

# **Renewable Energy for the Scottish Borders**

## ***Environmental Report***

### **I PREFACE**

The purpose of this Environmental Report is to assess the environmental impact of the Draft Supplementary Guidance on Renewable Energy for the Scottish Borders in accordance with the Environmental Assessment (Scotland) Act 2005.

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## **1.0 NON-TECHNICAL SUMMARY**

### **1.1 Renewable Energy and the SEA Process**

- 1.1.1 The Council's draft Supplementary Guidance (SG) entitled "Renewable Energy" encompasses updates of previous Supplementary Planning Guidance (SPG) on Wind Energy 2011 and Renewable Energy 2007 as a single document. Following the Examination of the proposed new Local Development Plan (LDP), as recommended by the Reporter, policy ED9 – Renewable Energy Development confirms Scottish Borders Council will produce this SG and submit it to Scottish Ministers within 12 months of the adoption of the new Plan. The new Plan was adopted on 12<sup>th</sup> May 2016.
- 1.1.2 Policy ED9 states that the SG will accord with Scottish Planning Policy (SPP) and should set out detailed policy considerations against which all proposals for wind energy and other forms of renewable energy will be assessed, based on those considerations set out in para 169 of SPP. The guidance on wind energy will contain the onshore spatial strategy as required by SPP, identifying areas where wind farms will not be acceptable, areas of significant protection, areas with potential for wind farm development and indicating the minimum scale of onshore development that the framework applies to. The SG will take cognisance of responses received during the public consultation.
- 1.1.3 The SG will further develop policy ED9 in respect of the development of renewable energy schemes in the Borders. The SG will be of benefit to a range of users and interested parties including developers, local community groups, national bodies and consultees. The SG when formally approved after public consultation will be a material consideration in processing planning application for renewable energy proposals.
- 1.1.4 The Council submitted a Scoping Report to the SEA Gateway on 12 August 2016. The process focused on the likely effect of the SG on a range of environmental issues. The Scoping Report confirmed the SEA would focus on the following perspectives: Biodiversity, flora and fauna; Population, human health and well being; Soil; Water; Material Assets; Air, Cultural Heritage, Climatic factors and Landscape.
- 1.1.5 A range of environmental issues are identified in the LDP 2016 and it is considered that the main environmental issues that affect the SG relate to retention of quality of landscape and biodiversity matters. The SG seeks to support renewable energy proposals where they have no adverse impact on a range of environmental characteristics or where there is a minor effect or appropriate mitigation can be carried out. It is not thought that the SG will result in any significant adverse effects on the environment and it may reduce pressures on quality landscape and direct potential development away from areas of sensitive biodiversity.
- 1.1.6 Without the SG it is stated that future environmental changes would be that sensitive landscapes and habitats would not be sufficiently protected, the policy framework would not comply with national planning guidance and there would be continuing uncertainty as to where renewable energy, particularly wind farms, could be supported in the Scottish Borders.
- 1.1.7 The environmental assessment of the SG was carried out in accordance with Schedule 2 of the Environmental Assessment (Scotland) Act 2005, Scottish Borders Council considered the effects of the SG on a range of SEA perspectives. Policy ED9 and the supplementary guidance to it as well as the spatial strategy in the SPG were assessed against the SEA perspectives.

- 1.1.8 The assessment of the SEA perspectives found that with regards to policy ED9 and the supplementary guidance to it for : biodiversity, flora and fauna; population, human health and wellbeing; soil; water; air; material assets and cultural heritage there would be an overall positive impact. Climatic factors would have a very positive outcome and landscape would have a neutral outcome. In terms on the spatial framework: Biodiversity, flora and fauna; soil and cultural heritage these will have a positive outcome. Population, human health and wellbeing; water; air, climatic factors, material assets and landscape will have a neutral outcome (largely due to them not being identified in the spatial framework).
- 1.1.9 One alternative was considered, this was to maintain the status quo with regards to wind energy policy. The outcome of the consideration was that keeping the status quo would mean that national policy guidance would not be adhered to and that there may be inconsistency and uncertainty regarding the determination of wind farm applications in the Borders .
- 1.1.10 Development plan policies will be used to mitigate against any potential adverse likely significant effects from renewable energy proposals. It is considered that the policies and the supplementary guidance will ensure adequate consideration and protection is given to all SEA perspectives.
- 1.1.11 The majority of monitoring is already done by the Council via enforcement of conditions or Government bodies or agencies. The monitoring report being prepared for the new forthcoming Local Dev Plan will consider how effective the monitoring procedures are and identify any issues arising with regards to approvals for renewable energy proposals.

## **2.0 INTRODUCTION**

### **2.1 Purpose of this Environmental Report and key facts**

2.1.1. As part of the preparation of the SG on Renewable Energy the Scottish Borders Council is carrying out a Strategic Environmental Assessment (SEA). SEA is a systematic method for considering the likely environmental effects of certain plans, programmes, strategies (PPS). SEA aims to:

- integrate environmental factors into PPS preparation and decision-making;
- improve PPS and enhance environmental protection;
- increase public participation in decision making; and
- facilitate openness and transparency of decision-making.

