opportunities during the construction and operational phases;
- revenue to the owners of the land on which they are built;
- employment in the manufacture of components and services
- opportunities for rural diversification, the alternative agricultural use of land and employment in the production of biomass crops;
- a beneficial route for the utilisation of residues and wastes that might otherwise be difficult or expensive to dispose of; and
- an improved source of electricity in remote locations.

2.0 Policy Context

International and National Obligations

2.1 As part of its climate change package announced in 2008, the EU has set EU-wide targets for 20% reduction in energy use, a 20% share for renewables in the energy mix and a 20% reduction in greenhouse gases all by 2020. In order to achieve the 20% share for renewables, the EU Renewable Energy Directive (Directive 2009/28/EC) has set challenging and mandatory new targets for increasing the level of renewable energy consumption in all EU Member States across electricity, heat and transport. Northern Ireland will play its full part in helping the UK to meet its EU targets for renewable energy.

2.2 The Climate Change Act, requires gas emission reductions of at least 80% by 2050, and reductions in CO_2 emissions of at least 26% by 2020, against a 1990 baseline.

2.3 The Northern Ireland Renewables Obligation is the main policy mechanism for promoting the generation of electricity from renewable sources in line with the Renewables Directive. As such it supports international and national commitments to address climate change by reducing emissions of greenhouse gases into our atmosphere. It also addresses the need to reduce Northern Ireland's high dependency on imports of fossil fuels.

Regional Development Strategy

2.4 An objective of the Regional Development Strategy for Northern Ireland 2025 (RDS) is to emphasise the importance of cutting environmental costs generally, by reducing the consumption of natural resources and energy from non-renewable sources.

2.5 A number of specific measures contained within supporting actions to the Strategic Planning Guidelines in the RDS include:

- promotion of the development of renewable energy resources (RNI 1.1);
- place a special emphasis on the conservation of the natural heritage of peatlands (ENV 1.1);
- promote more prudent and efficient use of energy and resources, and effective waste management (ENV 5);
- promote the use of cleaner and more efficient fossil fuels and the exploitation of renewable sources of energy and alternative energy technology for power generation (ENV 5.3); and
- promote energy saving and energy efficiency measures in households, businesses, construction/industry and the public sector (ENV 5.3)

Energy Policy

2.6 The Department of Enterprise, Trade and Investment (DETI), which has responsibility for energy in Northern Ireland, has published a revised Strategic Energy Framework (SEF) which sets out the scale of Northern Ireland's ambition in the form of new and challenging renewable energy targets. The SEF makes it clear that it is likely that on-shore wind will continue to provide the largest proportion of renewable electricity generation in the period to 2020, not least because it is one of the cheaper forms of renewable electricity generation. The SEF also makes clear the ways in which the Department is developing other forms of renewable energy generation.

2.7 These renewable energy targets form the backdrop of this PPS and the complementary 'Wind Energy Development in Northern Ireland's Landscapes' Supplementary Planning Guidance (SPG). DETI and DOE are committed to working together to ensure that these new targets, in line with what is required under the new Renewable Energy Directive, are achieved in a way that respects local and environmental considerations.

2.8 In addition, the UK Renewable Energy Strategy, published by the Department of Energy and Climate Change, will form the basis of the UK's National Action Plan required under the terms of Renewable Energy Directive (2009/28/EC). The Strategy sets out the path required for the UK to meet its legally binding target to ensure that 15% of our energy (across electricity, heat and transport) comes from renewable sources by 2020. It makes it clear that achievement of such a target will only be possible with strong, co-ordinated efforts from a dynamic combination of central, regional and local Government and the Devolved Administrations, including Northern Ireland, as well as other public groups, the private sector and dedicated communities.

Sustainable Development Strategy

2.9 'First Steps Towards Sustainability – A Sustainable Development Strategy for Northern Ireland' (SDS) recognises that Northern Ireland has enormous potential to develop renewable energy sources as alternatives to burning coal, oil or gas. A priority of the SDS is to foster opportunities and build on the existing successes and abilities of companies in Northern Ireland to develop innovative ideas and new technologies in this field.

