

SEA Scoping Report

Stirling Council :

Supplementary Planning Guidance :

***Interim Locational Policy and Guidance for Renewable Energy
Developments (Wind Turbines)***

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TABLE OF CONTENTS

1	INTRODUCTION	
1.1	Background and requirement for SEA	1
1.2	Purpose of Report	1
2	KEY FACTS ABOUT THE PPS	
2.1	Key Facts	2
2.2	PPS content	3
3	CONTEXT OF THE SPG	
3.1	Relationship with other PPS	3
3.1.1	Renewables planning policy - National	3
3.1.2	- Stirling	5
3.1.3	- Neighbouring authorities	5
3.1.4	Other relevant non-planning PPS	7
3.1.5	Other legislation, guidance, etc, and environmental objectives	8
3.1.6	Environmental protection policies in Stirling Development Plan	9
3.2	Relevant aspects of the current state of the local environment	10
3.3	Relevant environmental problems	11
4	SCOPE AND LEVEL OF DETAIL PROPOSED FOR SEA	
4.1	Scope of SEA relative to Scope of PPS	13
4.2	Alternatives to the proposed PPS	13
4.3	Scoping in/out of Likely Significant Environmental Effects	14
4.4	Methodology for assessing environmental effects	14
5	NEXT STEPS	
5.1	Indicative consultation timetable	16
5.2	Anticipated milestones	16
6	APPENDICES	
1	<i>Natura</i> sites wholly or partly within the Plan area	16
2	Map of Plan area	17

1 INTRODUCTION

1.1 Background and requirement for SEA

The Scottish Government is encouraging Councils to review development planning policies for renewable energy projects (following publication of SPP6 – *Renewable Energy*) and where necessary to update policies, using Supplementary Planning Guidance (SPG) if appropriate, preferably by the end of 2008 (In Stirling, other priority work has intervened to delay matters). Stirling Council, having commissioned (with the Loch Lomond & The Trossachs National Park Authority and Scottish Natural Heritage) and adopted (March 2008) the findings of a landscape sensitivity study relative to wind turbine developments, was already moving towards augmenting its existing Development Plan policies. SPG is being prepared to provide a revised planning framework and locational guidance for the Council area outwith the Loch Lomond & The Trossachs National Park. This will be an interim policy pending preparation of a new-style *Local Development Plan*.

The landscape sensitivity study referred to^{*} recommends a restrictive planning approach to additional large turbines in the Council's planning area. Given the Government's targets for renewable energy generation and the significant interest from wind farm developers/operators in the Council area^{*}, any move towards a potentially constraining policy will be controversial. The Council is therefore concerned that all appropriate procedures and assessments should be carried out before policies and guidance are considered for adoption. Accordingly, the Council has gone through the Screening process for SEA (SEA Gateway reference 00303) and has as a result determined that it will carry out an Assessment, all in accordance with the Environmental Assessment (Scotland) Act 2005.

1.2 Purpose of Scoping Report

The purpose of this Strategic Environmental Assessment Scoping Report is to set out sufficient information on the ***Stirling Council : Supplementary Planning Guidance : Interim Locational Policy and Guidance for Renewable Energy Developments (Wind Turbines)*** to enable the Consultation Authorities to form a view on the consultation period and scope/level of detail that will be appropriate for the accompanying Environmental Report.

This Scoping report has been prepared in accordance with the Environmental Assessment (Scotland) Act 2005.

From the Council viewpoint the Strategic Environmental Assessment will ensure that the environmental implications of both the principle of adopting a changed planning policy and of the alternative forms of policy that might be chosen to achieve the planning objectives, are explicit when the decisions on how or whether to proceed are taken. It will be explicit also that the appropriate advice has been sought and consultation undertaken.

The Screening process has given a general idea of the environmental issues likely to require investigation in order to assess the implications of a new policy. The responses of the Consultation Authorities provided some additional suggestions. This Scoping report sets out in more detail the environmental issues, why they are considered relevant and how they may be expressed as objectives against which to test policy options. It also introduces the scope and purpose of the Environmental Report that will be issued as part of the forthcoming consultation upon the proposed SPG.

^{*} *Stirling landscape sensitivity and capacity study for wind energy development* (Horner & MacLennan, for Stirling Council, LLATTNPA and SNH; Nov 2007)

^{**} see (e.g.) *Windfarm Footprint Map January 2009* (SNH)

2 KEY FACTS ABOUT THE PPS

2.1 Key Facts:

- **Responsible Authority:** Stirling Council
- **Title of PPS:** Stirling Council : Supplementary Planning Guidance : Interim Locational Policy and Guidance for Renewable Energy Developments (Wind Turbines)
- **What prompted the PPS:**(1) significant development pressure for wind farms; (2) adoption by the Council of a landscape sensitivity/capacity study; (3) Scottish Government encouragement to planning authorities to update renewable energy development planning policies – and to use Supplementary Planning Guidance where appropriate (also see para. 1.1 above).
- **Subject:** Renewable energy developments – wind turbines only
- **Period covered by the PPS:** Interim policy until Local Development Plan can be adopted – perhaps 2012.
- **Frequency of updates:** Unlikely to be updated outwith LDP process (incorporation into LDP may involve further review).
- **Area covered by the PPS:** The Stirling Council Local Plan/LDP area; i.e. the Council area outwith the Loch Lomond National Park, amounting to c.1073 sq kms.
- **Purpose and objectives of the PPS:**The Purpose of the proposed Supplementary Planning Guidance is to provide an updated and more detailed locational policy for wind turbines (for Development Management purposes) than that currently found in the Structure Plan for the area, and to provide comprehensive development guidance for all scales of turbine development.

