

Renewable Energy in the Forest of Bowland AONB: A position statement

1. Introduction

1.1 Under the Climate Change Act of 2008 the Government is committed to delivering an 80% reduction of greenhouse gas emissions by 2050, including a 34% reduction by 2020¹. In order to achieve these reductions a number of actions will need to take place, notably improving energy efficiency and reducing the demand for power. In addition the UK is committed to increasing the percentage of power that it produces from renewable sources to 20% by 2020, and reducing its dependence on fossil fuels. Supporting micro-renewables, i.e. small scale and local power generation, is an important part of this equation.

1.2 The Forest of Bowland Area of Outstanding Natural Beauty (AONB) is a statutory protected landscape, and as such each local authority within the Forest of Bowland AONB has a duty of care to ensure that the landscape is not affected by unsightly development. Current legislation (section 85 of the Countryside and Rights of Way Act 2000) requires that *'in exercising or performing any functions in relation to, or so as to affect land' within the designated landscape an 'authority shall have regard to their statutory purposes'; i.e. to 'conserve and enhance the natural beauty of the area.'*²

1.3 The Government's Planning Policy Statement on renewable energy (PPS22) states that *"planning permission for renewable energy projects should only be granted where it can be demonstrated that the objectives of designation would not be compromised and any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits."*

1.4 The Forest of Bowland AONB, like everywhere else, is affected by climate change, and its impact will increase as greenhouse gas emissions continue to build up in the atmosphere. It is important that the Forest of Bowland AONB plays its part in reducing emissions and this includes the small scale generation of energy from renewable sources.

2. The purpose of this Position Statement

2.1 This document sets out the Forest of Bowland AONB Joint Advisory Committee's position with regard to the siting of renewable energy developments, both within and adjacent to the boundaries of the Forest of Bowland AONB. This guidance is intended to assist in the determination of planning applications submitted to the planning departments of local authorities in the AONB partnership i.e. the districts of Craven, Lancaster, Pendle, Preston, Ribble Valley, and Wyre.

¹ These emissions are based on 1990 levels

² Ref 'England's statutory landscape designations: a practical guide to your duty of regard' ISBN 978-84754-200-7 or Natural England publication catalogue code NE243

2.2 The document is also intended to offer advice to potential developers, and any business, community or resident who is seeking to install micro or small scale renewable systems within the Forest of Bowland AONB.

2.3 The Forest of Bowland AONB is a designated landscape not a planning authority. This role remains with the relevant local authority and it is they who are expected to carry out the duty of care mentioned in paragraph 1.2 and ensure that development within the AONB is in accordance with the requirements of national, regional and local planning policy

2.4 This document should be read in conjunction with:

- a) Forest of Bowland AONB Management Plan.
- b) Forest of Bowland AONB Landscape Character Assessment³.
- c) Landscape Sensitivity to Wind Energy Development in Lancashire
- d) A Landscape Strategy for Lancashire
- e) Landscape and Heritage Supplementary Planning Guidance

2.5 Development and other activities within the Forest of Bowland AONB is guided by a partnership comprising six local authorities (see paragraph 2.1), plus Natural England, other statutory agencies, voluntary groups, communities, businesses and landowners with an interest in the area. The partnership is managed by a Joint Advisory Committee (JAC) which is made up of representatives of these partners and which meets twice a year. A small number of staff are employed to prepare, implement and review the statutory Management Plan, in conjunction with the partnership.

2.6 Within the Forest of Bowland AONB Management Plan, chapter 19 is devoted to 'Responding to Climate Change' with an overall vision: *unpolluted air, soil and water to allow the landscape and wildlife of the AONB to be sustained; reduce CO2 emissions that exceed Government targets; the Forest of Bowland AONB is recognised as a place of best practice in responding to climate change.*⁴

3. General Guidance

3.1 Renewable energy developments can take the form of both heat and power generation:

Electricity can be generated by hydro systems (water), photovoltaics (solar) and by wind turbines.