2.1.2 SEA is required by the Environmental Assessment (Scotland) Act 2005. The key SEA stages are:

- **Screening:** determining whether the PPS is likely to have significant environmental effects and whether a SEA is required
- **Scoping:** deciding on the scope and level of detail of the Environmental Report, and the consultation period for the report - this is done in consultation with Scottish Natural Heritage, The Scottish Ministers (Historic Scotland) and the Scottish Environment Protection Agency
- **Environmental Report:** publishing an Environmental Report on the PPS and its environmental effects, and consulting on that report
- **Adoption:** providing information on: the adopted PPS; how consultation comments have been taken into account; and methods for monitoring the significant environmental effects of the implementation of the PPS

**Monitoring:** monitoring significant environmental effects in such a manner so as to also enable the Responsible Authority to identify any unforeseen adverse effects at an early stage and undertake appropriate remedial action.

2.1.3. The purpose of this Environmental Report is to:

- provide information on the SG;
- identify, describe and evaluate the likely significant effects of the Strategy and its reasonable alternatives;
- provide an early and effective opportunity for the Consultation Authorities and the public to offer views on any aspect of this Environmental Report.
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The key facts relating to the SG are stated in table 1

Table 1 – Key Facts relating to SG

<p><b>Responsible Authority</b> Scottish Borders Council</p>
<p><b>Title of the Strategy</b> Supplementary Guidance (SG) for Renewable Energy</p>
<p><b>What prompted the Strategy?</b> To accord with Policy ED9: Renewable Energy Development in the Local Development Plan (LDP) 2016. The policy requires SBC to produce guidance to set out the detailed policy considerations against which all proposals for wind energy and other forms of renewable energy will be assessed, including reference to the considerations within paragraph 169 of Scottish Planning Policy.</p>
<p><b>Strategy Subject</b> Land use planning relating to renewable energy developments.</p>
<p><b>Period covered by the SG</b> The lifespan is 5 years from May 2016</p>
<p><b>Frequency of updates</b> The SG will be incorporated into the Development Plan and will be monitored and updated accordingly with the requirements of the Planning Act.</p>
<p><b>Strategy area</b> The Strategy will cover the entire Scottish Borders area (4743 sq kms.)</p>
<p><b>Purpose of the Strategy objectives</b> The objective is to produce a guide for the Development Management process when dealing with applications for renewable energy. The document will incorporate a spatial framework, reference to outputs from a Landscape Capacity and Cumulative Impact study, further guidance on the criteria referenced within LDP policy ED9 (Renewable Energy Developments) and good planning guidance on other types of renewable energy.</p>

## Contact point

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## 2.2 SEA activities to date

2.2.1 Thus far chronology of the SEA process is as follows:

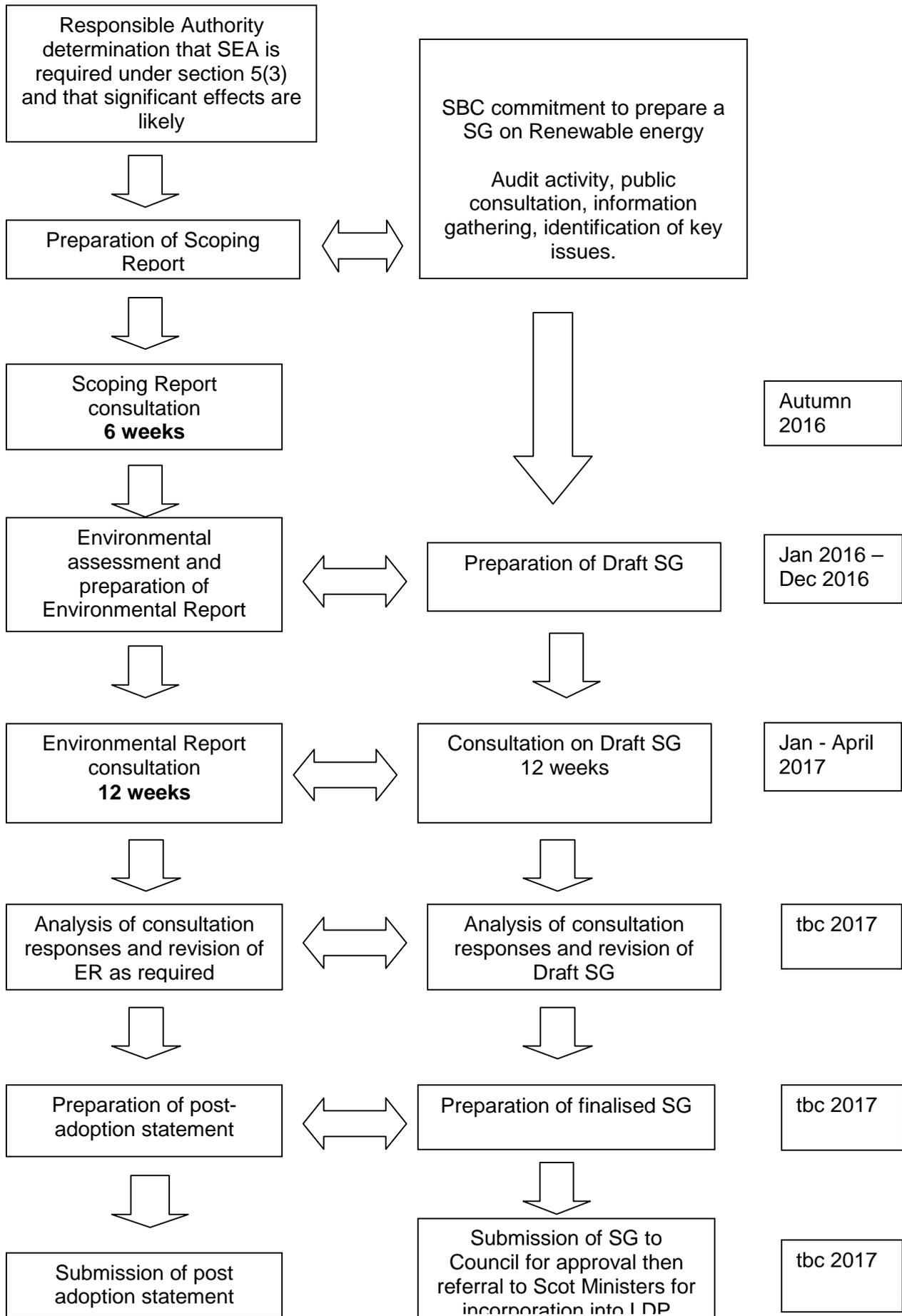
- Aug 2016 Scoping Report submitted to SEA Gateway