2.10 The SDS contains challenging targets for Northern Ireland above those set at national and international levels for the reduction of greenhouse gas emissions and indicates important steps towards achieving these targets. These include ensuring that where technologically and economically feasible, beyond 2025, 40% of all electricity consumed in Northern Ireland is obtained from indigenous renewable energy sources with at least 25% of this being generated by non-wind technologies.

2.11 The SDS contains three strategic objectives on climate change and energy namely:

- to reduce greenhouse gas emissions, principally by promoting energy efficiency and the use of renewables;
- to establish Northern Ireland as a world class exemplar in the development and use of renewable energy; and
- to plan and prepare for climate change impacts in Northern Ireland.

2.12 The Implementation Plan for the SDS, was published in November 2006 and details the current actions being taken by government, and puts forward a series of commitments to meet the Strategy target of achieving a 25% reduction in Northern Ireland's greenhouse gas emissions against 1990 levels by 2025.

Other Government Strategies

2.13 In preparing this PPS, consideration has also been given to a number of other Government Strategies including the Northern Ireland Biodiversity Strategy (2002) published by the Northern Ireland Executive; the Department's Waste Management Strategy 2006-2020; the cross-departmental Bioenergy Action Plan 2009; and the Department for Agriculture and Rural Development Renewable Energy Action Plan 2007.

3.0 Policy Objectives

3.1 The aim of this Statement is to facilitate the siting of renewable energy generating facilities in appropriate locations within the built and natural environment in order to achieve Northern Ireland's renewable energy targets and to realise the benefits of renewable energy.

3.2 The objectives of the Statement are:

- to ensure that the environmental, landscape, visual and amenity impacts associated with or arising from renewable energy development are adequately addressed;
- to ensure adequate protection of the Region's built and natural, and cultural heritage features; and
- to facilitate the integration of renewable energy technology into the design, siting and layout of new development and promote greater application of the principles of Passive Solar Design.

4.0 Planning Policies

In exercise of its responsibility for planning control in Northern Ireland the Department assesses development proposals against all planning policies and other material considerations that are relevant to it.

The planning policies of this Statement must therefore be read together and in conjunction with the relevant contents of the existing development plans, other planning policy publications, including the Regional Development Strategy, and regard given to the contents of supplementary planning guidance documents.

The following policies set out the main considerations that the Department will take into account in assessing proposals for renewable energy and heat generating facilities. They also deal with the integration of renewable energy into buildings and the application of Passive Solar Design principles in new development. The provisions of these policies will prevail unless there is other overriding policy or material considerations that outweigh them and justify a contrary decision.

Policy RE 1

Renewable Energy Development

Development that generates energy from renewable resources will be permitted provided the proposal, and any associated buildings and infrastructure, will not result in an unacceptable adverse impact on:

(a) public safety, human health, or residential amenity;

(b) visual amenity and landscape character;

(c) biodiversity, nature conservation or built heritage interests;

(d) local natural resources, such as air quality or water quality; and

(e) public access to the countryside.

Proposals will be expected to be located at, or as close as possible to, the source of the resource needed for that particular technology, unless, in the case of a Combined Heat and Power scheme or a biomass heating scheme, it can be demonstrated that the benefits of the scheme outweigh the need for transportation and an end user is identified.

Where any project is likely to result in unavoidable damage during its installation, operation or decommissioning, the application will need to indicate how this will be minimised and mitigated, including details of any proposed compensatory measures, such as a habitat management plan or the creation of a new habitat. This matter will need to be agreed before planning permission is granted.

The wider environmental, economic and social benefits of all proposals for renewable energy projects are material considerations that will be given significant weight in determining whether planning permission should be granted.

The publication Best Practice Guidance to Planning Policy Statement 18 'Renewable Energy' will be taken into account in assessing proposals.

<u>Wind Energy Development</u>

Applications for wind energy development will also be required to demonstrate all of the following:

(i) that the development will not have an unacceptable impact on visual amenity or landscape character through: the number, scale, size and siting of turbines;

(ii) that the development has taken into consideration the cumulative impact of existing wind turbines, those which have permissions and those that are currently the subject of valid but undetermined applications;

(iii) that the development will not create a significant risk of landslide or bog burst;

(iv) **that no part of the development will give rise to unacceptable electromagnetic interference to communications installations; radar or air traffic control systems; emergency services communications; or other telecommunication systems;**

(v) **that no part of the development will have an unacceptable impact on roads, rail or aviation safety;**

(vi) **that the development will not cause significant harm to the safety or amenity of any sensitive receptors[1] (including future occupants of committed developments) arising from noise; shadow flicker; ice throw; and reflected light; and**

(vii) **that above-ground redundant plant (including turbines), buildings and associated infrastructure shall be removed and the site restored to an agreed standard appropriate to its location.**

Any development on active peatland will not be permitted unless there are imperative reasons of overriding public interest.