Heat can be generated via the burning of wood fuel and other biomass products; using anaerobic digestion; solar thermal; and by using underground, water, and air source heat pumps.

3.2 For the purposes of this position statement the following definitions are used:

³ www.forestofbowland.com

⁴ http://www.forestofbowland.com/cons_managementplan

Technology	Micro	Small scale	Medium scale	Large scale
Wind turbines	25m tall or less to blade tip	25-60m to blade tip	60-90m to blade tip	90m+ tall
Wind farm	single	1 -5	6-10 turbines	11+
Hydro power	< 100kW	< 10MW	Over 10MW	Over 10MW
Biomass	household	Household, business or farm based	Over 10MW Electricity not consumed on site	Electricity not consumed on site
Photovoltaics	Household, c 5kW	Household, business or farm based < 10kW	10 - 50kW arrays. Electricity not all consumed on site	Over 50kW Electricity not consumed on site
Anaerobic Digestion	Household or farm based	Cluster of farms, site < 0.5ha	Site over 0.5ha, serving many farms	
Heat Pumps	household	Business or farm based		

3.3 The Forest of Bowland AONB Joint Advisory Committee considers that medium to large scale renewable energy development is not appropriate within the Forest of Bowland AONB (or in locations beyond the boundary where development would affect its setting and character) as it has significant potential to adversely affect the natural beauty of the AONB and to compromise the purpose of the statutory designation.

3.4 However, the Forest of Bowland AONB Joint Advisory Committee considers that micro and small scale renewable energy development may be appropriate within the designated area.

3.5 It is essential that renewable energy is developed in a way that is consistent across local authority boundaries, is in harmony with the landscape and in the interests of those who live and work in it, or visit it for pleasure

3.6 Obviously some of these developments are considered to be more suitable to the Forest of Bowland AONB landscape than others. However, **this position statement is not intended to discourage the development of any form of micro and small scale renewables within the Forest of Bowland AONB.** In all instances, the acceptability of specific renewables development proposals in landscape terms should be demonstrated by developers through detailed investigation, analysis and careful siting, layout and design to ensure that they are done in a sensitive and appropriate manner.

4. Guidance for micro and small scale renewable energy schemes to be sited within the Forest of Bowland AONB

4.1 The Government's Planning Policy Statement on renewable energy (PPS22) states that as part of a national policy framework "*small scale development should be permitted within AONB's provided that there is no serious environmental detriment to the area concerned.*" In addition the PPS confirms that "*planning permission for renewable energy projects should only be granted where it can be demonstrated that the objectives of designation of the area will not be compromised by the development*".

4.2 When reviewing applications for micro and small scale renewable energy installations within the Forest of Bowland AONB: ***our advice is to view any scheme on its own merits.*** Being sited within, or near to, the Forest of Bowland AONB should not be the ***sole*** reason for refusal of micro or small scale renewable energy schemes, unless significant environmental impacts are envisaged.

4.3 This guidance is for micro and small scale schemes only as ***the Forest of Bowland AONB Joint Advisory Committee will object to all plans to develop medium and large scale schemes.***

This guidance is therefore provided for:

- Single micro wind turbines (up to 25m to blade tip) and small scale wind energy development
- Micro hydro schemes (up to 100kW)
- Small scale photovoltaics (up to 10kWp array)
- Small scale biomass (up to 10MW) and AD systems, and small scale heat pumps

4.4 Wind turbines

4.4.1 Where appropriate, micro and small scale wind energy development may be accommodated within the Forest of Bowland AONB landscape. Micro scale wind energy development particularly in locations where there would be a strong functional relationship with existing development such as farm buildings and views of it would be constrained by the topography is likely to be the most appropriate form of wind energy development for the AONB. ***Small scale wind farms may be appropriate for the AONB provided that they do not cause unacceptable harm to the natural beauty and special quality of the landscape.*** In all instances, micro and small scale wind energy development should:

- be of a form and design that is appropriate for the landscape and visual characteristics of the location.
- be an appropriate scale for the location.
- not be sited on a skyline or close to a prominent feature or within the setting of important historic features or landscapes
- not have significant cumulative impacts with other operational or consented wind energy development.

