



## Belfast City Council

<b>Report to:</b>	Development Committee
<b>Subject:</b>	Response to Draft Planning Policy Statement 18: Renewable Energy
<b>Date:</b>	21 February 2008
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### Relevant Background Information

Draft Planning Policy Statement (PPS) 18 - 'Renewable Energy' was published for public consultation by the Planning and Environmental Policy Group of the Department of the Environment, on 23 November 2007. This policy is intended to supersede Policy PSU12 of the Departments 'Planning Strategy for Rural Northern Ireland'. The consultation period for Draft PPS18 closes on Friday 21 March 2008.

The aim of PPS 18 is to encourage and facilitate the provision of renewable energy and heat generating facilities in appropriate locations within the built and natural environment. PSU12 is considered insufficiently detailed to take account of the different forms of renewable energy development. More explicit guidance is required by the public to allow planning proposals to be better tailored to requirements of the Planning Service.

At present the NI Planning Service is undertaking a review of permitted development rights for small scale renewable development (micro-generation). This review could potentially remove the requirement to apply for planning permission for many small domestic renewable energy schemes. This review is expected to complete before the adoption of PPS18.

### Key Issues

Draft PPS18 – 'Renewable Energy' has two policies Renewable Energy 1 and Renewable Energy 2. Policy RE1 relates the general principles of development and additional assessment criteria for wind energy development. Policy RE2 relates exclusively to passive solar design and the necessity for all new public sector development, large-scale urban development and dwellings in the countryside to demonstrate what consideration has been given to Passive Solar Design principles in the layout, siting and design of their proposals. Annex 1 and 2 provide information and best practice guidance for each form of renewable energy development. Annex 3 discusses in detail the community benefits arising from renewable energy development. A summary of PPS 18 is attached in **Appendix 2**.

Belfast City Council recognises the importance of a comprehensive planning policy for the future of renewable energy development. Renewable energy developments are vitally

important in limiting environmental damage and the promotion of such development is supported by BCC. Such development should however, be rigorously assessed to limit the impact upon residential and visual amenity.

Belfast City Council would be concerned with any attempt at piecemeal legislation, which will deal solely with renewable energy in the narrow context of planning; as such legislation could detrimentally impact upon other industries such as construction and eventually on the end-user or consumers/ residents.

Draft PPS18 provides an opportunity for the Planning Service, District Councils and other interested parties to undertake a comprehensive review of all issues surrounding climate change, renewable energy and reducing carbon emissions. The Council is of the view that Draft PPS 18 provides a good basis for more substantial debate inclusive of all parties regarding what we can all do to improve the built and natural environment in response to the threat of Climate Change.

The draft Council response relates to a number of issues including;

- the development plan process
- air quality monitoring
- methodologies for the acoustic impacts of development
- green house gas mitigation and
- the cost benefit of passive solar design principles

The latter two issues consider the overlap between the Draft PPS 18 with the Building Regulations particularly in light of the introduction of Part F Technical Booklet on (Conservation of Fuel and Power) which came into operation on the 30 November 2006 by virtue of The Building (Amendment) Regulations (Northern Ireland) 2006. In addition to the recent decision from the Minister of Finance and Personnel to set a target of a further 25% reduction in CO<sub>2</sub> emission from buildings.

The proposed responsibilities and work regarding solar passive designs may cause an obvious overlap between the work of the Planning Service and that of the Belfast City Council's Building Control Service. This issue requires further consideration and discussion on whether work in this area will necessitate joint working arrangements being created between the Council and the Planning Service to ensure passive design conditions are properly enforced at the planning and construction stages of any development.

The Council would consider it appropriate for the PPS to contain policy which requires local development plans to assess the potential development opportunities in their area for renewable energy technologies. The Draft Belfast Metropolitan Area Plan 2015 does not contain any commitment to the goals of renewable energy or guidance as to where large scale renewable energy development would be acceptable.

## **Resource Implications**

### Financial

No additional direct financial implications are involved with these recommendations

In relation to the recommendations there may be a future requirement or need for joint working arrangements to be established as outlined in the main body of this report. This possible joint approach may have staff and resources implications for the Building Control Service, who would carry out such work on behalf of the Council.

### Human Resources

There may in the future need to be joint working arrangements set up between the Planning Service and the Council which may have staff resource implications.

### Asset and Other Implications

No additional asset implications are involved with these recommendations.

### **Recommendations**

Members are asked to consider the content of the proposed draft response to PPS18, as set out in **Appendix 1**, and if appropriate endorse this as the formal response to the NI Planning Service consultation.

