

ASSESSING PLANNING APPLICATIONS FOR WIND TURBINE DEVELOPMENTS

Supplementary Planning Guidance Note Ref: SPG.12 NLLP Policy EDI.3(A)2

Copies available from: Planning & Development, Fleming House, Cumbernauld G67 1JW or esdesign@northlan.gov.uk

INTRODUCTION

1. The Climate Change (Scotland) Act 2009 set out a legislative framework to reduce emissions associated with the unsustainable use of fossil fuels and placed additional duties on public bodies to deliver emission reduction targets in a sustainable manner. In September 2010, the Scottish Government increased their previous target of 50% generated electricity from renewable sources for 2020 to 80% by 2020, with Local Authorities charged with achieving these targets. There are key obligations set out within the UK Renewable Energy Strategy (UKRES) 2009.
2. Wind turbine developments can vary greatly in terms of size, scale and impact depending upon the location of the proposed development.
3. The UK Government introduced the Feed In Tariff Regulations (FIT) in April 2010. This allows individuals to claim back subsidy from levels of electricity created through solar, hydro, biomass or wind projects. This incentive is likely to increase the number of applications in North Lanarkshire for local scale turbine developments.

PURPOSE

1. Supplementary Planning Guidance is a material consideration in determining applications for planning permission. This Guidance sets out policies, criteria and other advice to assist in positively planning for all wind turbine developments in North Lanarkshire. Its aim is to explain the requirements of planning applications for wind turbine developments and to set out how the Council will deal with such applications.

It explains the factors that will be taken into account and seeks to provide clarity on what is not likely to be acceptable.

2. This guidance offers assistance to anyone with an interest in developing a wind turbine development in North Lanarkshire. The guidance will also:
 - assist potential developers searching for suitable sites,
 - incorporate the findings of a landscape character assessment undertaken on behalf of NLC which determined the likely capacity of each of the landscape character areas to accommodate wind turbine developments
 - guide developers in wind farm design including the number and height of turbines,
 - ensure that their location is reflective of the scale and character of the landscape within which they are proposed,
 - ensure developers submit the appropriate supporting information with their planning applications.



Greendykeside Turbines

The latest Supplementary Planning Guidance can be found online at:- www.northlanarkshire.gov.uk/spg

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The council will seek to ensure these principles are achieved through the development management process

A. POLICY CONTEXT

1. National Policy - The renewables industry in Scotland is guided by relevant national policies of the Climate Change (Scotland) Act 2009, the renewables action plans (<http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/renewables>) and national planning guidance contained within SPP (Scottish Planning Policy) (2010). These plans and guidance are supplemented by a series of online renewables advice including 'Onshore wind turbines' and 'Process for preparing spatial frameworks for wind farms.'

2. Strategic planning guidance is contained within the Glasgow & Clyde Valley Joint Structure Plan (4th Alteration 2009) Strategic Policy 8, Diagram 22, and Strategic Policy 9. Potential areas of search are identified as the focus for investment in significant wind farm developments over 20MW. Outside these areas, wind farm developments over 20MW raise strategic planning issues and require to be assessed against the relevant Structure Plan criteria. Under the Planning etc. (Scotland) Act 2006, the Structure Plan is being replaced by a Strategic Development Plan (SDP) for Glasgow & the Clyde Valley. In September 2010, the Main Issues Report (MIR) was published for consultation. This MIR has stated that landscape and cumulative impact are more appropriately dealt with at local level. The North Lanarkshire Wind Farm Search Areas have been devised using these two main assessment criteria. The Glasgow & Clyde Valley Joint Strategic Development Plan is due to be published in Summer 2011.

3. Local Policy - There are several policies in the Finalised Draft North Lanarkshire Local Plan approved by the Council on the 27th November 2008 which are relevant to all aspects of wind turbine developments: The main policy context is found under **EDI 3 A2**. This document represents the Supplementary Guidance referred to in **EDI 3 A2**. Other directly relevant policies are **NBE 3** and **DSP 4**. Aspects of wind turbine development would also require to be cross-referenced with and assessed against Policy **NBE 1**, **NBE 2** and all relevant Supplementary Guidance documents.

4. Any applications for windfarm developments with output capacity **exceeding 50MW** are determined by the Scottish Government under s.36 of the Electricity Act 1989. North Lanarkshire Council is a statutory consultee on those proposals submitted to the Scottish Government.

5. All applications under 50MW are determined by the Council under the Planning etc (Scotland) Act 2006. Irrespective of the scale of development, planning applications must be determined in accordance with the provisions of the Development Plan.

6. All planning authorities in Scotland are required to set out a spatial framework for onshore wind farms of over 20MW generating capacity and, if considered appropriate for those wind farm proposals of less than 20MW generating capacity. North Lanarkshire Council considers it appropriate that this SPG provides a spatial framework for all wind turbine developments within the Council area, irrespective of scale and output.

The Council will expect applications to comply with the Scottish Natural Heritage Guidance on Siting and Designing Windfarms - see www.snh.org.uk/pdfs/strategy/renewables/Guidance_Siting_Designing_windfarms.pdf

North Lanarkshire Local Plan

EDI 3 A2 Assessing Economic Development and Infrastructure Proposals – Utilities Development - Wind Farms

The Council supports in principle...all forms of renewable energy generation and telecommunications proposals, subject to criteria and SPG 12 Assessing Applications for Wind Turbine Developments:

- A detailed assessment (EIA and/or AA) to demonstrate no likely significant effect or no adverse effect on the site's integrity for development proposals outwith a Natura 2000 site.

- A detailed assessment of development located several km away from the boundary of a Natura 2000 site, particularly where there is connectivity between the proposed development and the designated site.

NBE 3 Assessing Development in the Green Belt and Rural Investment Area.

The Council will protect the character and promote development in the GB and RIA through restricting development to acceptable types, including:-

- generation of power from renewable sources.

Policy DSP 4 Quality of Development

Development will only be permitted where high standards of site planning sustainable design are achieved. Where appropriate, Wind farm proposals will need to demonstrate that:

1. an appraisal has been carried out of the existing character and features of the site and its setting - including: identity, connections, landscape, biodiversity, heritage or amenity value
2. existing on site rights of way or features of natural or historic environment interest (including stone buildings) will be safeguarded or enhanced - including: archaeological, historic environment, landscape features and wildlife interests
3. the proposed development takes account of the site appraisal and any evaluation of design options, and achieves a high quality development in terms of:

3c. Addressing energy, resources and waste issues in order to create a sustainable development with a low ecological footprint including: energy & water conservation; sustainable construction and drainage which minimises pollution; promoting health & wellbeing; reducing waste and resources used; storage, collection and composting of waste and recyclable materials, and measures which reduce CO2 emissions and encourage low and zero carbon approaches.