The Objectives of the policy and guidance are:-

(1) To provide, within the context of national planning policy and guidance (SPP6, PAN45) and SNH locational guidance, assistance to prospective developers to recognise the key environmental constraints affecting location of wind turbine developments (of whatever size or number) in the Stirling Council planning area.

(2) To provide residents, communities, developers and all other interested parties with a detailed statement of the factors that will be taken into account by the Council in reaching decisions on proposals requiring planning permission.

(3) To seek to ensure that proposals, if approved and constructed, do not have significant adverse effects upon the natural and cultural environment of the Plan area.

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2.2 PPS content

The proposed PPS is Supplementary Planning Guidance. It is intended to update and significantly replace the current Development Plan policies. It will relate to all proposals for wind turbines, from individual small turbines to groups of large turbines – ‘wind farms’. For large turbines it will indicate geographical areas where there are considered to be landscape impacts and cumulative visual impacts that point to either a restriction on development or to such sensitivity that specific locational and design guidance is appropriate. All other relevant factors will be covered, particularly where specific local factors apply (eg telecommunications and weather radar installations) or other local circumstances suggest variation from national guidance. The extent of nature conservation sites of national and international importance in the Plan area means that ecological factors will also assume considerable significance.

As indicated in the Screening report, the policy and guidance will be based upon the guidance in SPP6 and PAN45 but will be strongly influenced by the recent landscape sensitivity/capacity study. This landscape study provides locational guidance for a range of turbine sizes. For turbines of over 80m overall height it recommends that scope for development is minimal without adding to existing cumulative visual impacts and significant loss of landscape character. Relatively small areas in the south-east of the Plan area are likely to be considered less constrained by landscape and visual impact considerations (but may be affected by other environmental factors, such as the SPA designation of the Forth estuary).

For assessment purposes less restrictive policy options will also be examined.

Policies may also be brought forward relative to ‘community’ turbines and ‘community benefit’ arrangements with wind farm developers/operators. It will be considered whether the latter might include elements of mitigation for environmental effects potentially experienced differentially by particular communities.

As indicated at paragraph 4.1 below, the primary Assessment will be of the potential impacts of multiple large turbine developments (‘wind farms’), but other types of development in other environments will also be considered.

n.b. The Stirling Council Supplementary Planning Guidance, if adopted, should also be taken into account by the Scottish Government’s Energy Consents Unit, which has the responsibility for determining applications for wind farms rated at more than 50 Mw output.

3 CONTEXT OF THE SPG

3.1 Relationship with other PPS concerning Renewable Energy developments

This SPG will, if adopted, be a Material Consideration in the context of a wide range of other Plans, Policies and Strategies. These are summarized below in the approximate order – national planning policy; national guidance (planning and specialist spatial guidance); regional/local planning policy and guidance (Stirling, Lomond & The Trossachs National Park, other neighbouring Council areas); local related non-Planning policy.

Higher order policies and strategies (eg UK and Scottish legislation; European Directives underpinning national planning policies; etc, are not listed as it is considered that the relevant SPPs, etc contain the necessary level of background.

3.1.1 National planning policy for renewable energy developments is set out in SPP6 – *Renewable Energy* (Scottish Executive 2007). The SPP states, *inter alia*, that:-

“Planning authorities should use the development plan process to support and encourage the continued growth of all renewable technologies. In particular, plans should set out a spatial approach for considering wind farm proposals over 20 megawatts”.

And

“Spatial policies should not be used to restrict development on sites where the technology can operate efficiently and environmental and other impacts can be addressed. In all instances, development plans should provide clarity on the criteria that should be met to enable development to take place in a satisfactory manner. Plans should, however, use spatial policies to afford significant protection to areas designated for their national or international natural heritage value; green belts and those areas where further development would result in unacceptable cumulative impacts”.