### **Documents Attached**

**Appendix 1** - Draft Response to Draft PPS18 – ‘Renewable Energy’  
**Appendix 2** - Summary of PPS18

### **Key to Abbreviations**

**PPS** - Planning Policy Statement

# Appendix 1

## **Draft Response to Draft PPS 18 – ‘Renewable Energy’**

The main policy objective of draft PP18 is:

**“to encourage and facilitate the provision and siting of renewable energy generating facilities in appropriate locations within the built and natural environment”.**

Belfast City Council strongly supports draft PPS18 and recognises the Regional Development Strategies (2025) commitment to address the causes and effects of climate change, which will have implications for lifestyles and the form of development in the future.

Belfast City Council agrees that strategic planning, to deal with key impacts that may arise from climate change, will be more cost effective than taking retrospective action.

In general terms draft PPS18 is to be welcomed as it provides up-to-date guidance on renewable energy developments and re-affirms the Departments commitment to ensuring developments are guided to appropriate locations. As a consequence it reflects the balance required to accommodate renewable energy developments.

However, the Council has concerns in relation to the processing times of applications for renewable energy development. Draft PPS18 indicates that extensive consultation will be undertaken by the NI Planning Service in the assessment of renewable energy development, in particular for wind turbines. The standard consultee turn-around time is normally 14 working days, however many consultee’s can take much longer to respond due to staffing resources, lengthening the overall assessment time.

Many domestic renewable energy schemes are subsidised via schemes such as ‘the Environment and Renewable Energy Fund Household Programme’ and these schemes are dependant on the applicant being successful with their planning application. Delays in receiving planning permission may lead to funding delays.

Belfast City Council supports the structure and clarity of **Policies RE1 & RE2** in providing much greater detail of the criteria for assessment of planning applications by the Department. The greater degree of guidance and accessibility to the public will potentially facilitate a wider up-take of renewable energy schemes.

### **Development Plans and Renewable Energy Commitment**

Many local authorities throughout the UK have sought to include policies in their area plans which require new development to incorporate renewable energy and energy efficiency. The Belfast Metropolitan Area Plan 2015 does not contain any commitment to the goals of renewable energy or guidance as to where large scale renewable energy development would be acceptable. For example the siting of wind farms which can be controversial as many residents in the locality feel that it may damage visual and residential amenity, should ideally have been considered within an area plan. Belfast City Council considers that the identification of suitable sites within an area plan reinforces renewable energy policies and their implementation.

## **Policy RE2 - Integrated Renewable Energy and Passive Solar Design**

### **Passive Solar Design**

The Building (Amendment) Regulations (Northern Ireland) 2006, introduced increased minimum legal requirements for the attainment of energy conservation and thus a reduction in CO<sub>2</sub> emissions from buildings; these were enacted on the 30th November 2006. These changes were significant and the process of adaptation is continuing. Notwithstanding the above, draft PPS 18 now stipulates that consideration must be given to Passive Solar design principles in the layout, siting and design of:

- All public sector development;
- 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<sup>2</sup> or greater); and
- Dwellings in the countryside.

The regulatory impact assessment for The Building (Amendment) Regulations (Northern Ireland) 2006 when they were introduced, estimated that there would be an increase of cost in complying with the European directive in respect of the conservation of energy within buildings. It is accepted across the construction industry that compliance with this directive resulted in a rise in the construction costs of buildings.

The Council recommends that in the introduction of policy a balance is sought between increased costs and the anticipated return. This balance should seek to ensure that policy and practice develop in such a way as to not to overburden or deter potential investment in the Northern Ireland economy.

### **Passive Solar Design**

The Council would request greater clarification and evidence on the suitability of Passive Solar Design in Northern Ireland. It is a seasonal technology, which relies upon diffuse sun rays and for a large portion of the year in Ireland, solar impacts are limited. In these circumstances the design solution requires careful consideration to ensure that the seasonality is recognised.

Further clarification may also be required in relation to the implications for future developments in the vicinity of buildings which have passive solar equipment installations. Differentials in building heights and orientations in close urban proximity raise implications for the potential for development or redevelopment on adjacent properties which may impact upon or shadow the solar panel. It is not clear how this may restrict future development potential, in the vicinity of passive solar builds, or influence the decisions to invest in such technology where the long term benefits may not be controlled or protected from adverse implications from adjacent development.