2.2.2 Consultation timetable:

- Jan 2016 Draft SG on Renewable Energy published for formal public consultation
- Jan 2016 Environmental Report submitted to SEA Gateway and published on the Scottish Borders Council website
- April 2017 Consultation period closes

2.2.3 The process to be undertaken for the Strategic Environmental Assessment (SEA) is shown on Diagram 1.

Diagram 1: Timetable



## 3.0 CONTEXT

### 3.1 Outline and objectives of the SG on Renewable Energy

- 3.1.1 National planning policy and guidance promotes and supports renewable energy to facilitate the transition to a low carbon economy. The Climate Change (Scotland) Act 2009 requires all public bodies to contribute to the emissions targets in the Act and to deliver the Government's climate change programme. The need to mitigate the causes of climate change and the need to adapt to its short and long term impacts should be taken into account in all decisions within the planning process. National Planning Framework 3 and SPP are supportive of promoting renewable energy and also identify the need to support other key sustainability principles of social, economic and environmental considerations
- 3.1.2 Scottish Borders Council has been proactive in supporting a range of renewable energy types. In implementing statutory duties to support both renewable energy and protect the landscape and the environment, the Council seeks a balance between these objectives within the decision making process. This is particularly a more challenging balance with regards wind farms proposals. It is therefore vital that the Council has up to date Supplementary Guidance in place which takes cognisance of all relevant national and local policy advice and legislation in order that it can be used within the Development Management process and considered at Public Inquiries and Hearings.
- 3.1.3 This SG is considered, concise and easily navigated, making reference and expanding upon what are considered to be the salient matters to be addressed and giving electronic links to further information on specific subjects where required. This SG produces the following main key outputs in order to guide the Development Management process when dealing with all types applications for renewable energy (these are expanded upon from para 3.1.4) :
- Guidance on Renewable Energy types
  - Spatial Framework relevant to consideration of wind energy proposals
  - Landscape Capacity Studies relevant to wind energy proposals
  - Further guidance on criteria referenced within LDP policy ED9 – Renewable Energy Developments
- 3.1.4 Policy ED9 incorporates reference to the consideration of Other Renewable Energy Development (i.e. proposals other than wind energy) . The SG consequently refers to some of the more common and emerging types, making reference to good practice procedures Development Management or any other interested party should consider. These are micron renewables including photovoltaics, field scale solar photovoltaics, biomass, energy from waste, anaerobic digestion, hydro and ground source heat pumps.
- 3.1.5 With regards to wind farms, the spatial framework as laid down in table 1 of SPP in essence seeks to identify areas where wind farms will not be acceptable, areas which have significant protection and areas which have potential for wind farms. The spatial framework is a requirement for this SG and fig 6 within the SG confirms the finalised spatial framework as required by SPP. This is also included in Appendix D of this Report.
- 3.1.6 Whilst the spatial identifies areas of protection and potential for wind farms, it takes no cognisance of landscape capacity issues which are material considerations for wind energy proposals. The importance and role of landscape capacity studies to give guidance to development management is acknowledged within the Scottish Government paper entitled "Scottish Planning Policy – Frequently Asked Questions". Consequently independent

landscape consultants Ironside Farrar carried out an update of their 2013 study entitled Landscape Capacity and Cumulative Impact within the Scottish Borders. In essence the study investigated the capacity of each of the Scottish Borders Landscape Character Areas to accommodate turbines taking cognisance of matters such as landform, approved turbines to date, impact on key receptors, the identification of opportunities and constraints and any cumulative impact issues.

3.1.7 Under the section entitled “Consideration of Wind Energy Proposals” within policy ED9 of the adopted LDP there are listed a number of subjects for Development Management to consider during the application processing period. This section expands upon the listed subjects by giving more detailed guidance and useful information where possible for the benefit of a range of users. Where relevant there is an additional guidance policy at the beginning of each subject within the SG.

3.1.8 The draft SG on Renewable Energy can be viewed on the Council’s website at the following link - [www.scotborders.gov.uk/renewablesq](http://www.scotborders.gov.uk/renewablesq)

### 3.2 Relationship with other plans and programmes

3.2.1 SEA plays an essential complementary role by ensuring that implementation of the strategy will mitigate negative, and develop positive, effects on the environment.

3.2.2 The strategy is intended to provide a sustainable framework that will assist social, environmental and economic development as well as increased environmental awareness and tourism. The statutory and advisory basis for these objectives, with local programmes already in train to assist in the process, are itemised in Table 2.