[As already indicated the Stirling Supplementary Planning Guidance will not be confined to schemes of more than 20 Mw]

Table 1: National planning policy and advice published by Scottish Government (shortly to be superseded by SPP parts 2 and 3)

<i>Policy area</i>	<i>Policy document</i>		<i>Advice document</i>	
National Planning Framework	NPF2	National Planning Framework for Scotland		
Historic Environment	SPP23	Planning and the Historic Environment	PAN 42	Archaeology - The Planning Process & Scheduled Monument Procedures
Conservation Areas	SPP23	Planning and the Historic Environment	PAN71	Conservation Area Management
Economic Development	SPP2	Economic Development		
Flooding	SPP7	Planning and Flooding	PAN69	Planning and Building Standards Advice on Flooding
Green Belts	SPP21	Green Belts		
Natural Heritage	NPPG14	Natural Heritage	PAN60	Planning for Natural Heritage
Noise	-		PAN56	Planning for Noise
Renewable energy	SPP6	Renewable energy	PAN45	Renewable Energy Technologies (and Annexes – Planning for Micro Renewables; Spatial Frameworks ...etc)
Rural development	SPP15	Planning for Rural Development	PAN73	Rural Diversification
Telecommunications	NPPG19	Radio Telecommunications	PAN62	Radio Telecommunications
Water management			PAN79; PAN61	Water and Drainage; Planning and SuDS
Waste Management	SPP10	Planning for Waste Management	PAN63	Waste Management Planning

Annex A to SPP6 lists and summarises factors significant in the consideration of spatial frameworks for wind farm developments of 20 Mw or more. These and other material considerations are explained in more detail in Planning Advice Note 45 – *Renewable Energy Technologies* (Scottish Executive 2002), which also sets out the relationship of planning considerations to other legislative requirements. Annex 1 to PAN45 – *Planning for micro renewables* provides guidance to developers and planning authorities regarding installation of small wind turbines. PAN45 ‘Annex 2’ - *The Preparation of Supplementary Planning Guidance for Wind Farms* is also now published.

A range of non-statutory guidance has been prepared by SNH:

- *Wildness in Scotland's Countryside*
- *Visual Assessment of Windfarms: Best Practice (2002)*
- *Strategic Locational Guidance for Onshore Wind Farms in Respect of the Natural Heritage – Policy Statement June 2002*
- *Designing windfarms in the landscape – consultation draft September 2008*
- *Natural heritage assessment of small scale wind energy projects which do not require formal Environmental Impact Assessment (EIA) - Guidance Note*
- *Cumulative Effect of Windfarms: Guidance Note*
- *Guidelines on the Environmental Impacts of Windfarms and Small Scale Hydroelectric Schemes: SNH Natural Heritage Management Series (February 2001)*

And others:

- *RSPB Research Report No. 20 (in association with SNH)(2006). Mapping at tetrad resolution of sensitivity relative to conservation of certain bird species.*

3.1.2 Wind energy developments **policy for the Stirling area** currently resides in the Structure Plan (locational strategy – approved 2004) and Local Plan (development criteria – adopted 1999). Both pre-date SPP6. Statutorily they will not be replaced by the proposed Supplementary Planning Guidance but the SPG will be a Material Consideration in planning decisions, given weight by being up to date and prepared in the context of SPP6 and PAN45 (and other recent guidance from SNH and others referred to above).

The Structure Plan states:

“The Planning Authorities will seek to protect from adverse impacts certain key landscape features and the settings of a number of features of particular heritage and cultural importance, as identified in the policy and on the Supplementary Structure Plan Key Diagram (Renewable Energy). Detailed definitions of these areas and criteria will be established through Local Plans and the National Park Plan. The Councils and the Park Authority may also prepare supplementary advice for wind energy developments (including individual and small turbine installations), and for other technologies”.

The Supplementary Planning Guidance is intended to provide this refinement, ahead of the Local Development Plan process, there having been no appropriate Local Plan vehicle since 2004. The Park Authority's policies and proposals are noted below.

3.1.3 Relevant locational policies in neighbouring areas

The **Loch Lomond & The Trossachs National Park Authority** has a National Park Plan dealing with a wide range of community and environmental issues, and has published (2008) a consultation draft Local Plan for its area, containing the following policies:

“RENEWABLE ENERGY

Scale and Type of Renewable Energy

For the purposes of the local plan, large-scale wind energy is defined as wind farms generating over 20MW with multiple wind turbines; medium-scale wind energy as a scheme generating between 1MW and 20MW with multiple turbines; and small-scale wind energy as a scheme generating below 1MW with turbine(s) below an overall height of 20 metres, including micro-generation.

Policy REN1 Wind Renewable Energy Projects

Proposals for medium and small-scale wind energy generation will be supported where:

- a) the siting, design, access and scale of the proposal, its cumulative impact and required future support infrastructure do not create a detrimental impact on landscape, natural or cultural heritage;*

- b) there are no significant adverse impacts on residential amenity or disruption to the tranquil enjoyment of parts of the Park by virtue of proximity, noise generation, shadow flicker, lighting or visual impact;*
- c) all power line connections are placed underground or do not appear prominent in the landscape;*
- d) any necessary access provision does not adversely affect highway safety or the rural road network; and,*
- e) there is provision for the site to be restored once equipment is redundant.*

Large-scale wind renewable energy projects will not be supported within the Park boundaries. An Environmental Assessment will normally be required for any large-scale schemes submitted.