Page 110 of the draft PPS18 lists the components of the PSD toolkit which may be employed. The Council would request clarification on the weight afforded to each element in terms of the potential contributions to CO<sub>2</sub> reduction.

### **Density and Brownfield development**

The density of housing units in any new urban residential development may be affected by the need to apply the PSD principles and this may contradict the ethos of the 'Compact City' concept, which advocates the containment of urban development to avoid urban sprawl in to the surrounding Greenfield areas. In addition, PSD relies on development being orientated to maximise solar gain, whilst brownfield development in an existing urban areas may be constrained by the immediate environment and buildings surrounding the site. The application of PSD within urban settlements could if inappropriately applied

contribute to a reduction in housing density and lead to increased pressure to development beyond the greenbelt.

**PSD Implementation - Increased Development costs imposed on new developments:**

In addition to the costs which are likely to be encountered by public sector development, the potential for increased costs in relation to residential development could be significant within a market, which has experienced a significant increase in unit costs. The development industry, until the market adjusts to such changes, is likely to seek to pass on the costs of renewable energy elements included in a new home such as solar panels or air source heat pumps. As this will further increase the cost of home ownership the Council would welcome research into the assessment or prediction of what the likely offset will be for purchasers of houses, which use energy from renewable sources.

**Role of Building Control**

Building regulations, in the main are a set of performance based standards which determine the minimum legal requirement at a point in time for the construction of our built environment. The regulations specify the outcomes and outputs developers should require for buildings and they allow a flexibility for designers in terms of what they intend to build.

Technical booklet Part F1 and F2 of these regulations currently sets out criteria for developers to improve energy conservation in buildings and already covers the effect of passive solar design. The council believes that Draft PPS18 in this regard could be considered to run contrary to what is contained within the Building Regulations as it seeks to introduce prescriptive requirements for passive solar design with no regard to the outcome or effect of these requirements on design considerations.

The Council would recommend that Passive Solar design be retained within the auspices of the building regulations for assessment by those who have technical capability in determining the outcome of the design features on the environment. We would also recommend that the designers be afforded the freedom to design for site specific aspect of their building and that the PPS be amended to allow greater flexibility in considering the visual impact, where it incorporates passive solar design features as a method of compliance with the building regulation requirements.

**CO2 Emission Target**

Although Draft PPS18 specifies that new developments should incorporate elements of Passive Solar Design it does not recommend the establishment of a minimum requirement for renewable provision in new developments and a target for new developments to cut their CO<sub>2</sub> emissions. Belfast City Council is committed to reducing its own carbon emissions in line with the UK government's domestic target of a 20% reduction below 1990 levels by 2010<sup>1</sup>. The establishment of targets requires careful consideration as clarity would be essential both in relation to the basis for any target and the appropriate legislative control between Planning and Building Control. In addition a baseline position would be required in order to determine percentage reduction as this is a changing position that could be difficult to regulate or enforce. The Council would recommend that the limits of CO<sub>2</sub> emissions stay within the Building Regulations to ensure clarity.

**Resources**

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<sup>1</sup> Belfast City Council, Carbon Management Action Plan, Local Authority Carbon Management Programme 2004. ([www.carbontrust.co.uk/NR/rdonlyres](http://www.carbontrust.co.uk/NR/rdonlyres))

In terms of resources the Council believes that it is essential that the Planning Service ensures that it is 'fit for purpose' in terms of staffing and technical capacity to enable them to administer the complexities of the technical issues to be assessed as a result of renewable energy developments.

### **Enforcement of PSD Principles**

Point 4.44 states that "Passive Solar Design concerns the fundamental design of a building; it cannot easily be dealt with by way of planning conditions". However the enforcement of planning conditions relating to PSD principles must be as enforceable any other cosmetic or integral design element of a building. The supporting report written to accompany any application which includes PSD principles should be incorporated as an enforceable element of the planning application or else linked to building regulations approval.

This could be made feasible if the applicant detailed the utilised PSD principles on both the supporting statement and the building plans. Under such an approach any deviation from these principles could result in enforcement action requiring the modification of the building or proposed elements.

The Council would support the need for the effective enforcement of passive solar design principles. There may be an opportunity to exploit a functional overlap and potential for the Planning Service to enter joint working arrangements with the Councils, in particular the Building Control Service, to ensure that these principles are adhered to during construction. This potential early intervention and monitoring is critical as non-compliance could result in the necessity for action to secure the alteration or reconstruction of a building. PPS 18 could, in these circumstances lead to a situation whereby planning conditions made in respect of a building could be enforceable under the building regulations – this will require further discussion and exploration.