3.2.3 The strategy will have an influence on future strategic and local level planning.

Table 2: Relationship to Other Plans, Programmes and Strategies

	<b>Plan, programme or strategy</b>	<b>Key considerations for SPA</b>
<b>Biodiversity, flora and fauna</b>		
International	Convention on Wetlands of International Importance 1971 (amended 1982 and 1987) (Ramsar Convention)	Requirement to protect sites from loss or damage by development.
	Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora	Requirement for appropriate assessment.
	Directive 09/147/EEC on the conservation of wild birds	Requirement to protect and enhance ecological resources.

	UN Convention on Biological Diversity	Requirement to maintain diversity and distinctiveness.
	Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)	
	Pan-European Biological and Landscape Diversity Strategy (1995)	
	European Biodiversity Strategy to 2020	
National	Nature Conservation (Scotland) Act 2004	Duty to further conservation of biodiversity.
	Scottish Biodiversity Strategy	Broader scale conservation beyond designated sites.
	NPPG14 Natural Heritage (1999)	Sets national planning policy and provides further advice
	PAN60 Planning for Natural Heritage (2000)	
	The Scottish Forestry Strategy	Sets aims to conserve biodiversity
	2020 Challenge for Scotland's Biodiversity	Focuses on protecting and restoring healthy ecosystems
	Wildlife and Countryside Act	Protects wildlife, the countryside, National Parks, the designation of protected areas, public rights of way
	Scotland's Land Use Strategy 2015	Sets out priorities for protection /awareness of natural resources, biodiversity, etc
Local	Scottish Borders Biodiversity Action Plan	Requirement to maintain the area's Biodiversity
	Scottish Borders Woodland Strategy (2005)	Requirement to promote the area's woodland asset
	Scottish Borders Greenspace Strategy	Requirement to promote the greenspace asset
<b>Population and human health</b>		
National	Improving health in Scotland – the Challenge (2003)	Aims to deal with ill health and health inequalities
	Good Places, Better Health (2008)	On how the physical environment impacts on health and wellbeing
	Making the Links: Greenspace and the Partnership, Greenspace Scotland	Green spaces should be protected and promoted
	<ul style="list-style-type: none"> <li>Let's Get Scotland Walking – The National Walking Strategy</li> <li>A long-term vision for active travel in Scotland 2030</li> <li>Cycling Action Plan for Scotland 2013</li> </ul>	Boxes to be added

Local	Scottish Borders Joint Health Improvement Plan 2005 - 2010	Promotes a healthy environment
	Scottish Borders Core Path Plan	Promotes core paths and accessibility to services for residents
<b>Soil</b>		
International	EU Thematic Strategy for Soil protection (2005)	Aims to maintain and protect soil quality
National	PAN33 Development of Contaminated Land (2000)	Key national advice
	Scottish Soil Framework 2009	Information on pressures on soil including climate change and good soil management in Scotland
	State of Scotland's Soils	Examines actions arising from the Scottish Soils framework
<b>Water</b>		
International	Directive 2000/60/EC Water Framework Directive	Establishing a framework for action in the field of water policy
	Directive 2007/60/EC Flood Risk Management	Assessment and management of flood risk.
National	Water Environment and Water Services (Scotland) Act 2003	Requirement to produce River Basin Management Plans.
	Scotland River Basin Management Plan and Solway Tweed River Basin Management Plan	Controlled Activities Regulations (CAR).
	PAN79 Water and Drainage (2006)	Key national advice
	PAN61 Planning and Sustainable Urban Drainage Systems (2001)	
	The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended)	Provides regulations on developments which affect the water environment
	Flood risk management (Scotland) Act 2009	Requirement to prepare plans with the appropriate consideration of flood risks
	Tweed Catchment Management Plan	Plans concerning the River Tweed which should not be compromised by the SG
	Tweed Wetland Strategy	
	Local Flood Risk Management Plan	Identification of flooding issues and mitigation
	River Basin Management Plans	Identification of flooding issues and mitigation
<b>Air</b>		
International	Directive 08/50/EC Air Quality	Sets long term air quality objectives
National	The Air Quality Strategy for England, Scotland, Wales and Northern Ireland. Working Together for Clean Air (2000)	On reducing air pollution in the UK
	Local Air Quality Management Act (Part of the Environmental Act 1995)	Sets out requirements to reduce air pollution which the SG should contribute to
	Clean Air for Scotland 2015	National strategy to achieve the best quality

<b>Climatic factors</b>		
International	European Climate Change Programme	On fighting climate change
	Kyoto Protocol	Sets international targets and mechanisms for addressing climate change
National	UK Climate Change Programme	Outlines how the Kyoto Protocol target will be met
	Climate Change (Scotland) Act 2009	Sets targets for the reduction of greenhouse gas emissions and other climate change provisions
	Energy Efficiency and Micro generation: achieving a Low Carbon Future: A Strategy for Scotland (2008)	Sets a programme to meet carbon saving targets for Scotland
	Scotland's Climate Change Adaptation Framework	Sets out objectives and plans for adapting to climate change
	Biomass Action Plan for Scotland	Sets programme for biomass development in Scotland
	Zero WastePlan	National vision for promotion of recycling, cessation of landfill, contamination mitigation
<b>Material assets</b>		
National	Scottish Government Electricity Generation Policy Statement 2013	Considers changes required to the way Scotland generates electricity
	Scottish Government 2020 Routemap for Renewable Energy in Scotland	Outlines actions required to deliver targets in the Electricity Generation Policy Statement
	Securing a renewable future: Scotland's renewable energy (2003)	Sets national targets for renewable energy
	UK Energy White Paper (2003)	Sets out the challenge and targets for CO2 reductions
	Building a Better Scotland Infrastructure Investment Plan (2005)	Sets out delivery plan for investment across Scotland
<b>Cultural Heritage</b>		
National	NPPG5 Archaeology and Planning (1998)	Sets national policy
	NPPG18 Planning and the Historic Environment	
	Strategic Locational Guidance for Onshore Wind Farms in respect of the Natural Heritage (2009)	Offers guidance of the sensitivities of the natural heritage across Scotland to onshore wind farm development
	Historic Environment Scotland Policy Statement (2016)	Directs the planning system with regard to the consideration of listed buildings and other protected buildings
	Historic Environment Scotland Act (2014)	
	Managing Change in the Historic Environment	
<b>Landscape</b>		
International	European Landscape Convention (2000)	Requires protection and enhancement of landscapes
National	NPPG14 Natural Heritage (1999)	Sets national planning policy and provides further advice
	PAN60 Planning for Natural Heritage (2000)	