3d. mitigating any likely air quality, noise, or pollution impacts particularly in or adjacent to Air Quality Management Areas

3e. ensuring that water body status is protected and, where possible, enhanced. Status includes physical characteristics, so proposals such as culverting will only be considered where no other practical option exists. Foul water should connect to the public sewer - alternatives to this will only be permitted where no public system exists and the alternative does not pose an environmental risk. Sustainable Urban Drainage Systems should be adopted within site design and appropriate details require to be submitted with any planning application; and

3f. Integrating successfully into the local area and avoiding harm to the neighbouring amenity by relating well to the existing context and avoiding adverse impact on existing or proposed properties through overlooking, loss of privacy or amenity, overshadowing, noise, or disturbance

B. PRE-APPLICATION CONSIDERATIONS

1. It is recommended that all potential applicants of wind farm or turbine developments of any scale should contact Planning and Development Service for pre-application consultations at an early stage.

For National and Major scale developments Pre-Application consultation is required and applications must include a Pre-Application Community Consultation Report setting out how local people have been informed and involved in the preparation of the scheme and how their views have been taken into account in the submitted scheme.

Whilst formal Pre-Application Consultation is a requirement on National and Major Development Community engagement is encouraged for all wind turbine development.

All formal proposals will be subject to appropriate evaluation of visual, noise and other potential environmental impacts on sensitive receptors at or near application sites. Pre-application discussions, irrespective of size of turbines, will enable development constraints to be identified and enable developers to provide additional information in support of their planning application. SNH also welcomes involvement in pre-application discussions, particularly where proposals might affect European sites, SSSIs or raise natural heritage issues of national interest. Applicants/developers should combine three approaches towards forming a view on the likely sensitivity of a site at the pre-application stage:

- Desk-based study of existing information
- Appraisal of habitats and species likely to be present
- Reconnaissance survey

The use of all three approaches provides a picture of the level of natural heritage interest and informs the scale and type of survey necessary to conduct an adequate assessment of those impacts likely to be of significant environmental effect.

2. The capacity of the landscape to accept a single turbine or the cumulative effect of a group of turbines requires to be evaluated. The following information is regarded as useful to enable effective pre-application discussions to take place on cumulative impacts:

- Grid reference for proposals (per turbine)
- Draft representative viewpoints
- Description of turbines heights (hub and blade tip) and model
- Number of turbines
- Base Plan – incorporating list of all consented, application stage or scoping wind turbine developments

(Refer to: Siting and Designing of Small Scale Wind Turbines, March 2012 www.snh.gov.uk/docs.)

3. Proposals must be supported by maps showing the zones of visual impact (Zones of Theoretical Visibility, ZTV). Illustrations of the proposed development are

It will generally be appropriate to demonstrate compliance with the objectives of policy DSP 4 through submission of design and access statements in line with relevant Scottish Government Planning Advice Notes. Supplementary Planning Guidance is a material consideration in determining applications for planning permission.



Braidenhill Farm - single turbine

required - animated computer generated images can be particularly useful. Visual information should be presented in a way which communicates accurately and as realistically as possible the actual visual impact of the proposal on the surrounding landscape.

4. Pre-application discussions will be an important first step in processing applications for turbines that are over 20m to blade tip in height. This will allow the Council to outline at an early stage what information is likely to be necessary for this scale of proposal within North Lanarkshire. All of the criteria listed within the SPG are necessary to be addressed when assessing an application at this scale, however the most important issues are:

- Visual Assessment – particularly on cumulative impact
- Protected Species
- Noise
- Aviation

5. It will be advisable as part of the pre-applications process for applicants to discuss your development proposals with the organisations listed below:

- Ministry of Defence,
- Airport Operators
- Scottish Natural Heritage,
- Historic Scotland, (via Scottish Government)
- Scottish Environment Protection Agency,
- Health and Safety Executive,
- Transport Scotland,
- Forestry Commission Scotland,
- Rail Authority and
- Electricity transmission/distribution network operator
- Ofcom
- Telecommunications
- Other organisations identified at pre-application discussion