Reason for Policy

Policy REN1 takes account of the particular landscape and ecological and cultural sensitivities of the National Park, together with the Renewable Energy Resource Assessment for the National Park, radar issues and grid capacity, which make the acceptability of large-scale wind energy production proposals in the Park unlikely. Proposals for small-scale wind turbine developments designed to serve local communities and businesses will be supported where they do not have adverse impacts on the landscape or other conservation interests. The incremental development of wind turbines in any locality will be resisted where this would harm the character of the landscape through cumulative impact.”

And

“Policy REN5 Renewable Energy Development Adjacent to the National Park Boundary

The National Park Authority as a statutory consultee will object to renewable energy developments outwith the Park where:

- a) they will individually, or cumulatively with other developments or proposals, have an adverse visual impact on the landscape setting of the Park (principal gateways to the Park have been identified as being particularly sensitive to landscape change);*
- b) they result in significant negative impacts upon Natura 2000 sites, protected species or biodiversity within the Park, from cross boundary effects; and*
- c) they result in significant adverse impacts upon residential amenity by virtue of proximity, noise generation, shadow flicker, lighting, or visual impact.*

Reason for Policy

Renewable energy developments close to the National Park boundary can have a significant visual impact on the Park area. The Park Authority has an obligation to ensure that natural heritage, community, recreational and tourism values are taken into account in decision-making on development proposals.”

Some impacts associated with large turbines, especially visual and landscape impacts, may be experienced in other areas outwith the bounds of the plan area, apart from the National Park. These other **Neighbouring Planning Authorities** either have established Development Plan policies or are also preparing/reviewing Supplementary Planning Guidance for renewables developments in their areas. These policies will have a bearing on the assessment of cumulative environmental impacts. The neighbouring Authorities will be consulted on the draft Stirling Supplementary Planning Guidance.

Table 2: Planning policy framework for neighbouring areas:

Other Neighbouring Planning Authorities	Development Plan and other policies (some authorities also reviewing policies and/or preparing Supplementary Planning Guidance):
Perth & Kinross	Structure Plan: A permissive policy subject to criteria being satisfied. (2003); Highland Area (2000) & Strathearn (2001) Local Plans contain similar policies. "Supplementary Planning Guidance for Wind Energy Proposals in Perth & Kinross" (2005) n.b. Council currently investigating cumulative impact issues in conjunction with neighbouring Authorities
Clackmannanshire	<i>"Proposals for renewable energy developments will be considered positively provided that they have no significant adverse impact on the built or natural environment. There will be a presumption in favour of smaller renewable energy schemes (less than 25kW peak electrical output) provided that they do not result in any significant harm to the visual amenity, landscape or habitats and do not result in unacceptable noise intrusion. Wind farm developments will not normally be permitted within areas of Green Belt or in any part of the Ochil Hills". ("Clackmannanshire Development Plan" 2008)</i> n.b. Same Structure Plan area and policy as Stirling for the time being.
Falkirk	<i>"The Council's 2003 Renewable Energy Study mapped this complex range of constraints and concluded that potential was limited to smaller scale facilities of up to 22.5MW. Consequently, it has not been considered appropriate or necessary at this stage to identify specific areas of search, but rather to guide development through the criteria set out in Policy ST21. The implications of the recent requirement in SPP6 to identify broad areas of search for wind farms in excess of 20MW will be reviewed."</i> (Local Plan finalised draft 2007; Proposed pre-Inquiry Modifications 2008)
Glasgow/Clyde Valley Joint Structure Plan :	<i>"Potential areas of search for significant wind farms" - all well south of Stirling boundary (2008)</i>
North Lanarkshire	<i>"presumption against large-scale wind farms outwith the search areas" (consultation draft Local Plan 2007)</i>
East Dunbartonshire	<i>"The development of windfarms will be resisted in the Campsie Fells and Kilpatrick Hills Regional Scenic Areas."</i> (Local Plan 2005)
West Dunbartonshire	A permissive policy subject to criteria being satisfied – but reiterates absence of Structure Plan areas of search (Local Plan finalised draft 2007)

3.1.4 Other relevant non-Planning policies and strategies

Table 3: Stirling Council and Community Planning Partnership PPS context

Policy documents:	
Local Biodiversity Action Plan*	2004 (updated 2008)
Sustainability Development Strategy	2006 (Action Plan 2007)
Stirling City Heritage Trust Action Plan	2008 - 09
Community Plan	2005 - 2020
Single Outcome Agreement	2008/09
Shaping Stirling: Strategic Plan	2008 – 2012

* The Council's Local Biodiversity Action Plan is not especially clear in terms of the spatial pattern of locally significant habitats and species. However the Development Plan already

incorporates a commitment to take account of the LBAP and it is intended that new policies will be implemented in that context. The impact of the statutory habitat and species conservation framework has already been noted above.

The SNH – commissioned “*Landscape Character Assessment*” reports covering the Plan area are an important source of descriptive data, analysis and recommendations, though they pre-date the recent trend to very large turbines on commercial wind farms.