	PAN 65 Planning and Open Space (2008)	Advises on the well-being of open spaces
<b>Planning</b>		
National	Planning etc. (Scotland) Act 2006	Reform of the Scottish planning system
	Scottish Planning Policy	Sets national policy including guidance on each of the other SEA topics
	Circular 6/2013: Development Planning	Sets national policy
	National Planning Framework 3	Guides land use planning
Local	SESPlan	Part of the Scottish Borders Development Plan - sets out the strategic policy framework
	Scottish Borders Local Development Plan	Part of the Scottish Borders Development Plan – sets out the site specific detail and more local policies and proposals

### 3.3 Environmental perspectives and SEA objectives

3.3.1 A Scoping Report was submitted to the SEA Gateway on 12 August 2016 and considered by the three Consultation Authorities. The Scoping Report set out the proposed method by which to examine the Strategy and assess its impacts on a range of environmental issues. This process confirmed that the final report would focus on all nine identified SEA perspectives:

- Biodiversity , Flora and Fauna
- Population, Human Health and well being
- Soil
- Air
- Climatic Factors
- Material Assets
- Water
- Cultural Heritage
- Landscape

3.3.2 Table 3 identifies the key SEA objectives for each of the nine perspectives identified in para 3.3.1.

Table 3: SEA Objectives for the SG

<b>SEA topic</b>	<b>SEA objective</b>
	<ul style="list-style-type: none"> <li>• <b>Key Considerations</b></li> </ul>
Biodiversity, Flora and Fauna	To protect biodiversity and habitats in the Borders <ul style="list-style-type: none"> <li>• Protecting and enhancing species and habitats</li> <li>• Avoiding damage to, designated sites and protected</li> </ul>

	species
Population and human health	<p>To improve the quality of life and human health for communities in the Borders</p> <ul style="list-style-type: none"> <li>• Safeguarding the living environment of communities</li> <li>• Protecting the residential amenity, including noise and visual intrusion</li> <li>• Having no adverse effect on human health</li> </ul>
Soil	<p>To maintain soil and peat quality and avoid exacerbating pollution</p> <ul style="list-style-type: none"> <li>• Avoid and minimising soil and peat contamination and disturbance, and maintaining a high level of soil quality</li> <li>• Protecting and enhancing the geology of the Scottish Borders including natural landforms and areas of peatland</li> </ul>
Water	<p>To protect and enhance the status of the water environment</p> <ul style="list-style-type: none"> <li>• Protecting inland and coastal waters</li> <li>• Avoiding and reduce the risk of flooding</li> <li>• Ensuring sustainable use of water resources</li> <li>• Protecting and enhancing the water environment, including Groundwater Depended Terrestrial Ecosystems (GWDTEs)</li> </ul>
Air	<p>To protect current air quality</p> <ul style="list-style-type: none"> <li>• Protecting harmful toxins or gases from affecting air quality</li> </ul>
Climatic factors	<p>To reduce CO<sup>2</sup> emissions, reduce energy consumption and promote climate change adaptation</p> <ul style="list-style-type: none"> <li>• Contributing to the mitigation of and adaptation to climate change</li> <li>• Assisting with less CO<sup>2</sup> emissions being released into the atmosphere</li> </ul>
Material assets	<p>To ensure adequate protection and sustainable use of material assets.</p> <ul style="list-style-type: none"> <li>• Protecting assets of economic and recreational value,</li> </ul>

	<p>including tourism</p> <ul style="list-style-type: none"> <li>• Avoiding blighting mineral assets</li> <li>• Reducing/minimising the use of natural resources in the energy sector</li> <li>• To promote sustainable use and management of existing infrastructure e.g. water, heat, energy or flood protection infrastructure</li> <li>• Avoid an increase in the production of waste peat and other waste and meet the objectives of the Zero Waste Plan</li> <li>• To meet heat demand through maximising the efficiency of heat networks</li> </ul>
Cultural Heritage	<p>To protect and conserve the cultural and built environment and archaeological assets</p> <ul style="list-style-type: none"> <li>• Respecting the pattern and form, and the landscape and historic setting of settlements</li> <li>• Ensure consideration of direct (physical) effects on historic environment assets</li> </ul>
Landscape	<p>To protect the character, quality and diversity of the landscape in the Borders</p> <ul style="list-style-type: none"> <li>• Protecting important views in the Borders</li> <li>• Protecting designated landscapes and other areas with attractive or important landscaping from inappropriate development</li> <li>• Conserve and enhance landscape character and scenic value of the area</li> <li>• Value and protect diversity and local distinctiveness</li> <li>• Ensuring development is appropriately designed to fit with landscape character</li> </ul>

### 3.4 Current state of the environment

3.4.1 A clear understanding of the current state of the environment is necessary to assist the identification of environmental problems, support the process of assessing the environmental effects and provide a baseline against which future monitoring data can be compared. The prime information sources for this are set out in Table 4 and baseline environmental information in full appears in Appendix B of this Report.