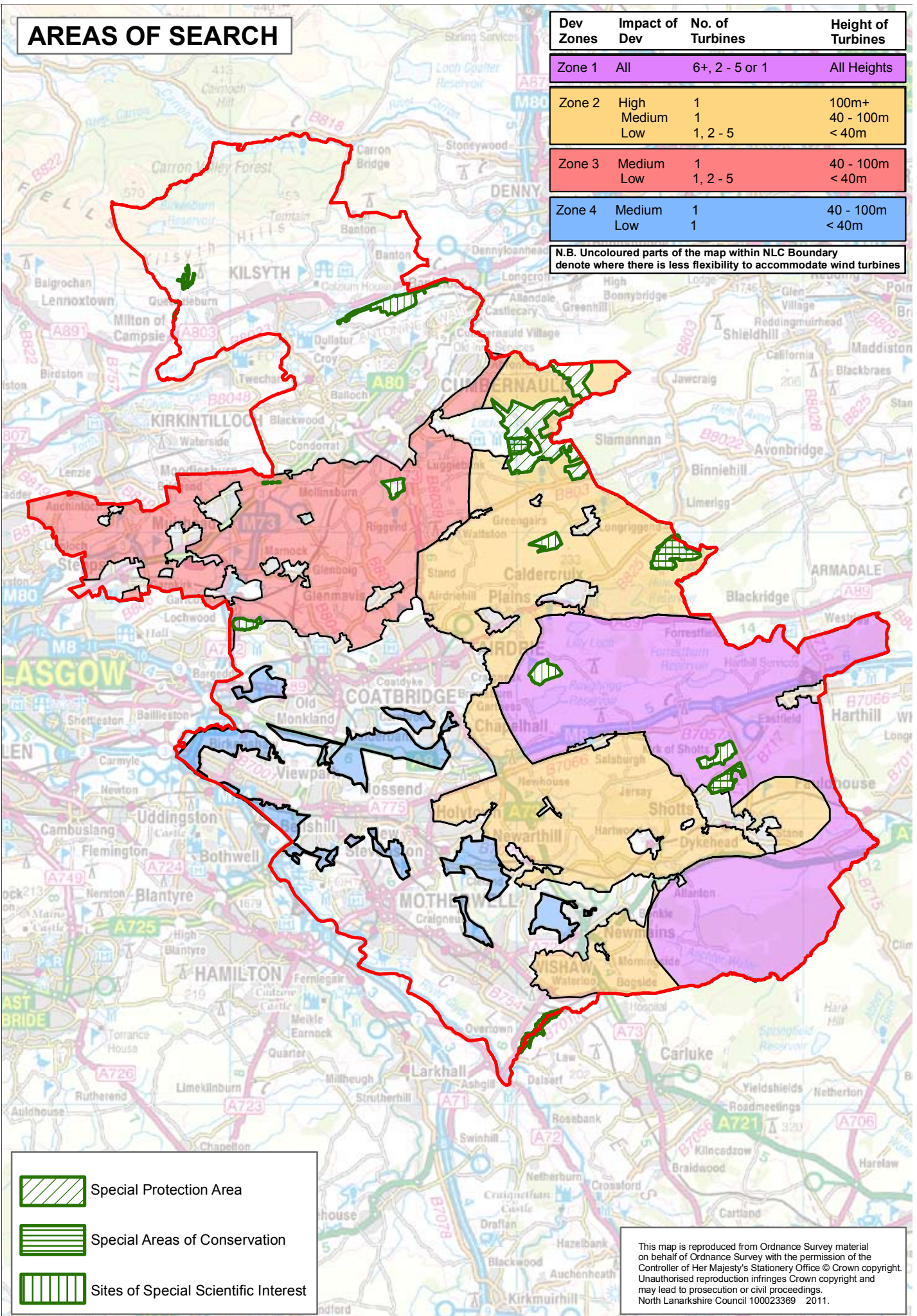
6. For National and Major scale developments Pre-Application Consultation is required and applications must include a Pre-Application Consultation Report setting out how local people have been informed and involved in the preparation of the scheme - and how their views have been taken into account in the submitted scheme.

Whilst formal Pre-Application Consultation is a requirement on National and Major Developments, community engagement is encouraged for all wind turbine developments.

AREAS OF SEARCH

Dev Zones	Impact of Dev	No. of Turbines	Height of Turbines
Zone 1	All	6+, 2 - 5 or 1	All Heights
Zone 2	High Medium Low	1 1 1, 2 - 5	100m+ 40 - 100m < 40m
Zone 3	Medium Low	1 1, 2 - 5	40 - 100m < 40m
Zone 4	Medium Low	1 1	40 - 100m < 40m

N.B. Uncoloured parts of the map within NLC Boundary denote where there is less flexibility to accommodate wind turbines



-  Special Protection Area
-  Special Areas of Conservation
-  Sites of Special Scientific Interest

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C. AREAS OF SIGNIFICANT PROTECTION & POTENTIAL CONSTRAINTS

1. PROTECTED SITES:

Areas may be designated as Special Areas of Conservation (SAC) where they support rare, endangered or vulnerable natural habitats and species of plants or animals (other than birds). Where areas support significant numbers of wild birds and their habitats, they may become Special Protection Areas (SPA). SACs are designated under the Habitats Directive and SPAs are classified under the Birds Directive. Together SACs and SPAs from the Natura 2000 network of sites.

2. North Lanarkshire has four SAC's, namely:

Black Loch Moss, Clyde Valley Woodlands (incorporating Garrion Gill SSSI), North Shotts Moss and West Fannyside Moss. There is one Special Protection Area – Slamannan Plateau

3. APPROPRIATE ASSESSMENT:

Any development proposal which is likely to have a significant effect on a Natura 2000 site and is not directly connected with or necessary to the conservation management of that site must be subject to an appropriate assessment by the planning authority of the implications for the site's conservation objectives. Development which could have a significant effect on a Natura 2000 site can only be permitted where:

An appropriate assessment has demonstrated that it will not adversely affect the integrity of the site, or there are no alternative solutions, and there are imperative reasons or overriding public interest, including those of a social or economic nature. Where, in the absence of any alternatives, an authority proposes to approve a plan or project which could adversely affect the integrity of a Natura site, Scottish Ministers must be notified and compensatory measures necessary to ensure the overall coherence of the Natura network is protected must be provided. For plans or projects affecting a Natura site where a priority habitat or species (as defined in Article 1 of the Habitats Directive) would be affected, prior consultation with the European Commission via Scottish Ministers is required (unless the proposal is necessary for public health or safety reasons or will have beneficial consequences of primary importance to the environment.) The Scottish Government accords the same level of protection to proposed SACs and SPAs as those which have been approved by Scottish Ministers for formal consultation.

(See Guidance on Assessing Connectivity with SPA's, March 2012, www.snh.gov.uk/docs)

4. NORTH LANARKSHIRE NATIONAL DESIGNATIONS - 13 Sites of Special Scientific Interest:

Black Loch Moss, Corrie Burn, Dullatur Marsh, Garrion Gill, Hassockrigg and North Shotts Mosses, Hamilton Low Parks (part of), Lady Bell's Moss, Longriggend Moss, Mollinsburn Road Cutting, North Bellstane Plantation, **Slammanan Plateau**, West Fannyside Moss and Woodend Loch.

In accordance with SPP, A Site of Special Scientific Interest (SSSI) is notified for the special interest of its flora, fauna, geology or geomorphological features. Development that affects an SSSI should only be permitted where:

- It will not adversely affect the integrity of the area or the qualities for which it has been designated, or
- Any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance.'

This includes the consideration of proposals out with the boundaries of SSSIs, which may affect the notified feature(s) within the SSSI.

5. THE WIND FARM SEARCH AREAS MAP:

The accompanying map indicating Wind Farm Search Areas in North Lanarkshire (Shown on page 4) has all Natura 2000 sites and SSSIs identified on it. This is to highlight the significance of the protection given to these sites and that the areas are based on statutory environmental requirements. The online renewables advice states that there is practical benefit in wind energy developers knowing these requirements and recognising that the potential of sites would be expected to be lower than within other areas, owing to the application of the precautionary principle. This information should help developers reduce project risk in identifying suitable sites.