### **Limited Empirical Data of effectiveness of PSD**

Draft PPS18 does not supply any observed or statistical data relating to the effectiveness of PSD principles. Rather the policy appears to approach the issue in broad terms in relation to effectiveness of PSD principles, without providing evidence of how this methodology had worked effectively when applied previously in Northern Ireland or the wider UK. Indeed PSD principles are at best a complementary measure to other renewable energy schemes and perhaps the emphasis of the policy should be on the incorporation of substantive renewable energy technologies into new developments such as:

- Wind turbine
- Solar Photovoltaic
- Solar Water Systems
- Ground source heat pumps
- Biomass

Evidence suggests that with this active technology there is a more concerted effort toward achieving an individual household reduction of 10% in CO<sup>2</sup> emissions whilst it is also accepted as being more relevant to small scale developments. The Council would additionally ask for more empirical data to clarify the relationship between a cost benefit analysis in relation to the application of the technology and the reduction of CO<sub>2</sub> emissions.



### **Permitted Development Rights**

In regard to permitted development rights, a review of existing provision in Northern Ireland is currently underway by the NI Planning Service (Review of Permitted Development Rights for Small Scale Renewable Energy Development – commenced January 2007) and it is possible that residential properties will see their permitted development rights in relation to renewable energy proposals extended. At present there are very few circumstances under which renewable energy development could be incorporated into a home without requiring an application for planning permission. Rather than simply re-interpret existing planning legislation to allow renewable energy developments, there is a need for adequate and comprehensive permitted development rights related specifically to renewable energy to be recorded onto a comprehensive database maintained to supplement Building Control Service records which may in the future assist with any joint working arrangements.

However with the extension of PD rights there must be an appropriate balance between permitted development and the need to restrict those forms of renewable development which could impact upon the residential or visual amenities of residential developments. It is reasonable to consider that it is unacceptable for the amenity of neighbours to be reduced by excessive and intrusive vibration or noise from a micro-generation device

### **Community Benefits (Arising out of the development of large scale renewable energy projects)**

The creation of a format by which local communities can benefit from the development of large scale renewable energy projects is to be welcomed. The offsetting of potential negative externalities created by for example wind turbines which can detract from visual amenity (view) is necessary. However the critical issue is what format such compensation should take. Draft PPS18 suggests that compensation could take the form of a financial payment, the construction of a community facility or even the use of contractor services as needed. However the policy states that these agreements are entirely outside of the remit of the Planning Service and will not influence the assessment of any planning application. It is difficult to concur with this conclusion when a proposed development is considered to have a direct impact and the proposed amelioration may include proposals that have direct land use implications and require separate planning consents.

### **Community Benefits - Article 40 Agreements**

Article 40 of the Planning (Northern Ireland) Order 1991 enables the Department to enter into Planning Agreements with any person who has an estate in that land for the purpose of facilitating, regulating or restricting the development or use of the land either permanently or for a specified period of time. This legislation should be employed by the department as the most appropriate vehicle for securing community benefits which arise from development. Utilising this legislation would ensure that community benefits are negotiated with the supervision of the Department and place less of an onus on the community to liaise with a developer.

The Council would seek further evidence that the generation of electrical power in one area which will supply another area, will not be disproportionately harmful to the community in which the technology is sited in terms of the direct local environmental impact on the host community.

Where such 'benefits' are outside of the Planning system and will not influence a planning application then Draft PPS18 should not need to state that developer offers are necessary. This issue gives rise to questions of who would be responsible for the assessment of the

appropriateness such developer contributions. If the policy states that the Planning Service will have no involvement in this issue then it cannot consider whether a scheme provides sufficient community benefits.

The Council considers that it would be more appropriate to account for developer contributions within the policy for large scale renewable energy development, and then to establish an assessment test for the contributions, or perhaps an independent assessment process. It must be acknowledged that there will be potentially negative or contradictory externalities arising from renewable energy developments, the most obvious being the impacts on natural landscapes or the immediate local environments. In such circumstances it is rational to assume that a developer would seek to offset this negative externality by compensating the local community.