Table 4: Environmental Baseline Information

<b>SEA Issue</b>	<b>Key Information</b>	<b>Data Source</b>
Biodiversity, Flora & Fauna	Protected Species	Scottish Natural Heritage (SNH)
	Special Areas of Conservation	SNH
	Sites of Special Scientific Interest	SNH
	Special Protection Areas	SNH (updated 2010)
	National Nature Reserve	Scotland's National Nature Reserves (updated 2015)
	Forestry	Scottish Borders Council Woodland Strategy (2005)
	Wildlife reserves	Scottish Wildlife Trust
	Integrated Habitat Network mapping	SNH
	Green Space	Scottish Borders Greenspace Strategy
	Green Networks	Central Scotland Green Network, SESPlan
Population & Human Health	Population / Life expectancy / health inequalities	General Register Office /NHS, Scottish Borders Community Health Partnership (Area Profiles)
	Access to Transport incl. Core Paths, Pentland Hills Regional Park, and Rights of Way Open Space	Scotways, Regional Transport Strategy, SESTrans, Local Transport Strategy Scottish Borders Open Space Audit, West Lothian Council
	Population Data	Census
Soil	Contaminated Land Brownfield Sites	Contaminated Land Register Scottish Borders Vacant & Derelict Land Survey 2015, Scottish Borders Urban Capacity Study 2009
	Carbon Rich Soils	SNH

	<p>Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and Minimisation of Waste</p> <p>Good Practice During Windfarm Construction</p> <p>Guidance Developments on Peatland: Site Surveys and Best Practice</p> <p>Further reading on SEPA's web page on surplus peat management</p>	<p>SEPA . Scottish Renewables</p> <p>Scottish Renewables, Scottish Natural Heritage, SEPA, the Forestry Commission Scotland and Historic Scotland</p> <p>SEPA</p> <p>SEPA</p>
Water	<p>Flood Maps</p> <p>Wetlands – Ramsar Sites</p> <p>Water Quality</p>	<p>SEPA Indicative River and Coastal Flood Maps</p> <p>SNH</p> <p>River Tweed/Solway Firth River Basin Management Planning, SEPA</p>
Air	<p>Levels of CO<sup>2</sup> emissions</p>	<p>Scottish Borders Council Environmental Health, SEPA Air Quality Reports</p>
Climatic Factors	<p>Renewable Energy Generation</p>	<p>Scottish Borders Council data, Scottish Government Renewable Action Plan</p>
Material Assets	<p>Prime Quality Agricultural Land</p> <p>Waverley Line</p> <p>Minerals Information</p> <p>Hazard Pipelines</p> <p>Existing wind energy development / proposed</p> <p>Waste</p>	<p>Macaulay Land Use Research (1987, amended 1994)</p> <p>Waverley Line Limits and Contribution Area (2004)</p> <p>British Geological Survey</p> <p>Health and Safety Executive Scottish Gas</p> <p>Development Management data base</p> <p>Zero Waste Plan, SEPA</p>
Cultural Heritage	<p>Listed Buildings</p> <p>Schedule of Ancient Monuments</p> <p>Conservation Areas</p> <p>Historic Gardens and Designed Landscapes</p>	<p>Historic Scotland</p> <p>Historic Scotland</p> <p>Local Development Plan</p> <p>Historic Gardens and Designed Landscapes Inventory, List of Regional Designed Landscapes</p>
Landscape	<p>Wind Farm Landscape Constraints</p>	<p>Landscape Capacity and Cumulative Impact Study 2013</p>

	National Scenic Areas	SNH
	Special Landscape Areas	Scottish Borders Council Local Landscape Designations 2011
	Pentland Hills Regional Park	West Lothian Council

### 3.5 Environmental Factors

3.5.1 The LDP 2016 identified a number of key environmental issues which would require to be addressed through appropriate future plans, programmes and strategies.

- Loss of habitat
- Recreation access to greenspace
- Flood Risk
- Rise in pollution near the River Tweed, Eye Water and North Sea and their tributaries
- Higher demand for energy usage
- Impact on open space / mineral deposits around settlements
- Damage to historic settlement pattern
- Impact on landscape around settlements

In addition to these issues, further environmental issues raised through planning applications and pre-application inquiries in relation to wind energy include:

- General Landscape issues
- Cumulative Impact issues
- Impacts on residencies, including amenity, noise and shadow flicker issues
- Impacts on cultural heritage and biodiversity
- Perceived adverse impacts on tourism

3.5.2 Existing environmental issues in respect of the SG relate principally to the retention of the quality of landscape and biodiversity matters. The SG seeks to allow renewable energy proposals where they have no adverse impact on a range of environmental constraints and considerations or that they can be supported where any such impact is considered to be minor or appropriate mitigation measures or enhancement can be carried out.

3.5.3 It is considered that the SG will have few negative effects on many aspects of the environment of the Scottish Borders.