6. GREEN BELT:

Under SPP there is a presumption against inappropriate development in green belts. Proposals for wind farm developments that are located within the Green Belt will be fully assessed against NBE 3A Assessing Development in the Green Belt and the related Supplementary Guidance SPG 07.

7. PROXIMITY AND CUMULATIVE IMPACT:

Cumulative impacts occur when two or more wind turbines are visible either in combination, in succession or sequentially. Where proposals would result in two or more wind turbine developments within close proximity (around 15km or less), their cumulative impact requires to be fully evaluated. Account will be taken of factors such as natural and built environment features, noise and fixed viewpoints from roads, paths/ cycleways or rail routes.

SPATIAL FRAMEWORK

1. Scottish Planning Policy (SPP) (2010) requires that spatial frameworks are set out in development plans. The purpose is to guide wind turbine developments to appropriate locations, to maximise renewable energy potential and to minimise wasted effort and resources on inappropriately located proposals. The online renewables advice released in February 2011 suggests that whilst the SPP requires a spatial framework for wind farms of over 20MW generating capacity, locally developed planning guidance for development less than 20MW will serve developers and communities well.
2. The suggested approach for a Spatial Framework is broken down into three main stages:
Stage 1 – Identify areas requiring significant protection
Stage 2 – Identify areas with potential constraints
Stage 3 – Identify areas of search.
3. The Areas of Search Map (p.04) has been derived using areas requiring significant protection and potential constraints of the landscape character of North Lanarkshire and cumulative impact. (see below for full details) This spatial framework will be further developed in full accordance to guidance and advice during the course of the Local Development Plan process for North Lanarkshire.

7. (Continued) PROXIMITY AND CUMULATIVE IMPACT:

Advice on cumulative impact contained in Cumulative Effect of Wind Turbines (2000) prepared for DTI by ETSU, SNH Guidance 'Visual Representations of Wind Farms: Good Practice Guidance' (March 2006) SNH, Siting and Designing Windfarms in the Landscape (2009) and 'Assessing the Cumulative Effects of Onshore Wind Energy Developments' March 2012 <http://www.snh.gov.uk/docs> and Scottish Government Online Renewables Advice will all be taken into account in determining developments. The Areas of Search Map on page 5 was devised using cumulative impact as one of the determining factors. Developers also need to take into account the constant and evolving nature of cumulative impacts and that the addition of each wind turbine development could have an effect around 360 degrees.

8. SITING AND DESIGNING WIND FARMS IN THE LANDSCAPE:

Scottish Natural Heritage produced Siting and Designing Windfarms in the Landscape in December 2009 to provide guidance to all involved in the wind turbine development design process and it aims to learn from experience to inform the future siting and designing of windfarms.

North Lanarkshire Council wishes to ensure that wind turbine developments are sited and designed so that adverse effects on landscape and visual amenity are minimised, and that areas which are valued for their landscape and scenery within North Lanarkshire are given due protection. If wind turbine developments are sited and designed well, the capacity of NLC landscape to incorporate this type of development will be maximised. Conversely, if they are poorly located and designed the scope for further development in the future will be greatly reduced. The full document can be found at <http://www.snh.gov.uk/docs>

9. CUMULATIVE LANDSCAPE AND VISUAL IMPACT ASSESSMENT:

Developers are advised to follow best practice advice contained in the Guidelines for Landscape and Visual Impact Assessment by The Landscape Institute and the Institute of Environmental Management and Assessment (second edition), (2002).

Cumulative impact assessments should include all operating and consented schemes within areas of between 30-60km radius and those which are the subject of valid but undetermined applications.

The following should be included:

- Base plan of all public domain proposals (potentially out to 60km)
- ZTV (Zone of theoretical visibility) to 30km for all existing and consenting public realm applications
- Selection of viewpoints
- Sequential Visual Analysis
- Description & Assessment of Cumulative Landscape Effects.
- Photomontage and wireline representations,

10. HISTORIC ENVIRONMENT:

Developments will be required to demonstrate how they can be accommodated without resulting in unacceptable significant adverse effects on the character of the historic environment, including:

- The Antonine Wall World Heritage Site and its buffer zone
- Listed buildings (over 300 within North Lanarkshire), especially where their landscape settings would be affected
- The Forth and Clyde Canal is a Scheduled Ancient Monument. Impacts that need to be addressed are those which could potentially cause direct impacts on the site itself and indirect effects on its setting
- Conservation areas, especially where the reason for their designation would be affected
- The Inventory of Gardens and Designated Landscapes, especially where the proposal would affect important vistas.
- Consideration of regional and local archaeological sites in accordance with SPP.

11. LANDSCAPE DESIGNATIONS:

Areas of Great Landscape Value are of regional importance. The River Clyde Area of Great Landscape Value (AGLV) and Campsie Fells Regional Scenic Area (RSA) are deemed unsuitable for wind turbine developments and are therefore not identified as Wind Farm Search Areas.

Country Parks: There are three Country Parks in North Lanarkshire; Strathclyde, Palacerigg and Drumpellier. Strathclyde Country Park is a regional Tourism Development Area and the other two parks are of local significance.

Local Nature Reserves: Dumbreck Marsh, Gartcosh and Perchy Pond.

Sites of Importance for Nature Conservations (SINCs) are the Council's local natural heritage designations and are protected under Policy NBE 1 of the FDNLLP. Developers should also cross reference with SPG 20 Biodiversity where necessary. Wind farm developments near these sites will be assessed, with consideration of the number of turbines, height, pattern in the landscape, overall composition and relationship to key landscape features. Any negative impacts will need to be assessed.



12. NON DESIGNATED NATURAL HERITAGE:

- European protected species (e.g. bats, great crested newts and otters)
- Other protected species (e.g. badgers, water voles, certain bird species)
- Species listed in the NLC biodiversity action plan
- Species listed on the Scottish Biodiversity List

The impact on such natural heritage interests will require to be assessed. Prior to granting planning permission, the Council must be satisfied that developments will not impact adversely on any European protected species or that, in its opinion, all three tests necessary for the eventual grant of a Regulation 44 licence (issued under The Conservation (Natural Habitats, &c.) Regulations 1994, as amended) are likely to be satisfied. To do otherwise would risk breaching the requirements of the Habitats Directive and Regulation 3(4) of the 1994 Regulations. The three tests are centred on aspects of the development and its location, i.e. Purpose / No Alternative / Not Detrimental. A regulation 44 licence is issued by Scottish Ministers in consultation with Scottish Natural Heritage (SNH). Applications for wind turbine developments, irrespective of location, will be assessed on their own merits in relation to bird issues and applicants should be guided by SNH in respect of the requirements for ornithological surveys. Where necessary see SPG 20 Biodiversity.