The *National Park Plan* (2007) although not a Development Plan introduces principles such as the conservation of the ‘Special Qualities’ of the Park. The Park Authority has used these principles as a basis for consultation responses on wind farm proposals within the Stirling area that it considers have potentially adverse visual impacts (in views from and of the Park) cumulatively affecting the ‘Special Qualities’ of landscape.

3.1.5 Relationship with other legislation, guidance and Environmental Objectives

The overall context for development planning for renewable energy is of course the Government’s aspirational target for the renewables contribution to national energy output, as revised from time to time by Ministerial statements. These national output goals are not expressed in any way relative to local area ‘contributions’ or targets. There is therefore no national locational strategy for contributing developments. Planning Authorities are in effect left to seek an ‘environmental capacity’ for their area (as per SPP6 ‘Summary’ quoted above).

The projects with the largest proposed outputs are considered and determined through the separate Electricity Act procedures, but the planning guidance available to the Consents Unit appears to be no different from that available to Local Planning Authorities. Larger schemes may have to take more cognisance of the capacity of the national electricity transmission grid to accept and cope with inputs. SPP6 advises the Local Authorities to take account of grid connection and capacity issues but not to regard them as a constraint upon granting consent to otherwise acceptable proposals. The major north – south (“Beauly – Denny”) grid upgrade still awaits confirmation.

The Government planning policies and guidance considered to be of principal relevance are those listed in Table 4 below. The main relevant general environmental objectives derive from the Government planning policies and guidance documents listed in the Table 1.

Table 4: Wider scale environmental protection/enhancement policies & objectives

Archaeology	NPPG5 & PAN42 – <i>Conservation and recording of archaeological interest. Significant number of rural SAMs and archaeological sites. Developments may impact on archaeological resources</i>
Historic Environment	SPP23 – <i>Protection and conservation of the whole range of heritage interests. Significant number of rural Listed Buildings, Historic Gardens and other heritage features. Developments may impact on historic heritage resources</i>
Conservation Areas	PAN71 – <i>New development to conserve and enhance character of CAs. Significant number of village CAs. Wind farm developments may affect setting of CAs. May be a demand for small turbines within CAs.</i>
Economic Development	SPP2 – <i>Promote economic development in rural areas while maintaining environmental quality. Wind farms provide construction jobs and limited operational jobs.</i>

Table 4 (cont.):

Flooding	SPP7, PAN69 – <i>Development should not exacerbate flood risk in other areas. Wind farms are often on watersheds or in other locations where care is needed to avoid disruption of flow patterns.</i>
Green Belts	SPP21 – <i>Protecting and enhancing the landscape setting of urban areas as part of the overall settlement strategy. Existing policy presumes against wind farms in Green Belts.</i>
Natural Heritage (1)	NPPG14, PAN60 – <i>Protection and conservation of the range of natural heritage resources. Most such resources are in the Countryside areas, as are large-scale turbine developments. Likelihood of development proposals being in proximity of protected sites, species, biodiversity features.</i>
Natural Heritage (2)	Nature Conservation (Scotland) Act 2004 – ‘ <i>duty ... to further the conservation of biodiversity</i> ’
Renewable energy	SPP6, PAN45 – <i>Encourage renewable energy generation projects in appropriate locations.</i>
Rural development	SPP15, PAN73 – <i>Increase development opportunities in rural areas <u>while maintaining environmental quality.</u></i>
Water management	PAN79, PAN61, WEWS Act, RBMP – <i>Promote sustainable drainage systems; avoid diffuse pollution; etc. Possible conflict with water quality objectives during site development.</i>
Waste Management	SPP10; PAN63 – <i>Encourage Waste minimisation, re-use, recycling ahead of disposal. Operation of wind turbines substantially waste-free.</i>
Transport	SPP17 – <i>Supporting rural economy and communities by guiding development to accessible, sustainable locations. Feasibility of access may be a locational factor.</i>

Most Scottish Government planning policy and guidance is being rationalised into one document. Other potentially relevant PPS will be reviewed but are not considered likely to introduce significant additional or different objectives:

3.1.6 The **Stirling Development Plans** (including Local Plan Alterations to August 2007) are considered to provide full coverage of environmental protection policies in accordance with international, national and local requirements. (All Development Plan documents are available at <http://www.stirling.gov.uk/index/services/planning/developmentplan.htm>).

Relevant policies are listed in the following table:-

Table 5: Development Plan environmental protection/enhancement policies

Policy area	Structure Plan	Local Plan
Key principles: Primacy of environmental protection & enhancement; promotion of sustainable development; precautionary principle if potential for irreversible environmental impacts	SD1	KEY1, KEY2
Development in Countryside to be necessary and justified; environmental impacts to be assessed; maintain local character	ENV3	E7
Constraints on development affecting protected landscapes (AGLVs, Designed Landscapes).	ENV2, ENV6	E15, E17
Constraints on development affecting Green Belts	ENV4	E16

Table 5 (cont.):