### **Section B45 – Planning Issues (Economic Benefit to local community)**

Section B45 states that economic and social benefit to the communities will be given weight in assessing renewable energy proposals, particularly biomass energy crop production. Clarification is required as to the degree of weight carried by this factor. The justification of economic benefit to the local community could be used as a convenient pretext to override almost any negative effects of development. For example a scenario whereby a significant natural landscape is affected by a wind farm is justified because the local community benefits from a developer contribution or preferential electricity supply. The concept economic benefit has the potential to introduce uncertainty or confusion in regard to the balanced assessment of planning proposals. This issue should therefore be subject to further clarification as to the role economic benefit could play in the assessment of an application. It may be appropriate for each component of the planning policy criteria to be listed according to weight, for example:

1. Impact of residential amenity
2. Economic Benefit to local community
3. Impact on visual amenity
4. Road Traffic implications

This prioritisation of assessment criteria could not be applied equally in all development scenarios; this format would make planning assessment more predictable and less speculative.

## **Energy from Waste (Annex C)**

### **Landfill Gas**

Belfast City Council is committed to utilising its significant landfill gas reserves in the near future and therefore the decision not to include specific policy guidance in the main body of Draft PPS18 is disappointing. Landfill gas in particular offers an opportunity to derive energy in the short to medium term from a diminishing source.

The Renewable Obligation (NIRO) compels licensed electricity suppliers such as NIE to source an increasing proportion of electricity from renewable sources. Organisations such as Belfast City Council would seek to provide energy to NIE by utilising Renewable Obligation Certificates (ROC's), but require planning guidance in the form of planning policy statements to add a degree of certainty to future renewable energy planning. The Council as the owner of the Dargan Road landfill facility on the North Foreshore of Belfast Lough would seek within the near future to utilise the large amount of landfill gas which has accumulated on the site. This would result in the Council becoming a renewable energy generator selling electricity to NIE through the Renewable Obligation Certificates scheme. The council in the absence of a generation facility is currently flaring this gas at a

rate of 2500 m<sup>3</sup> per hour, which is sufficient to produce four megawatts of electricity and power up to 5000 homes.

Although Draft PPS18 does mention landfill gas in Annex C, it does not provide specific guidance on developments which utilise energy from waste within the main body of the policy. This is particularly important as this energy is derived from a diminishing source as landfilling operations across the province have in compliance with EU Policy been curtailed in recent years. The council would advocate policy guidance which provides a clear and definitive approach to development to extract energy from waste. The Council would reiterate the need to assist renewable energy producers by providing explicit development guidance, rather than providing generalised information in the annex of the document.

### **Energy from Waste (Excluded Conventional Technologies)**

Belfast City Council considers that the definition of renewable energy employed in the composition of Draft PPS18 is inappropriate in the context of European and UK policies. The guidance on energy from waste in Annex C is exclusive and does not consider conventional Energy Recovery Incineration (ERI). ERI is the combustion of waste under controlled conditions in which the heat released is recovered for a beneficial purpose. This may be to provide steam or hot water for industrial or domestic users, or for electricity generation. Combined heat and power (CHP) incinerators provide both heat and electricity. The fuel value (calorific value) of household waste is about one third that of coal: as a rough guide, for every 100,000 tonnes of ERI capacity about 7 megawatts (MW) of electricity could be exported to the grid to meet the needs of about 11,000 homes. Rather than exclude this method of recovering energy from waste, the Department should condition such developments, to ensure that thermal and electrical efficiency and / or combined heat and power targets are maintained. To exclude such development from consideration in Draft PPS18 would result in the loss of a significant amount of energy which can be provided if sufficiently monitored, with minimised environmental effects.

### **Biomass**

#### **Wood Burning Fuel Pellets - Delivery distances from supplier to consumer:**

The number of pellet burning boilers installed in Northern Ireland has increased rapidly and this has led to fuel supply issues. A significant proportion of fuel pellets used in Northern Ireland are imported, which does not correspond with Policy RE1 which states that 'proposals will be expected to be located at, or as close as possible to, the source of the resource needed for that particular technology'. It is likely that suppliers will need to travel more than an average distance of 40 km to deliver fuel pellets which adds to the total carbon cost of the development.

Heating with wood pellets, a renewable fuel, is seen as an environmentally friendly alternative to fossil fuel heating, however wood pellet production and supply in the UK is still a key barrier to widespread uptake of wood pellet heating. A survey carried out by CONNESS GmbH, Austria and ECONERGY Ltd, Great Britain showed that in 2004 only ten wood pellet mills operated across the UK<sup>2</sup>. This figure has increased however there is still a significant shortfall in domestic wood pellet production. Supply chain cost is an important factor in the entire wood pellet cost and that wood pellet produced locally brings lowest supply cost.