For wind farm development a separation distance of 10 times rotor diameter to occupied property, with a minimum distance not less than 500m, will generally apply.

The supplementary planning guidance '*Wind Energy Development in Northern Ireland's Landscapes'* will be taken into account in assessing all wind turbine proposals.

Justification and Amplification

4.1. Increased development of renewable energy resources is vital to facilitating the delivery of international and national commitments on both greenhouse gas emissions and renewable energy. It will also assist in greater diversity and security of energy supply. The Department will therefore support renewable energy proposals unless they would have unacceptable adverse effects which are not outweighed by the local and wider environmental, economic and social benefits of the development. This includes wider benefits arising from a clean, secure energy supply; reductions in greenhouse gases and other polluting emissions; and contributions towards meeting Northern Ireland's target for use of renewable energy sources.

4.2. This policy is intended to apply to all renewable energy technologies. Such technologies can be used at different scales ranging from those which contribute to the national grid, to micro-generation schemes which serve one property. Renewable resources can be used to supply

[1] For the purposes of this policy sensitive receptors are defined as habitable residential accommodation (although not necessarily occupied), hospitals, schools and churches.

Combined Heat and Power Schemes (CHP) to serve groups of properties, existing or new, including housing schemes.

4.3. Technologies are constantly being researched and developed. Developments utilising other renewable technologies, not presently viable, but which become viable will also be assessed against the requirements of Policy RE1.

4.4. Development proposals should demonstrate any environmental, economic and social benefits as well as how any environmental and social impacts have been minimised through careful consideration of location, scale, design and other measures.

Natural and Built Heritage Considerations

4.5. In all cases careful consideration will be given to the scale, siting, design and layout of the proposal. The significance of environmental effects may depend on the type and scale of the renewable energy development and the sensitivity of the location. As the sensitivity of location between and within different designated areas can vary, each proposal will be assessed against the specific reason for designation, taking into account uniqueness, beauty, and character of landscape, habitat and species, physiographic, geological, heritage and cultural features. Policy relating to these matters is set out in the Department's Planning Policy Statement 2 Planning and Nature Conservation and Planning Policy Statement 6 Planning Archaeology and the Built Heritage.

4.6. Where a renewable energy development is likely to have an adverse effect on the natural heritage or nature conservation interests, the Department will require developers to bring forward mitigation measures, and where appropriate the scope for compensatory measures may be considered. Further information on this matter is set out in PPS 2 Planning and Nature Conservation.

Peatland

4.7. Active peatland, comprising blanket and raised bog, ie peatland on which peat is currently forming and accumulating, is identified as a priority habitat for Europe in Annex 1 of the EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora (the 'Habitats Directive').

4.8. The cutting and drainage associated with the development of, in particular, wind turbines and their associated infrastructure, has the potential to severely impact on the hydrology of a large area of active bog.

4.9. In addition, development in peatland involves a risk of a mass of peat or bog movement, resulting in land slide or bog burst. Where development is proposed on peatland, the onus is on the developer to

provide comprehensive information identifying existing, potential and construction induced peat landslide hazards.

4.10. Where complete avoidance of risk is not possible the proposed design should be modified to incorporate engineering options for mitigation of risk. Development consent may be declined due to the level of hazard identified or where engineering solutions have the potential to significantly increase the level of disturbance, or drying out of the peat and release of carbon.

4.11. Where the hydrology of other peatland sites has been negatively impacted upon through previous interventions, measures may be taken to restore such areas to active peatland. In promoting mitigation/compensatory measures for renewable energy developments the Department may require developers to restore areas to active peatland that are within or adjacent to the development site.