13. HABITATS:

Consideration must be given to the impact of wind turbine developments on habitats listed in the following documents:

- North Lanarkshire biodiversity action plan
- Scottish Biodiversity Plan
- Annex I of the European Union (EU) Habitats Directive
- 'The Ancient Woodland Inventory (Scotland), NCC (1986)
- Central Scotland Green Network

There may be specific requirements for Habitat Management Plans (HMP) depending upon the impact of a wind turbine development. These are frequently used to implement mitigation measures to address any negative impacts of developments and may include the management land out with the wind turbine site itself. The purpose of the HMP would be to enhance the condition and extent of habitats on site and to provide mitigation for any negative aspects of the development on flora and fauna. Applicants are asked to seek guidance from SNH at the earliest stage possible when considering a proposal for wind turbine development in NLC. SNH advises that turbines should be a minimum of 50m away from hedges, trees and woodlands in order to minimise the impact on wildlife. The National Planning Framework has identified Central Scotland Green Network (CSGN) as a national development. The following link provides more information on CSGN; <http://www.centalscotlandgreennetwork.org/>

14. PEAT:

Wind farm development on soils which hold large stocks of carbon, for example peat, can potentially lead to carbon losses. Any potential wind farm developments must be designed to minimise soil disturbance when building and maintaining roads and tracks, turbine bases and other infrastructure to ensure that the carbon balance savings of the scheme are maximised. Areas of deep peat should be avoided and any proposed wind turbine developments should not have a significant detrimental impact on peatland and carbon balance. Where relevant, applicants will be expected to provide self certified geotechnical and hydrological information in support of applications, identifying the presence of peat at each site, including the risk of landslide connected to any development work. Developers may also be required to submit Construction Management Statements to address any negative implementation impacts. Further guidance is provided in the Scottish Government documents: Peat Landslide Hazard and Risk Assessment (2007) and Calculating

Carbon Savings from Wind Farms on Scottish Peatland – A New Approach' (2008) (<http://www.scotland.gov.uk>)

15. ENVIRONMENT:

Developers are advised to consider the details contained within SEPA Planning Advice Note 4 on Windfarm Developments. (http://www.sepa.org.uk/planning.aspx#Guidance_notes.) There will be a presumption against developments which have a significant detrimental impact on the following sensitive receptors: carbon balance, air quality, the water environment, soils and peatlands, flood risk.

16. COMMUNITIES:

Large-scale windfarm proposals (those over 20 MW) could have a significant impact on local communities and considerably alter the rural character of the countryside. As recommended in SPP, a distance of up to 2 km stand off distance applies in North Lanarkshire between areas of search and the edge of its towns and villages. Within this distance, proposals will continue to be judged on a case-by-case basis. Large scale windfarms are generally not regarded as suitable developments within urban areas because of their associated environmental impacts although there may be urban locations suitable for a limited number of turbines. Proposals for urban / urban fringe business / dedicated commercial wind turbine developments below 20MW will be considered on their individual merits.

17. GROUNDWATER AND SURFACE WATER:

Developers should obtain all required authorisations or licences under the environmental protection regimes (e.g. the Water Environment (Controlled Activities)(Scotland)Regulations 2005 (CAR) prior to construction. Further details can be found in PAN 51: Planning, Environmental Protection and Regulation <http://www.scotland.gov.uk>. Wind turbine developments will only be supported where they:

- Do not have a significant detrimental impact on the water environment (water quality, water quantity and ecological status) including watercourse, locks, wetlands, riparian areas, groundwater, hydromorphology and springs.
- Do not involve unjustified culverting and/or watercourse crossings
- Demonstrate that suitable measures will be adopted to prevent any significant adverse impacts on the water environment, including risk of pollution, and mitigate residual impacts.

It is recommended at an early stage that applicants demonstrate that the proposed drainage arrangements (both surface water and foul drainage) are appropriate and are capable of being authorised by SEPA under CAR. Surface water runoff from these sites must be treated via SUDS prior to discharge to the water environment. Applicants are advised to refer to SPG – 09 Flooding and Drainage for SUDS requirements. The Water Framework Directive (WFD) also requires maintenance of the good ecological status of water bodies and consideration of any potential impacts. Applicants are advised to refer to further advice from SEPA <http://www.sepa.org.uk/water.aspx>.

18. BROADCASTING INSTALLATIONS:

Proposed developments should take into account the location of microwave and other radio communication links and television broadcasting installations within the area and ensure where necessary through mitigation that the protection or re-provision of transmission links is maintained. Where applicable, applicants should consult with network owners and Ofcom to ensure that no adverse material impact will occur, or alternatively that a technical solution is available and will be provided as part of the scheme. Where there may be an issue with broadcast interference it is for the applicant to show that they have consulted the network owners and that the latter are satisfied with the proposal. Where possible, a survey of television reception could be considered before works start to establish a baseline against which to assess the impact of the wind turbine.

19. AVIATION AND DEFENCE INTERESTS:

In North Lanarkshire aviation and defence radar is a major constraint. Therefore for all wind turbine applications, applicants are advised to contact the relevant consultees such as National Air Traffic Service (NATS), Ministry of Defence, British Airports Authority and Glasgow, Edinburgh and Cumbernauld airport operators at an early stage in order to establish potential impacts and agree acceptable technical solutions. The Council will, following consultation with the relevant bodies, take account of the need to address impacts on airport operations flight activity, aviation and defence radar and seismological recording and ensure that impacts have been satisfactorily addressed. It is a matter for developers to address these impacts through discussion with the relevant bodies.

Turbines which would have an adverse effect on aircraft navigation (military or civilian) and other radar installations used for health and safety applications will not be supported. Objections received on aviation grounds are likely to require suitable mitigation. This is not always attainable and could lead to refusal.

Scottish Planning Circular 2/2003 Safeguarding of Aerodromes, Technical Sites and Military Explosives Storage Areas: The Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage) Direction 2003 identifies the need for safeguarding of Glasgow, Edinburgh and Prestwick airports and NATS (En Route) plc technical installations.