As a result of a domestic production shortfall, wood pellets have been imported from the Baltic countries which are lower in price than UK produced pellets, although transported

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<sup>2</sup> Schuler, Anton Leander 'Developing a wood pellet fuel sector in South Yorkshire', ([www.wood-fuel.org.uk](http://www.wood-fuel.org.uk))

over long distances. This travel associated with supply leads to an increase in the 'carbon cost' of the technology which detracts from the overall goals of reducing CO2 emission.

There are many reasons to support the development of the UK bio fuels industry for example, demonstrated carbon savings achievable in the transport fuel sector; increased UK fuel security and benefits to the rural economy. However the question of whether there is sufficient spare agricultural land in Northern Ireland to meet the supply for the forthcoming demand for bio fuels should be addressed. Another key target in reducing carbon emissions is to attain a high level of self-sufficiency in the provision of food and other agricultural products.

### **Greenhouse Gas Mitigation**

A further planning issue listed in section B45 is Greenhouse Gas Mitigation (GHGs). This is a complex issue, which must be subject to careful assessment. In regard to the calculation of greenhouse gas mitigation it is not clear whether this merely related to the carbon footprint associated with the activity of fuel burning or the mitigation associated with the production and delivery of fuel crops. The concept of total carbon cost would be a more appropriate measurement.

In regard to the assessment of the mitigation proposals, the Council would seek clarification as to whether or not the Department intend to carry out and publish such a technical assessment as part of the planning application assessment report.

### **Protection of Built and Natural Heritage**

Draft PPS18 demonstrates good awareness of issues relating to the impact of renewable energy installations on the archaeological and built heritage and on aesthetic quality. Within the overall context of promoting sustainability with planning policy, it is worth noting that in terms of 'total carbon cost' there are substantial environmental benefits to perseveration of the historic or older building stock over new build. This is demonstrable despite the ability to reduce ongoing energy consumption in newer developments. Given the widely held public perception that new build is superior this is perhaps a point that needs to be more clearly emphasised.

In respect of the protection of built heritage and ancient monuments in the natural landscape, rigorous planning assessment must be undertaken to safeguard against the accumulation of for example wind turbines in the setting of a significant historical building/monument. Such assessment would require special consideration in line with Planning Policy Statement 6: 'Planning, Archaeology and the Built Heritage' and PPS 6 Addendum: 'Areas of Townscape Character'.

### **Protection of Air Quality in Belfast**

#### **Response by Belfast City Council's Environment Protection Unit**

In response to the recently published Draft Planning Policy Statement 18 - 'Renewable Energy' The Environmental Protection Unit wish to submit the following comments.

The Environmental Protection Unit within the Council's Environmental Health Department is a statutory consultee for the Planning Service for any development that has the potential to have an impact on air quality within Belfast Council boundary. The Unit is also tasked to carry out the duties under the Environment (NI) Order 2002 that places a responsibility on local authorities to monitor, review and assess air quality within its boundary. Consequently, the Unit has developed a detailed understanding and knowledge of air quality issues that pose a risk to human health. It is therefore considered that the Unit has

the necessary skills and experience to comment on the implications of the Draft Planning Policy Statement 18 and its potential impact on air quality.

The Unit welcomes the over riding objective to “encourage and facilitate the provision and siting of renewable energy generating facilities in appropriate locations within the built and natural environment”. It recognises the role that renewable energy has in reducing green house gas emissions and assisting in diversifying Northern Ireland’s energy supplies.

The Unit would like to draw the Department of the Environment’s attention to the ten areas within Northern Ireland where fine particulates (PM<sup>10</sup>) exceed or are predicted to exceed the 2004 National Air Quality Strategy Objective. One of these areas falls within the Belfast City Council area and encompasses the M1-Westlink corridor. This area was predicted to exceed the annual mean objective (40 ug/m<sup>3</sup>) and the 24 hour mean objective (50 ug/m<sup>3</sup> not to be exceeded more than 35 times a year). Recent monitoring within this area has confirmed these predictions and to date (December 2007) 37 days have seen concentrations in excess of 50 ug/m<sup>3</sup>. These levels of fine particulates are some of the highest levels monitored anywhere in the UK.

The Air Quality Standards Regulation (Northern Ireland) 2007 introduced a further objective for ultra fine particulates (PM<sup>2.5</sup>). This objective sets a target for exposure reduction of 20% in concentrations at urban background sites between the years 2010 and 2020. By the year 2020 PM<sup>2.5</sup> annual means should not exceed 25 ug/m<sup>3</sup>. Responsibility for regional exposure reduction for PM<sup>2.5</sup> will fall upon the Department of the Environment (NI).