Constraints on development affecting Built Heritage (settings of Listed Buildings & Conservation Areas)	ENV6	E45
Constraints on development affecting other Historic heritage (Ancient Monuments, archaeological sites/interest)	ENV6	E47 - 50
Constraints on development affecting international, national and local nature conservation designations; wildlife and biodiversity interest generally	ENV1	E54 - 55
Opportunities for environmental enhancement through development	ENV1, ENV5	
Protection/retention of trees, hedges; new planting in association with development	ENV5, ENV8	E6, E51 – 52, E54
Avoidance of pollution; need for environmental assessment		E60

As the Supplementary Planning Guidance will be prepared in this context it is considered that the objectives of the legislation and policies briefly referred to in 3.1.5 and Table 4 above will be adequately addressed, even where new versions of the relevant SPPs, etc have been issued. There is, however, a recognised gap in the Development Plan with regard to the policies and measures now in place relative to protection and enhancement of water quality, arising from the Water Framework Directive and expressed through the Water Environment and Water Services Act and River Basin Management Planning. The proposed SPG will also incorporate any locally applicable regulatory measures introduced more recently (e.g. weather radar consultation zone).

3.2 Relevant aspects of the current state of the environment

The Stirling area enjoys a generally high quality natural and cultural environment in terms of landscapes, habitats, biodiversity and built heritage. The Plan area to be subject to the Supplementary Planning Guidance has the following designated resources:

Table 6: Plan area conservation and planning 'heritage' designations:

Designation:	In 'Countryside' areas	Additional in town and village areas
Listed Buildings	c.318	c.1126
Conservation Areas	2	24 (3 'Outstanding')
Scheduled Ancient Monuments	c.130	17
RAMSAR	1 (same as SPA)	-
SPA (Natura)	1 (significant overlaps with SSSI)	-
SAC (Natura)	8 (significant overlaps with SSSIs)	-
NNR	1 (+ part of another)	-
SSSI	34 (+ parts of another 10)	-
LNR	1	-
Historic Gardens & Designed Landscapes	11	1
NSA	1 (part)	-
AGLV	5 areas (parts of 3 areas originally designated; c. 50% of Plan area)	-
Green Belt	4014 ha	-

These natural and cultural assets are to varying degrees vulnerable to adverse visual impacts and to direct and indirect development impacts, such as disturbance and potentially direct damage affecting habitats and species, loss of archaeological features, effects on the setting

of Listed Buildings and SAMs, siltation/pollution of riparian habitats (during construction operations), etc., etc. Particular status and conservation concern attaches to the *Natura* sites in the Plan area (See Appendix 1). Potential impacts on these sites and their 'qualifying interests' will be carefully assessed. 'Protected species', such as Bats spp., that may be vulnerable to turbines, can occur outwith designated sites.

The protection afforded to natural and built heritage features through the application of other Development Plan policies, through legislative measures, and through the regulatory roles of key agencies will greatly reduce the likelihood of direct adverse environmental effects.

There is a small part of one NSA in the north of the plan area. Otherwise the only nationally recognised landscapes are the Inventory Gardens/ Designed Landscapes. However, the area to which the SPG will relate is intervisible with significant parts of the eastern side of the Loch Lomond & The Trossachs National Park, including NSAs. The Park Authority, as already noted, may regard an increased level of wind turbine development in areas around the Park as an adverse environmental (landscape character and quality) impact.

Stirling has significant Green Belt areas. These have not been reconsidered following publication of SPP21 and a separate review is being carried out as part of the preparation of the forthcoming Local Development Plan (initially covering only the eastern Green Belts).

As indicated in the Methodology section below there are currently some difficulties with quantifying (and therefore monitoring) environmental and other relevant baseline data because of the changed Plan area for which the Council is now responsible. Even more sites and areas designated for various reasons are now bisected by the Plan boundary. For nature conservation sites there is usually no disaggregation of the reasons (e.g. 'Qualifying Interests' for *Natura* sites) for which they are identified.

The scope of Data available and to be used, in updated and/or disaggregated form, is indicated in the Council's web-published 'Stirling by Numbers':

http://www.stirling.gov.uk/sbn2005_06_full.pdf

3.3 Relevant environmental problems

3.3.1 Wind turbines in their modern form are usually developed as part of the national policy responses to energy security and climate change. They are therefore in principle an environmental 'good'. However, they bring, mainly when individually large-scale or grouped in substantial 'wind farms', a number of well-recognised potential environmental problems. Chief among these are :-

- Landscape and visual impacts – affecting landscape character and quality, the setting of towns, villages, heritage features, etc, and the appreciation and enjoyment of the environment.
- Ecological impacts – mainly associated with on-site vegetation and habitats, but also birds and bats likely to traverse development sites. Ecological impacts may overlap with impacts on the water environment and soils/geology.
- Water quality impacts – mainly during the construction period.
- Soil/surface geology impacts – especially associated with peatlands, but also quarrying of local material, and again largely during construction.

Lesser problems occasionally assuming significance in particular circumstances include:-

- Noise generation and propagation
- Shadow flicker

The Plan area already has two wind farms in place, another approved and awaiting construction, and several others at advanced stages of the planning process. There are also several projects in neighbouring Local Authority areas that are or will be visible from the Plan area. The Council has, consequently, significant experience of considering, determining and commenting upon wind turbine development proposals, and of the issues and problems arising during the construction and operational periods. The multiplicity of projects and

proposals in and around the area (see Table 7 and Map 1) means that the question of cumulative effects and their assessment looms large.