Technology appropriate location

4.12. Renewable energy resources, such as hydro or wind, can usually be developed only where they occur and some degree of impact may be unavoidable. In relation to wind energy, this can only be exploited where wind speeds are sufficiently fast. By its very nature the wind resource is likely to be greatest in upland areas, which may be particularly sensitive in terms of their landscape and nature conservation value. It is also recognised that larger-scale wind energy developments are likely to be visible over distances. However, the impacts associated with such forms of renewable energy development may be considered acceptable for example because they are minor or because mitigation measures may be put in place.

Landscape and Visual Effects of Renewable Energy Development

4.13. The landscape and visual effects of particular renewable energy developments will vary on a case by case basis according to the type of development, its location and the landscape setting of the proposed development. Some of these effects may be minimised through appropriate siting, design and landscaping schemes, depending on the size and type of development proposed. To assist assessment by the Department proposals should be accompanied by objective descriptive material and analysis wherever possible even though the final decision on the visual and landscape effects will be made by professional judgement.

4.14. Of all renewable technologies, wind turbines are likely to have the greatest visual and landscape effects. However, in assessing planning applications, the Department recognises that the impact of turbines on the landscape will vary according to the size and number of turbines and the type of landscape involved, and that some of these impacts

may be temporary if conditions are attached to planning permissions which require the future decommissioning of turbines.

4.15. The document 'Wind Energy Development in Northern Ireland's Landscapes' (SPG), published by the Northern Ireland Environment Agency identifies landscape characteristics that may be sensitive to wind turbine development. This document provides supplementary planning guidance on the landscape and visual analysis process, and the indicative type of development that may be appropriate. While the SPG will be taken into account in assessing all wind turbine proposals it is not intended to be prescriptive.

Decommissioning

4.16. In relation to renewable energy developments which become redundant, such as wind farms, applicants will be required to provide details on future decommissioning. This should include proposals for site restoration - generally to a condition which is as close as possible to its original state as appropriate to its location. The Department will use planning conditions (or a legal agreement where appropriate) to ensure the works necessary to restore the site to an agreed standard are undertaken.

4.17. For wind farm development, it is likely that the duration of the planning permission will be linked to the expected operational life of the turbines. However during this period, proposals may be forthcoming to extend the life of the project by re-equipping or to replace the original turbines with new ones. While there are obvious advantages in utilising established sites, such cases will have to be determined on their individual merit and in the light of the then prevailing policy and other relevant considerations

Information Requirements

4.18. Certain renewable energy developments, depending on their scale or location, may require a formal Environmental Impact Assessment (EIA) under the provisions of the Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 1999. Further information on the need for EIA for the various renewable energy technologies is set out in the *Best Practice Guidance to Planning Policy Statement 18 'Renewable Energy'*. In addition, where such development is located in a "sensitive area"[2], EIA will also be required if it is likely to have a significant effect on the environment. Development Control Advice Note 10 Environmental Impact Assessment provides general guidance for prospective developers on this matter and highlights requirements in

[2] Regulation 3 of the Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 1999 defines a sensitive area as: an Area of Special Scientific Interest (ASSI); an Area of Outstanding Natural Beauty (AONB); a National Park; a World Heritage Site; a scheduled Monument; or European Sites as defined in regulation 9 of the Conservation (Natural Habitats, etc,) Regulations (Northern Ireland) 1995 such as a Special Protection Area (SPA) or a Special Area of Conservation (SAC).

relation to procedures to be followed where projects in Northern Ireland are likely to have a significant effect on the Republic of Ireland.

4.19. Where renewable energy development does not fall within the requirements of the EIA Regulations, the Department will still expect an assessment of the environmental effects of the development to be submitted with any application. The level of detail required should reflect the scale of the technology employed and take account of its location. For small scale projects and micro-generation schemes a short report prepared by the applicant, will normally suffice. The most significant environmental effects in such cases will generally relate to the impact of any noise or emissions on neighbouring properties. For larger scale projects, developers will also be expected to outline the benefits arising from the development in terms of the energy produced in order to enable a balanced assessment of the proposal to be carried out.