Eleven areas within Northern Ireland have been declared on the grounds that concentrations of nitrogen dioxide exceed or are predicted to exceed the 2005 National Air Quality Strategy Objective. Four of these areas occur within the Belfast City Council area. These areas are predicted to exceed the annual mean objective (40 ug/m<sup>3</sup>) and one area (the Westlink-M1 corridor) is also predicted to exceed the hourly mean (200 ug/m<sup>3</sup> not to be exceeded more than 18 times a year). Recent monitoring within this area has confirmed these predictions and to date (December 2007) the annual mean is 64 ug/m<sup>3</sup>, some 60% higher than the 2005 objective.

Belfast City Council is striving to meet the 2004, 2005 and 2007 objectives. In May 2006, the Belfast City Air Quality Action Plan was launched and identified 164 steps that would assist in the reduction of air quality pollutants across the city. It is the opinion of this Unit that developments involving combustion have the potential to significantly undermine these efforts and result in the failure to meet these objectives. Consequently, this Unit would consider the inappropriate siting of renewable energy generating facilities within Belfast City as a potential source of emissions that could have a direct impact on human health. This Unit therefore proposes that any new energy generating development should be subjected to a rigorous pre-assessment to determine the emissions to air and to demonstrate that these emissions have minimal adverse effect. This is particularly prevalent when considering biomass plant. Similarly, developments that attract vehicle movements have the potential to adversely impact air quality due to vehicle emissions. Consequently, any large scale biomass generators would require detailed assessment of not only the generator emissions but traffic generated emissions.

The Unit would also like to highlight that areas within Belfast City are designated as Smoke Control Areas and all new Biomass generators (regardless of size) would have to adhere to the Clean Air (Northern Ireland) Order 1981.

This Unit is highly supportive of any initiative to encourage and increase the amount of energy generation from renewable resources however the Planning Policy Statement 18

would benefit from clear statements and clarification on the balance required between the need to promote new energy schemes and to offset potentially negative environmental impacts.

### **Wind Farm noise Measurement**

Draft PPS18 states that (Building Regulation) BS4142 will not be the preferred method of assessment for noise levels generated from wind turbines. Amplification is required as to the methodology employed in preference to BS4142. 'The Assessment and Rating of Noise from Wind Farms' (ETSU-R-97), describes a framework for the measurement of wind farm noise and gives indicative noise levels calculated to offer a reasonable degree of protection to wind farm neighbours, without placing unreasonable restrictions on wind farm development. In addition, any acoustic measurement must take account of the construction or maintenance noise levels of a wind farm. Amplification is required within Draft PPS18 as to how an additional turbine is to be assessed in an existing factory setting, employing this methodology. Clarification is also required as to the role Belfast City Council will play as an expert environmental health consultant.

### **Compositional Errors in Document**

Error in document relating to Page 55 Paragraph A.122 refers to paragraph A.36 as containing additional information relevant to an EIA, however this is an error and A.122 should refer to A.35 instead.

Error in document relating to Page 36 Paragraph A.38 states that paragraph A.117 contains information relating to when an EIA is deemed necessary to accompany a development application. However paragraph A.123 details this information and A.117 relates to decommissioning.

# Appendix 2

## **SUMMARY**

### **Draft PPS18 - 'Renewable Energy'**

The main policy objective of draft PP18 is:

**“to encourage and facilitate the provision and siting of renewable energy generating facilities in appropriate locations within the built and natural environment”.**

The main objectives behind the policies are:

- To contribute to the alleviation of climate change through reducing greenhouse gas emissions;
- To contribute to the regional target of 12% of electricity generation by 2012, and 40% by 2025 from renewable energy sources;
- To assist the diversification of energy supply and a more competitive energy market;
- Encourage economic growth and rural diversification associated with the development of an indigenous renewable energy industry;
- To ensure that the environmental, landscape, visual and amenity impacts associated with renewable energy development are adequately addressed;
- To ensure appropriate protection of the Region’s built and natural, and cultural heritage features;
- To promote knowledge of and greater acceptance by the public of prospective renewable energy developments that are appropriately located;
- To foster greater community involvement in renewable energy projects and encourage use of community benefits; and
- Promote greater application of the principles of Passive Solar Design in the design, siting and layout of new development.

**Draft PPS18 – ‘Renewable Energy’** contains two policies **RE1 and RE2** and the remainder of the document is composed of **five annexes** which provide development control guidance for renewable development proposals, details of benefits to communities from renewable development, a list of stakeholder organisations and screening for the documents Equality Impact Assessment.