Table 7: Turbine developments and proposals within Plan area relevant to cumulative impact assessment:

Site name:	Indicative OS Grid ref:	Turbines:		Status:
		No.	Ht.	
Braes of Doune	NN725105	36	100m	Operational
Earlsburn	NS697884	15	110m	Operational
Craigengelt	NS724865	8	125m	Planning application approved
Ballindalloch Muir	NS577899	9	125m	Planning application submitted
Earlsburn (North)	NS680905	9	115m	Planning application submitted
Muirpark Farm	NS739878	11	125m	EIA scoping; application expected February 2009 (not on SNH map)
Loaninghead	NS514904	3	100m	EIA scoping
Kingsburn	NS649880	8	-	EIA scoping (but not being progressed at present)
<i>Anemometer masts:</i>				
Rosehill	NS862863	?3	-	Application submitted

Map 1: Existing and proposed wind farms in Stirling and adjacent areas



Extract from SNH map:
'Windfarms in Scotland (April 2008)'

Legend:
 Red Installed and approved sites
 Brown Application submitted
 Mauve EIA scoping stage

The presence of the two existing wind farms (Braes of Doune & Earlsburn) means that some effects during construction and operation are no longer 'potential' but have been experienced. Braes of Doune and its access tracks are sited on hillsides with significant areas of blanket peat. There were some instances of erosion leading to temporary pollution of burns tributary to the River Teith SAC. Planned disposal of excavated peat also led to some problems and redesign of proposals. There has been at least one bird strike incident involving a Red Kite.

3.3.2 The potential significance of impacts is affected by the quality and significance of the receptors. Stirling has a high quality landscape and cultural heritage, as summarised above (3.2 and Table 6). There are a number of nationally and internationally important habitat and wildlife resources in the Plan area, and it shares a lengthy common boundary with Scotland's first National Park. It is an important recreation and tourism destination in its own right and provides a significant element of the visitor experience for many people heading for the National Park and other areas of the Highlands. The Environmental Report will set out these resources and their significance in more detail.

3.3.2 Prominent amongst the qualities identified is that of landscape. As already emphasised, landscape quality and character, and its potential significance in reaching a policy position on future wind turbine developments has been the subject of recent study and recommendations, and is likely to underpin the proposed Supplementary Planning Guidance.

4 Scope and Level of Detail of Proposed Environmental Assessment

4.1 Scope of SEA relative to Scope of PPS

As indicated, the Supplementary Planning Guidance is intended to provide policy and guidance for all scales of turbine development. However, in terms of Government renewable energy targets, and landscape-scale and cumulative impacts, of greatest significance are multiple-turbine developments of turbines of more than 80 metres height (to blade tip). Therefore the SEA will be largely focused on the environmental effects of these larger scale developments. Consideration will also be given to smaller scale turbines, particularly the potential cumulative effects, e.g. of moderate-sized single turbines across landscapes, and of small or micro-turbines in urban situations.

4.2 Alternatives to the proposed PPS

For the purposes of this SEA the possible alternatives for the proposed Supplementary Planning Guidance in terms of a spatial strategy for large turbines are considered to be:

- (a) As indicated above, the move to prepare SPG derives largely from a landscape sensitivity/capacity study that recommends a very restrictive planning policy towards 'commercial' scale wind turbines additional to those already operating or approved. This restrictive policy will be one option to be assessed for its potential environmental effects.
- (b) Continuation with the existing policy framework in the Structure Plan and Local Plan is an option. This defines (but only diagrammatically) 'Exclusion Zones' based on topographical/landscape and cultural features, but leaves fairly extensive 'Areas of Search' within which proposals may be acceptable if meeting certain other criteria.
- (c) Identifying the whole plan area outwith the National Park as an 'area of search', subject only to statutory constraints as set out elsewhere in the development plan and in national planning policy and guidance. This option would be a simplistic version of the PAN45 Annex 2 approach.
- (d) A variation on option (a) incorporating a 'community buffer' element as well as primacy for landscape protection.

In practice, the existing development plan policies (option b) predate SPP6 and so do not meet the Government's desire for Planning Authorities to update the policy base in the light of SPP6. So to represent a realistic option it would still require some clarification of the extent of the 'Exclusion Zones' (The Council's reasons for wishing to adopt new policy include the lack of precision in the Structure Plan policy framework, which does not provide clear locational guidance to developers and other interested parties). The more 'laissez – faire' alternative approach (c), while it may align well with the Government's energy policy targets would be unlikely to accord with the landscape sensitivity and capacity position recently adopted by the Council.

However, always bearing in mind that environmental concerns will not be the only factors in determining policy and in subsequent decisions on development proposals, these four are considered to be realistic and therefore 'reasonable alternatives' for the purposes of SEA.