NATS has two distinct divisions:

- i. NATS (en-route) plc (NERL) provides en route Air Traffic Services to aircraft flying in United Kingdom and North Atlantic airspace. NERL operate the radar, communications facilities and navigation aids that support en-route Air Traffic Management and is obligated to safeguard its infrastructure and airspace procedures to ensure the integrity of the ATS it provides.
- ii. NATS Services Limited (NSL) provides ATS at 15 of the UK's major airports under contract to the airport owner. As part of its contractual obligation NSL safeguard the airport systems and operations on behalf of the airport operator.

All pre-planning enquiries and scoping opinion requests will be treated in the same manner by NERL, i.e. through their pre-planning consultancy service which is available on-line: <http://www.nats.co.uk/environment/windfarms>.

In the south west of Scotland, there are particular issues with regard to radar capacity. A feasibility study was commissioned by the Scottish Government in Feb 2000. The report prepared by the South West Scotland Regional Aviation Solution Group – Final Radar Feasibility Study <http://www.scotland.gov.uk/Resource/Doc/917/0094738.pdf> concluded that it is technically possible to mitigate a large number of the turbines currently subject to aviation objections in the area, but only when subject to investment in airport or en-route radar system updates and infrastructure. This solution is unlikely to be deliverable in the short term.

The Scottish Government is reviewing the use of suspensive conditions on wind turbine consents to address aviation objections as a result of the above study. The Consultation document 'Steering the Implementation of Solutions for Aviation Objections to Windfarms in South West Scotland' <http://www.scotland.gov.uk/Publications/2010/09/Aviation-consultation> recommends that Councils should take into account, through consultation with Air Service Navigation Providers, the likelihood of a technical solution being realised in a reason-

able time frame, and within the lifetime of the consent, before seeking to use suspensive conditions to address aviation objections. Upon consultation, NATS assesses and comments on all full, formal planning applications. Mitigation agreements (relating to aviation and defence issues) between developer and other relevant authorities must be delivered in a reasonable timeframe, therefore technical solutions should be able to be realised within the lifetime of the consent. Within North Lanarkshire there is limited radar capacity, and it is considered appropriate that the timeframe for such planning conditions be limited to 18 months. Applicants are asked to refer to the Aviation Matters and the Military Aviation and Other Defence Matters sections of the web-based Renewables Advice: Onshore Wind Turbines.

20. GROUND CONDITIONS / INSTABILITY

Proposals for wind farm development should fully take into account ground conditions and any potential issues of unstable land. The North Lanarkshire area has been subject to significant amounts of past coal mining activity and it is important that wind farm proposals are informed by coal mining information, with any instability issues mitigated, to ensure that the development is safe and stable.

D. AREAS OF SEARCH

1. In preparation of the Finalised North Lanarkshire Local Plan, Areas of Search for Wind Turbine Developments were established using information derived from FDNLLP Technical Report No. 08 which explains the methodology used in establishing the location and boundaries of each of the development zones within the search areas and how the appropriate criteria is applied. This Technical Report was written using the results of the commissioned report, 'The Capacity of the North Lanarkshire Landscape to Accommodate Wind Turbine Development'. ASH, 2008.

2. As part of the ASH report, a review of the different landscape character areas within North Lanarkshire was undertaken. This included an analysis of previously commissioned studies and field observations. Inherent within this review was an understanding of those landscapes which were of importance in terms of scenic quality (attractiveness), and value (importance) as contributors to an evaluation of sensitivity to landscape change which would result from the various scenarios envisaged.

3. An important component of this review was an analysis of the potential cumulative landscape impacts as a result of existing developments, those under construction or with consent, and those submitted planning applications within and up to 15km from the North Lanarkshire boundary. For each development, a Zone of Theoretical Visibility (ZTV) was run to determine the extent to which each development could be visible within the different landscape character areas of North Lanarkshire. This information was then fed into the sensitivity evaluation.

4. The Area of Search map (on page 4) shows each of the four development zones identified which have the capacity to accommodate different ranges and scales of wind turbine developments with varying impact. These areas notwithstanding, all proposals for wind turbines developments, either within or outside of the four development zones will require to be fully assessed against the criteria contained within this SPG.

5. Once a detailed understanding of landscape sensitivities within North Lanarkshire was obtained (which excluded all nationally designated sites), an assessment was carried out into the potential of each landscape character area to accommodate differing magnitudes of wind turbine development. Nine levels of magnitude were considered, using a sliding scale of height and extent. By assessing likely impacts for each scenario this enabled the assessment to determine whether, for example, a particular landscape could potentially accommodate only a single turbine of a particular height, or whether there was

potential for the landscape to accommodate a larger development without potentially significant adverse impact. Of the different landscape character areas within North Lanarkshire, it is concluded that the “Plateau Moorland” landscape character area (Zone 1), to the south and east of North Lanarkshire, possesses the greatest potential to accommodate a range of wind turbine developments. The development scenarios used had different heights and numbers of turbines and the impact of these development scenarios within each of the four zones were evaluated as High, Medium or Low.

E. OTHER CONSIDERATIONS

The Council has a duty to consider, in consultation with the wind farm industry, the project viability issues and impacts on communities. The following table lists the key issues and related requirements.