#### **Policy RE1 – ‘Renewable Energy Development’**

Policy RE1 – ‘Renewable Energy Development’ provides the underlying general principles of acceptable development. Broadly speaking, development which respects the following values will be acceptable to the Department:

- (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, including air and water quality; and
- (e) Public access to the countryside.



**Policy RE1** also states that:

- Proposals should be located as close as possible to the natural resource which is to be exploited. This minimises transportation costs or other externalities which could minimise net benefits. Combined Heat and power schemes will be exempted from this rule provided the benefits outweigh the associated costs.
- All applications for renewable energy development will be required to submit a detailed statement of the environmental effects of the proposal, including the amount of energy generated.
- An Environmental Impact Statement may be required depending upon the scale of the development.
- Permission will only be granted providing damage caused during installation is minimised, mitigated or compensated for
- In addition the wider environmental, economic and social benefits of all proposals for renewable energy development will be regarded as material considerations. Developers of large renewable energy schemes will be encouraged to provide community benefits to offset potential residential or visual amenity impacts.

### **Wind Energy Development**

Wind Energy Development is given particular attention due to its potential to disrupt residential and visual amenity.

Such developments are required to demonstrate the following:

(i) That the development will not have a unacceptable impact on visual amenity or landscape character through: the number, scale, size and siting of turbines; or the need for new transmission lines for connection to the electricity supply grid;

(ii) That the development will not impact significantly on peatland carbon stores if sited in or near a peatland habitat;

(iii) That the development has taken into consideration the cumulative impact of neighbouring wind turbines or wind farm development, existing or approved;

(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 the users of any regularly occupied building 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.

## **Policy RE2 – ‘Integrated Renewable Energy and Passive Solar Design’**

The Department wishes to encourage greater application of the principles of Passive Solar Design (PSD) through the planning system, while recognising this is likely to be constrained to an extent by building and location specific factors. Passive Solar development has of course been a traditional element of building construction for hundreds of years. The ability to orientate or design a building to capture natural sunlight.

To assist this process, applicants for the following types of development will be expected to demonstrate what consideration has been given to PSD principles in the layout, siting and design of their proposals:

- All public sector development;
- 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<sup>2</sup> or greater); and
- Dwellings in the countryside.

### **Annex 1 - Information and best practice guidance for renewable energy development proposals**

This annex is designed to facilitate applicants to more easily comply with the requirements of the Development Control process. It clearly indicates those elements of each form of renewable energy development which are acceptable and unacceptable. In addition detailed information is provided on the definition and various forms of equipment used to harness natural energy.

A. Wind Energy

B. Biomass

C. Energy from Waste (biological processes)

D. Energy from Waste (Thermal processes)

E. Small Hydro

F. Active Solar (Photovoltaics)

G. Solar Thermal (Solar Water Heating)

H. Ground, Water and Air Source Heat Pumps

### **ANNEX 2 - Passive Solar Design**

Annex 2 provides similar information to Annex 1 but from the perspective of the Passive Solar Design.

### **ANNEX 3 - Community benefits arising out of the development of wind farms and other large scale renewable energy projects in Northern Ireland**

1. To off-set the cost of additional public infrastructure necessary to accommodate a private renewable energy development, the developer may be requested to make an in-kind or financial contribution towards its provision.
2. An applicant / business may wish to enter into a legally binding agreement with third parties to deliver particular and agreed benefits to the community, to negate the effects of a renewable energy scheme. This concept is advocated by the Department as a means of arriving at a local consensus between developers and local residents.

Such benefits offered to local communities could take the form of one or more of:

- In-kind benefits such as the construction of a needed community facility;
- A lump sum financial payment for the benefit of the community;
- Annual payments to the community; and/or
- A commitment from the developer to use local labour and/or contractors/services wherever possible.

It is, however, considered to be essential that:

- Benefits are negotiated with appropriate and representative persons or bodies;
- Benefits are channelled through a regulated and properly constituted body or trust (this could include the local authority);
- Benefits are utilised for an agreed range of appropriate uses that would all fall within the definition of sustainable development;
- At least part of any annual payment benefits should be invested in carbon; and
- Emissions reduction measures in the local community.

### **ANNEX 4 – Stakeholder organisations**

A list of stakeholder organisations who have contributed to the formulation of Draft PPS18.

### **ANNEX 5 – Screening for Equality Impact Assessment - Draft Planning Policy Statement 18 ‘Renewable Energy’**

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