4.2 Scoping in/out of SEA issues/likely significant environmental effects

SEA issues	Scoped:		Why scoped out?
	in	out	
biodiversity, flora, fauna	√		
Population & human health	√		
soil	√		
water	√		
air		√	<i>It is considered that policy influencing the number/scale of wind turbines in one area need not bear any relationship to the scope for turbines in other areas; nor need it determine that more air-polluting or CO2-emitting generators will be substituted (locally or elsewhere)*</i>
climatic factors		√	
material assets	√		
cultural heritage	√		
landscape	√		

* This is considered to be a difficult but significant issue to be addressed in an SEA for a Policy relating to a small geographical area. The Consultation Authorities' views as to whether it can or should be 'scoped out' will be particularly welcomed.

4.3 Methodology for assessing environmental effects

The draft environmental objectives/tests for SEA purposes are:-

Does the proposed Supplementary Planning Guidance

- Contribute to the conservation of local biodiversity?
- Contribute to the conservation of nationally and internationally recognised wildlife habitats and species?
- Help to avoid adverse impacts on population and human health?
- Help to avoid adverse impacts on the environment and amenity of communities?
- Contribute to the conservation of important soils/surface geology?
- Contribute to the retention or improvement of water quality throughout the water environment?
- Contribute to sustainable flood management?
- Contribute to the conservation of existing material assets and creation of new ones?
- Help to avoid waste of resources?
- Contribute to the conservation of the historic heritage?
- Contribute to the conservation of landscape character and quality?
- Contribute to the conservation of locally and nationally designated landscapes?

- Contribute to Green Belt objectives?
- Help to avoid cumulative environmental effects potentially arising from proliferation or concentration of developments?

It is proposed to use a relatively simple assessment matrix, giving potential outcomes weighted positive, negative or neutral values against the stated environmental objectives for the proposed policy approach and the three alternatives outlined above. The environmental objectives are based on the Scoping tabulation, the potential environmental problems identified in section 3.3, and the other related planning and environmental issues listed in Tables 1 and 4. Separate assessments may be carried out for parts of the proposed policy covering smaller-scale turbines.

Many of the potential environmental effects of implementing the SPG are secondary to the actual developments that it is intended to enable and influence (e.g. surface water management). There will be analysis of site specific effects, for instance direct impacts on existing wildlife habitats, but the policy is enabling rather than site specific so it is not known to what extent these situations will arise. Without a prescriptive strategy for a quantifiable amount/extent of resulting development, it is considered that to attempt a more sophisticated assessment may not be supportable with evidence.

Sample matrix:

Assessment Matrix		Alternative 1		Alternative 2		Alternative n	
		<i>Constrain within landscape capacity</i>		<i>Refine existing policy</i>		<i>etc</i>	
SEA topics and Objectives		+/- /N	Comment	+/- /N	Comment	+/- /N	Comment
Cultural heritage & Landscape	Conserve landscape character and quality						
	Protect and enhance designated landscape areas						
	Protect Green Belts from inappropriate development						
Mitigation & Enhancement							
<i>Where 'Score' is Imp</i>							

Score symbol*	Significance of effect/impact
++	High positive
+	Positive
N	No significant environmental effects
-	Negative
--	High negative
?	Unknown (or more data required)
Imp	Depends on how it is implemented (see Mitigation)
LT, MT, ST	Long, Medium or Short Term
Perm, Temp	Permanent or temporary effect/impact
C	Cumulative impact
▼	Scoped out

* More than one symbol to be shown if appropriate

The matrix will give an indication of which environmental areas may experience adverse (or positive) impacts and therefore point to potential refinements to the Supplementary Planning

Guidance, and to how it is implemented, such that mitigation of identified problems can be sought.

[n.b. When this matrix format and assessment style was proposed for a different policy SEA recently it was not, eventually, used in quite this form. However, wind turbines do tend to have a defined 'life' and so an attempt will be made to introduce the time-scale elements of the analysis, and much more attention will be given to cumulative effects].

5 NEXT STEPS

5.1 Indicative consultation timetable

If the Statutory Consultees are satisfied with the Scoping Report it is considered likely that a Consultation draft of the SPG and the Environmental Report could be published by mid-March, with a subsequent consultation period of 8 weeks envisaged.

5.2 Anticipated milestones

Dependent upon the outcomes of Scoping and further consultation, the SPG might be adopted in May/June.

**Environment Services
Stirling Council
12 February 2009**

APPENDIX 1 – *Natura* sites in or partly in the Supplementary Planning Guidance area:

- 1 Kippenrait Glen SAC
- 2 Flanders Mosses SAC
- 3 Ben Heasgarnich SAC
- 4 Meall na Samhna SAC
- 5 Ben Lawers SAC
- 6 River Tay SAC
- 7 River Teith SAC
- 8 Endrick Water SAC
- 9 Firth of Forth SPA

APPENDIX 2 – Map of Plan area (Map2)

See separate document

APPENDIX 2 – Map of Plan area (Map2)



Created by: David Thorgood on 12-Feb-09