### 3.6 Likely evolution of the environment without the SG on Renewable Energy

3.6.1 Without the Renewable Energy SPG it is considered that the likely future changes to the area would be:

- Sensitive landscapes and habitats not being sufficiently protected
- A policy framework which did not comply with national planning guidance
- Continuing uncertainties and an inconsistent approach as to where wind farms could be supported in the Scottish Borders

## **4.0 ASSESSMENT OF ENVIRONMENTAL EFFECTS AND MEASURES FOR MITIGATION**

### **4.1 Alternatives considered**

4.1.1 The Environmental Assessment (Scotland) Act 2005 requires consideration of reasonable alternatives to the plan within the Environmental Report (Para 14 (2)):

*The report shall identify, describe and evaluate the likely significant effects on the environment of implementing -*

- *the plan or programme; and*
- *reasonable alternatives to the plan or programme, taking into account the objectives and the geographical scope of the plan or programme.*

4.1.2 The requirement for consideration of alternatives is related to the means by which the objectives of the plan can be met by different approaches.

4.1.3 The context for this SG is set by national and local policy. This principally comprises of the Development Plan (consisting of the Strategic Plan and the Local Development Plan) which set out the land use planning context and policies and SPP which sets out the requirements for producing the SG. The requirements for this SG were clearly set out by the Reporter following the Examination of the LDP. The alternatives in this context are therefore limited.

#### *Alternative 1: Maintain the status quo*

- This would result in outdated existing SPG adopted in 2011 which would not address the issues identified in SPP and other new material considerations which require the development of a clearer and updated framework and the identification of a range of issues to be addressed by planning applications.
- Alternative 1 is not considered to be a realistic option.

#### *Alternative 2: Prepare SPG in line with SPP reflecting local environmental concerns*

- SPP does not consider detailed environmental implications at the local level. This is the role of the LDP. Preparing the SPG in line with SPP which also reflects local environmental concerns will result in guidance which enables development in the Scottish Borders which reflects national as well as local considerations. If planning applications are refused by the Council in accordance with the SG, given the SG follows national planning guidance requirements and will be formally part of the development plan following referral to Scottish Ministers, this should strengthen the Council's position in terms of appeal decisions.
- Given the requirements of SPP and the continuing pressure the Scottish Borders is under from wind farm proposals, alternative 2 is therefore considered the only realistic option. Alternative 2 will therefore be the only option assessed in the SEA.

### **4.2 Assessment Methods**

- 4.2.1 In accordance with Schedule 2 of the Environmental Assessment (Scotland) Act 2005, Scottish Borders Council has considered the effects (positive and negative) of the SG on Renewable Energy for the Scottish Borders on a range of SEA perspectives identified at the Scoping Stage.
- 4.2.2 The SEA perspectives form the basis on which the SG is assessed. Policy ED9 and the supplementary guidance to it as well as the spatial framework will be assessed against these SEA perspectives. The process will identify as far as possible what effect each will have on the SEA perspectives.

### **4.3 Assessment Results of Wind Energy SPG**

- 4.3.1 The full assessment results can be found in Appendix C of this report. The likely effects of the SG's different components were assessed from the environmental perspectives. A summary of the effects are set out below:
- 4.3.2 Biodiversity (Flora and Fauna) : Within the Scottish Borders there are a high number of sensitive and protected sites / species / habitats. The SG identifies the wide range of these and seeks to ensure that any renewable energy proposal, of which wind farms are the main threat, will have no adverse impacts on them. The SG makes reference to the issue of cumulative impact issues to be considered where required and lays down measures to consider mitigation measures to be carried out in order to allow support of planning applications. This can include, for example, the reformation / relocation of habitats to the satisfaction of the Council. Due to the opportunities for enhancement the policy and supplementary guidance are considered to have a positive effect of the SEA objective. In terms of the spatial framework it identifies World Heritage sites, Natura 2000 and Ramsar sites, SSSIs and National Nature Reserves as Areas of Significant Protection from wind farms. Applications for wind farms within these areas must demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation. As the spatial framework specifically identifies these for protection it is considered the impact will be positive.
- 4.3.3 Population, Human Health and well being: The promotion of renewable energy is positive in terms of maximising natural resource efficiency and establishing a better use of energy sources and wind energy sites are important centres for education. The SG identifies key factors to be considered in terms of considering impacts on residential amenity and other receptors. There are no perceived adverse policy effects in terms of human health. Any air or noise issues are mitigated by the requirements of Environmental Health in the form of attached planning conditions to any consent issued, and the supplementary guidance gives further advice on noise mitigation measures. The overall impact is considered positive. In terms of the spatial framework it identifies a 2km community separation for consideration of visual impact around cities, towns and villages identified within the LDP. This does not prevent wind farms being built within this distance, but it does require more stringent analysis of turbine proposals. It is considered any impacts will be neutral.
- 4.3.4 Soil: The spatial framework identified within SPP identifies carbon rich soils, deep peat and priority peatland habitat as "Areas of Significant protection". Consequently the SG ensures their protection as well as any mitigation measures when considering proposals for renewable energy developments, particularly wind farms. The policy protection is likely to have a positive impact. In terms of the spatial framework it identifies areas with carbon rich soils, deep peat and priority peatland habitat as Areas of Significant Protection from wind farms. Stage 2 of the spatial strategy identifies the protection of a number of constraints including intermediate bog inventory, lowlands raised bog inventory, hydrology of solid type

(peat), drift geology. It is contented the strategy gives sufficient protection to them which has a positive effect on the objective.