4.20. The Department would also draw the attention of prospective developers of renewable energy projects to the Conservation (Natural Habitats, etc) Regulations (Northern Ireland) 1995. Under these Regulations the Department, as the "competent authority", is required to undertake an Appropriate Assessment of any proposal that has the potential to significantly affect a European Site, either directly or indirectly. In such cases developers must provide such information as the Department may reasonably require for the purposes of this Assessment. Further information on Appropriate Assessment is contained in the publication: Habitats Regulations Guidance Notes for Competent Authorities, Northern Ireland Environment Agency September 2002. It should be noted that under the provisions of Planning Policy Statement 2, that Appropriate Assessment may be required for renewable energy proposals that have the potential to significantly affect other Sites of International Nature Conservation Importance[3].

4.21. The Department would stress that failure to supply adequate environmental information to accompany planning applications for renewable energy projects, in particular large scale schemes such as windfarms, is a key cause of delay in determining such proposals.

[3] Special Protection Areas (including potential SPAs), Special Areas of Conservation (including candidate SACs), Sites of Community Importance and Ramsar Sites.

Policy RE 2
Integrated Renewable Energy and Passive Solar Design

Planning permission will be granted for a development proposal which integrates renewable energy technology including micro-generation, and Passive Solar Design (PSD) in its layout, siting and design, where it meets the provisions of Policy RE1 and provided the technology is appropriate to the location in terms of any visual or amenity impact it may have.

The following types of new development provide the greatest opportunity for maximising the benefits that can be derived from integrated renewable technology and/or PSD:

- **large-scale urban development (generally defined for the purposes of this policy as a site of 1ha or greater or a building of 5,000m^2 or greater);**
- **public sector development; and**
- **development in the countryside including individual dwellings.**

Justification and Amplification

4.22. As part of its overall efforts to promote renewable energy and enhance energy efficiency, the Department wishes to facilitate and encourage greater integration of renewable energy technologies, both in the design of new buildings and through the appropriate retrofitting of such technologies to existing buildings. For many buildings this will mean increased consideration of the benefits of small-scale renewable energy technologies (often referred to as 'micro-generation'). In addition it will entail greater consideration of complementary measures in the design of new buildings, such as the application of Passive Solar Design principles, to help achieve energy gains.

Micro-generation

4.23. Micro-generation is widely accepted to be the production of heat (less than 45 kW capacity) and/or electricity (less than 50kW capacity) from low or zero carbon energy sources. In addition to the carbon benefits, increased use of micro-generation plays an important part in diversifying our energy mix and ensuring security of energy supply. It can allow energy to be produced and consumed locally, help alleviate fuel poverty (especially in off-gas network areas) and play a part in meeting renewable energy targets.

4.24. Some forms of micro-generation development currently benefit from permitted development rights under the Planning (General Development) Order (Northern Ireland) 1993 and therefore do not

require an application for planning permission. Planning Service Information Leaflet 12 published in August 2006 provides guidance to householders on the extent to which small scale renewable energy development could currently be permitted development.

4.25. To further promote the use of micro-generation, the Department is reviewing permitted development for small scale renewable energy development for both domestic and non-domestic premises.

Passive Solar Design

4.26. Passive Solar Design (PSD) refers to the use of solar energy for the heating and cooling of buildings. Using this approach, the building itself or some part of it will take advantage of the natural energy in materials and air created by exposure to the sun. PSD needs to be considered at the design stage as it provides effectively a one-off opportunity to save energy during the lifetime of a building, generally at no cost. In modern housing the potential to save up to 20–25% of heating and lighting energy can be accrued by the application of PSD principles.

4.27. Optimising use of natural heat and light through PSD can displace energy which would otherwise have been generated from fossil fuel sources. Solar heated air and wind can also be used in natural ventilation or cooling systems. Planning decisions on site selection, road access arrangements, building orientation and spacing and landscape design can all influence the ability of new development to employ PSD techniques effectively. PSD can be used in conjunction with other efficiency measures including increasing insulation, double glazing, draught proofing, use of energy efficient appliances and fittings, efficient heating controls and condensing boilers to meet requirements set out in Building Regulations.

4.28. Further information and best practice guidance on PSD is set out in the *Best Practice Guidance to Planning Policy Statement 18 'Renewable Energy'*. Attention is also drawn to the Energy Saving Trust publication (GIR27) Passive Solar Estate Layout – General Information Report 27 (1997). This document can be accessed through the Energy Saving Trust's website: www.energysavingtrust.org.uk.