<p>1. Environmental Impact Assessment</p>	<p>Under the Environmental Impact Assessment (Scotland) Regulations (1999), certain developments require a formal Environmental Impact Assessment (EIA). Guidance on the EIA can be found in Planning Advice Note 58 and Planning Circular 3/2011. It is responsibility of North Lanarkshire Council to determine if a formal EIA is required. The Council has a statutory obligation to consider whether or not EIA is required for any wind energy project of more than two turbines OR for turbines of more than 15m in height. The Council must also consider whether the proposal could have an impact on a ‘sensitive area’ The applicant should refer to the SNH guidance where an EIA is not required: Natural heritage assessment of small scale wind energy projects which do not require formal Environmental Impact Assessment (EIA) SNH 2008. http://www.snh.gov.uk/docs</p>
<p>2. Access to the site and on-site accessibility</p>	<p>All turbines and control buildings will require internal access roads for construction, maintenance and decommissioning. Wind turbines may cause visual distraction for road, rail, paths, cycle paths and bridleway users. The likely impact on visitors, recreation facilities and countryside access facilities must be taken into consideration. Wind turbine developments within NLC require to be assessed for their impact on Core Paths and other routes (e.g. Rights of Way). Consideration also should be given to the opportunities to enhance such routes within and adjacent to wind farm sites. Applicants must ensure at an early stage in the proposals that site access and on-site accessibility is acceptable to NLC’s Roads and Transportation Service. Delivery Routes of wind turbine components should be submitted along with application details.</p>
<p>3. Road Traffic</p>	<p>Road Traffic Impacts. In siting wind turbines close to major roads, pre-application discussions are advisable with Transport Scotland’s Trunk Roads Network Management (TRNM). This is particularly important for the movement of large components (abnormal load routing) during the construction period, periodic maintenance and for decommissioning. Driver distractions may, in some instances be a consideration. Within North Lanarkshire, the recommended distance from any road network for a wind turbine will be the height of the turbine plus 50%.</p>
<p>4. Connection to Grid</p>	<p>Transmission cables connecting wind farms to the grid involves the siting of overhead cables or, preferably, laying cables underground. Scottish Power Transmission Limited is the grid operator. Any grid connection which is not permitted development requires the appropriate applications for grid connection under the Electricity Act 1989 (as amended). Any applicant dealing with a wind turbine development must apply to Scottish Power Transmission Limited for a connection to the National Grid therefore early negotiation is advised. The routing and scale of transmission lines linking renewable energy developments and the effects will be taken into account when considering proposals. In all instances, visual amenity and protection of the environment will be primary considerations.</p>
<p>5. Noise</p>	<p>When considering any wind farm application, the Council will take into account noise issues according to PAN 1/2011 - Planning and Noise. There are two sources of noise from turbines – the mechanical noise from the turbines and the aerodynamic noise from the blades. Mechanical noise is related to engineering design and aerodynamic noise varies with rotor design and wind speed, and is generally greatest at low speeds. Developers must ensure that any increase in noise levels is acceptable and that they do not have an unacceptable significant affect on the environment and any nearby noise-sensitive properties through good acoustical design and siting of turbines. Applicants should consider other documentation referred to in the web-based planning advice on renewables, namely ‘The Assessment and Rating of Noise from Wind Farms’ (ETSU-R-97) and the Salford University report into Aerodynamic Modulation of Wind Turbine Noise. A noise assessment for all wind turbine developments within North Lanarkshire is recommended.</p>

<p>6. Shadow Flicker</p>	<p>Shadow flicker can affect properties which are positioned within 130 degrees of north and located up to 10 times the rotor diameter from the turbine. The degree of impact can also depend on the type of window openings in the affected building. Where possible, turbines should not be sited so that they cause shadow flicker at dwellings or other sensitive properties. However, if a turbine must be sited in a particular location, developers will need to consider some forms of mitigation including restricting the operation of the turbine during significant periods (usually low sun). Other mitigation measures may include screen planting/fencing as appropriate.</p>
<p>7. Forestry and Woodland</p>	<p>Forestry Commission Scotland (FCS) has a statutory duty to promote sustainable forestry and advises implements and manages the national forest estate. Any wind farm proposal that necessitates deforestation requires pre-application consultation with Forestry Commission Scotland and also need to conform to Scottish Government Policy on Control of Woodland Removal (2009). (http://forestry.gov.uk) This document advises that removal of woodland should only be allowed where it would achieve considerable and clearly defined additional public benefits. Any replacement planting requirements would be outlined either by planning application conditions or Section 75 agreements depending upon site specific details.</p>
<p>8. Ice</p>	<p>Turbine blade icing can create vibration problems and a potential hazard to people and wildlife. The potential safety hazard from ice should be evaluated and appropriate mitigating measures incorporated into any proposed developments.</p>
<p>9. Construction Stage</p>	<p>Wind Farm or turbine construction impacts will be considered at the time of the application; including sources and supply of construction materials for road access, effects on groundwater, bodies of standing water and watercourses. On-site and off-site power transmission issues, such as the location of sub stations and pylon/overhead line routes must be evaluated. The effect on trees and woodlands must be fully evaluated. Applicants need to be aware that there may be a requirement for a Construction Method Statement. If the provision of infrastructure crosses sensitive areas, an Ecological Clerk of Works may need to oversee this work at construction stage.</p>
<p>10. Decommissioning Stage</p>	<p>Decommissioning activities require to be planned and details of restoration and site after-care must be included in any planning application. Turbine bases tend to be left 'in situ' to avoid damage taking place through removal. Agreement under Planning or other legislation will be required to ensure sufficient funding is available to guarantee equipment removal, site restoration and after care at close of operations or after site abandonment for a period of 6 months. If the provision of infrastructure crosses sensitive areas, an Ecological Clerk of Works may be required to oversee this work at decommissioning stage. Prior to the expiry of consents, proposal may come forward to extend the life of the project by re-equipping or replacing the original turbines with new ones. While there are obvious advantages in utilising established sites, such cases will have to be determined on merit and in the light of current policy considerations.</p>
<p>11. Single Turbines</p>	<p>Single turbines generally have a smaller impact than wind farms, complex issues still arise, depending upon location a single turbine can cause a disproportionate impact. Also, cumulative impacts of individual turbines may arise if several single turbines are constructed in the same area (around 15km). Developer co-ordination and joint agreements for shared facility use will be encouraged. Public safety and appropriate distances from nearby development will require to be maintained. Radar, aviation, ecology, shadow flicker and broadcasting issues will still need to be addressed on an individual basis. Any proposal for a single turbine will be assessed on the impact of the height of the hub, length of the blades, the scale and character of the landscape and any cumulative impacts on amenity.</p>
<p>12. Wind Speed</p>	<p>Wind speed is a key element in identifying areas which are viable from an operational and commercial perspective. Based solely on wind speed there are areas in North Lanarkshire that could accommodate windfarms. Wind speed should be adequately addressed prior to application as it will be a defining factor on whether a scheme is viable. Whilst not essential, it is in the developer's interest that any potential large scale wind turbine developments use pre-development monitoring masts to establish average wind speeds. UK Wind Speed Database http://www.bwea.com/noabl/index.html</p>

F. PLANNING APPLICATION SUBMISSION REQUIREMENTS

Applications for wind turbine developments may be expected to include as a minimum requirement the following information - unless otherwise agreed in writing by the Council that certain items of information are not required in the case of a particular proposal.