- 4.3.5 Water : Wind farm construction in particular can involve considerable excavation works, alterations to ground levels and the construction of access routes which can involve considerable ground works. The SG seeks to ensure there is no disturbance to water courses, although mitigation measures can be considered when appropriate. The overall impact is considered positive. In terms of the spatial framework it identifies the river Tweed SSSI as an Area of Significant Protection and the framework wishes to ensure that any significant effects on the qualities of the SSSI can be substantially overcome by siting, design or other mitigation. The SG wishes to ensure there are no adverse impacts on water courses and it is considered any impacts will have a neutral effect.
- 4.3.6 Air: The SG identifies the criteria tests and issues which must satisfy Environmental Health requirements regarding noise and odours. This is particularly relevant to the noise of turbine blades and odours from plant and chimneys from, for example, anaerobic digestion systems, biomass and energy from waste. The overall impact is considered positive. In terms of the spatial framework it makes no reference to air.
- 4.3.7 Climatic Factors: The SG seeks to give support to all forms of renewable energy in order to address climate change issues. Consequently the SG has a very positive impact on the SEA objective. In terms of the spatial framework it makes no reference to specific climatic factors.
- 4.3.8 Material Assets : Whilst supporting renewable energy proposals the SG places a strong emphasis on protecting and enhancing opportunities where possible, on matters regarding landscape, heritage, biodiversity, minerals. With regards to wind farms the SG sets out requirements to ensure any perceived impacts on tourism are addressed and mitigation measures considered. The SG confirms the Council's support of the Zero Waste plan and the requirements within it. As part of the application process the SG requires impacts on tourism to be addressed for wind farm proposals. The overall impact is considered positive. In terms of the spatial framework material assets are not referred to.
- 4.3.9 Cultural Heritage : Policy ED9 and the SG give protection to a range of cultural heritage interests. This policy should have a positive impact given the policy protection, and planning applications for renewable energy proposals which may have an adverse impact on cultural heritage may be refused consent. The overall impact is considered positive. In terms of the spatial framework it seeks refers to sites identified in the Inventory of Historic Battlefields and sites identified in the Inventory of Gardens and Designed Landscapes as Areas of Significant Protection and that any relevant proposals will be required to demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation
- 4.3.10 Landscape : Wind Farm proposals in particular can potentially have a significantly detrimental impact on the landscape and the SG gives considerable reference to the importance of protecting the landscape. This balance of supporting renewable energy proposals and protecting the landscape is referred to within SPP and is reflected within the SG. The impact of wind farms on the landscape is a major consideration for the SG and whilst there are requirements to minimise such impacts it is not considered the outcomes can be considered positive. In terms of the spatial framework it identifies National Scenic Areas and National Parks as Areas where Wind Farms will not be Allowed". Although

there are no National Parks within the Scottish Borders there are two NSAs. Consequently these are identified within the spatial framework with full protection against wind farm approvals. Although this is a positive no protection is given so Special Landscape Areas or other non designated landscapes and consequently it is considered the overall impact will be neutral.

Table 6 sets out the summary of the results of the SEA assessment for the Wind Energy SPG for the Scottish Borders. The impacts are defined in table 5.

**Table 5 Impacts**

Positive	Very positive	Negative	Very negative	Neutral	Unknown
+	++	-	--	0	?

**Table 6 Relationship between policy and the spatial strategy and SEA Objectives**

Wind Energy policy theme	Impact on SEA Topic								
	Biodiversity, fauna & flora	Population & human health & well being	Soil	Water	Air	Climatic Factors	Material Assets	Cultural Heritage	Landscape
Policy ED9 and supplementary guidance to it	+	+	+	+	+	±	+	+	0
Spatial Framework	+	0	+	0	0	0	0	+	0

## 5.0 MONITORING

5.1 Any strategy should be monitored for the environmental outcomes, helping to identify the need for future corrective actions and its compliance with the SEA objectives. This can be integrated into the regular Strategy cycle or any Strategy revisions.

- 5.2 The majority of monitoring for the SEA objectives is already undertaken by the Council including enforcement of planning conditions or by other government bodies or agencies. Any new identified data can be incorporated into the monitoring arrangements for the SG. This allows SEA monitoring to be incorporated into the existing performance monitoring. There are a number of overarching policies to policy ED9 which are relevant to a number of key considerations regarding, for example, biodiversity, landscape, built and natural heritage, roads issues, protection of residential amenity, protection of carbon rich soils , air quality, protection of water environment. These policies give protection to the SEA perspectives and require mitigation and enhancement where appropriate.
- 5.3 A Monitoring will shortly be prepared in advance of the new forthcoming LDP. The report will include reference to any issues emerging from monitoring of approved Renewable Energy proposals.
- 5.4 Further annual monitoring is undertaken for the Local Biodiversity Action Plans and Local Habitat Action Plans. This monitoring will also incorporate many of the monitoring needs also identified within this SEA.

## **6.0 NEXT STEPS**

- 6.1 This Environment Report was sent to the Scottish Executive SEA Gateway for dispatch to the statutory consultative bodies on 23<sup>rd</sup> January 2017. The report was posted on the Council's website for a twelve week period of public consultation from 23<sup>rd</sup> January 2017 to 17<sup>th</sup> April 2017 and this was advertised in the press. This period ran concurrently with the formal consultation on the SPG.
- 6.2 A period of analysis and adjustment will follow the close of public consultation so that comments and objections can be assessed, responses sent out and any necessary adjustments made to reflect changes in the SG.
- 6.3 On completion of analyses and adjustments the finalised Environmental Report will be presented together with the Finalised SG at a meeting of elected members of the full Council.
- 6.4 Once adopted, the SG on Renewable Energy will be published on the Council's website. A post adoption statement will be made once the SG has been approved by the Council and confirmed by Scottish Ministers.