Submission Checklist

A. Environmental Statement submitted in accordance with The Environmental Impact Assessment (Scotland) Regulations 1999, and any associated changes. Environmental Impact Assessments are likely to be required for projects which fall into a category within the scope of the Environmental Impact Assessment (Scotland) Regulations 1999 or where it is considered environmental issues require to be fully appraised. This includes wind farms of more than 2 turbines or where the hub height of any turbine or height of any other structure exceeds 15 metres. It is advisable for any applicant/developer to undertake scoping Environmental Statements (ES) for wind turbine developments. This process can help focus the ES on key issues and avoid the omission of important issues. This can deliver important benefits for all involved in the planning process.

B. Supporting Statement that describes the proposals and explains the relationship of the proposals to national, regional and local planning policy, and explains how each factor covered in the checklist of this Guidance has been addressed. Cross referencing, as appropriate, to the Environmental Statement or other submissions should be considered.

C. A Transport Assessment will normally be included as part of an Environmental Statement if required in accordance with the requirements of SPP and PAN 75 Planning for Transport. Where no EIA is required, a Transport Statement may be more suitable depending upon the scale and size of the proposed development.

D. Design Statement There is a requirement for all applications for wind farm developments classed as major developments (generating over 20MW of electricity) to contain a Design Statement which sets out the design objectives and documents the design process of the development. Within North Lanarkshire, it is recommended that all applications for 4 turbines or more contain a Design Statement. Applicants preparing a Design Statement are asked to pay particular attention to the above-mentioned report 'Siting and Designing Windfarms in the Landscape' (SNH 2009).

E. Construction Method Statements and Environmental Management Plans

Depending upon the development proposals a Construction Method Statement and Environmental Management Plan may be required. An application submission should provide the following details:

- All proposed watercourse crossings/culverting other works in or adjacent to sensitive water receptors
- The management and disposal arrangements for site draining and contaminated waters
- Handling and storage of peat
- Site Waste Management Plans

- Pollution prevention matters
- Construction Method Statements and Environmental Management Plans should include proposals for mitigation of impacts and compliance with environmental guidance.

F. Other Environmental Factors The following factors need to be considered for any planning application:

- Location of built elements
- Carbon Balance
- Peatland
- Pollution Prevention and environmental management
- Engineering activities in the water environment
- Borrow pits
- Site waste management plans.

G. Restoration Proposals (as appropriate) including details of all proposed after use(s) of the restored application site ; how the application site will be restored and integrated with the surrounding landscape; method of restoration working ; timing of restoration and details of all after care following restoration

H. Financial Bond & Legal Agreement (as appropriate) A confirmed commitment by the applicant is required to the provision of a financial bond and/or legal agreement that covers the provision of site monitoring during construction works, site restoration and suitable aftercare period. This is to ensure adequate measures are in place to ensure the site is restored in an appropriate manner.

I. Community Engagement Statement setting out how the local community has been involved, what there views are, and how these views have been taken on board or mitigated.



Braidenhill Farm Turbine - base painted green

G. Checklist

your scheme should ensure...

The Council will expect all planning applications for wind farms to set out how they have complied with this Guidance

That the planning application submission requirements of section F are met, namely:

- Environmental statement
- Supporting statement
- Transport assessment
- Design Statement
- Construction Method Statement and Environmental Management Plans
- Restoration proposals
- Commitment to financial bond and legal agreement(s)
- Community Engagement Statement

That the submission addresses all the key factors in Sections C to E relating to:

- Protected Sites
- National Designations
- Non designated natural heritage
- Peat
- Proximity and Cumulative Impact
- Historic Environment
- Environment
- Aviation and Defence Interests
- Wind Speed
- Connection to Grid
- Shadow Flicker
- Ice
- Decommissioning Stage
- Environmental Impact Assessment
- Appropriate Assessment
- Landscape Designations
- Habitats
- Greenbelt
- Cumulative Landscape and Visual Impact Assessment
- Groundwater and Surface Water
- Communities
- Ground Conditions / Instability

H. CONTACTS DETAILS

North Lanarkshire Council Development Management Northern Area Office

Fleming House, 2 Tryst Road,
Cumbernauld G67 1JW
T: 01236 632500
esenquiries@northlan.gov.uk

SEPA East Kilbride,
5 Redwood Crescent, Peel
Park, G74 5PP
Planning.ek@sepa.org.uk
www.sepa.org.uk/

North Lanarkshire Council Development Management Southern Area Office

Fleming House, 2 Tryst Road,
Cumbernauld G67 1JW
T: 01236 632500
esenquiries@northlan.gov.uk

Scottish Natural Heritage
30 Hope Street, Lanark, ML11 7NE
T: 01555 665928 www.snh.gov.uk
E: enquiries@snh.gov.uk
- see their Guidance on Siting &
Designing_windfarms
and other relevant guidance

North Lanarkshire Council Development Management Major Developments Team

Fleming House, 2 Tryst Road,
Cumbernauld G67 1JW
T: 01236 632480
esenquiries@northlan.gov.uk

NATS
4000 Parkway, Whiteley,
Fareham, Hants PO15 7FL
01489 616001 www.nats.co.uk
BAA Aerodrome Safeguarding
2nd Floor Meridian Building
Compass Centre, Nelson Road,
Hounslow, Middlesex, TW6 2GW
T: 0208 7570887/7450590/7452105
E: safeguarding@baa.com

North Lanarkshire Council Strategic Planning

Fleming House, 2 Tryst Road,
Cumbernauld, G67 1JW
T: 01236 632625
esenquiries@northlan.gov.uk

See also publications/ advice
at:

Scottish Government
www.scotland.gov.uk/topics/
planning

**The latest Supplementary Planning Guidance and index can be found online at:-
www.lanarkshire.com/nllocalplan/ and www.northlanarkshire.gov.uk**

This is one of a series of Supplementary Planning Guidance Leaflets aimed at encouraging good practice in the design and layout of new development. The advice supplements the policies in the emerging North Lanarkshire Local Plan. The Council will have regard to this Guidance when assessing the merits of planning applications. The Supplementary Planning Guidance is amended and approved after taking into account comments from the public consultation. It is prepared in accordance with the Planning etc (Scotland) Act 2006 and is updated to accord with latest Government Policy. It is available on-line and can be translated or provided in other languages or formats on request.

Ref: SPG.12 Approved 28 July 2010
Wind Turbine Development (revised Mar 2012)
North Lanarkshire Council, Environmental
Services, Strategic Planning, Fleming House,
2 Tryst Road, Cumbernauld G67 1JW
Tel 01236 632625 esdesign@northlan.gov.uk
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