4.4.2 The Forest of Bowland AONB Landscape Character Assessment⁵ and the Landscape Sensitivity to Wind Energy Development in Lancashire study⁶ should be consulted when assessing suitable sites.

4.4.3 Environmental impact assessments will usually be required if the application is for more than two turbines or if height exceeds 15m.

4.5 Micro hydro

4.5.1 The Forest of Bowland AONB has relatively high rainfall, fast flowing streams and rivers and a history of water power. This suggests that there may be some potential for micro hydro (less than 100kW) and smaller scale (up to 3MW) electricity generation within the Forest of Bowland AONB. A feasibility study prepared by Inter Hydro Technology will report in summer 2011 on the most favourable sites.

4.5.2 A micro hydro scheme would be likely to be acceptable in landscape terms where it appears as a minor, isolated feature within a large scale landscape or in locations where there is a direct relationship with existing development such as settlements and access routes.

4.5.3 Buildings and other associated developments should be of an appropriate scale, be carefully sited and be sympathetic to the local vernacular. Where existing historic structures are to be used and/or the site is in a designated Conservation Area, advice should be sought from the local planning authority's building conservation officer. Buildings, access roads, water transporting systems and power lines should be carefully sited.

4.5.4 Whilst mitigation of landscape and visual impacts is encouraged, care should be taken to ensure that screen planting, for example, does not highlight the development in an open landscape.

4.5.5 Environmental impact assessments will be required for schemes generating over 500kW, and consents from the Environment Agency must be obtained in all cases.

4.6 Biomass

4.6.1 Business and domestic scale biomass systems can normally be assimilated into existing buildings and as such may not require planning consent. New buildings housing biomass systems will require planning permission, and should be of an appropriate scale, be carefully sited and constructed in a vernacular style. Where existing historic structures are to be used and/or the site is in a Conservation Area, conservation advice should be sought from the local planning authority's building conservation officer.

⁵ http://www.forestofbowland.com/landscape_character

⁶ <http://www.lancashire.gov.uk/environment/landscape/landscapewind/index.asp>

4.6.2 Systems utilising locally sourced woodfuel can be seen as having a positive impact on the local landscape as they are generating a supply for wood products from positively managed woodlands.

4.6.3 Whilst mitigation of landscape and visual impacts is encouraged care should be taken to ensure that screen planting for example does not highlight the development in an open landscape.

4.6.4 Environmental impact assessments will be required if the site exceeds 0.5 hectares.

4.7 Photovoltaics and Solar Thermal

4.7.1 Small scale photovoltaics (PVs) are now within permitted development for residential buildings.

4.7.2 Small scale installations, usually up to 10kW arrays, on commercial, farm or community buildings that have minor landscape and visual impacts should not normally be objected to within the Forest of Bowland AONB. Careful siting can minimise the visual impact of arrays, and panels can be integrated into the building design, especially on new build properties. Planned installations on historic buildings, or within conservation areas, should seek advice from the local planning authority's building conservation officer.

4.7.3 Solar farms, or large numbers of PV arrays set up at ground level or on large scale farm roof systems, which may or may not move to track the sun, and which normally export electricity generated away from the site, will not normally be suitable for installation within the Forest of Bowland AONB as reflection of the sun's rays is likely to make such installations highly visible, detracting from the natural landscape character of the area.

4.7.3 Solar thermal systems, which heat domestic hot water using flat panes or evacuated tubes mounted on a roof, are usually classed as permitted development. Larger scale schemes heating water for use on site, for example for dairy farms, will normally be considered to be appropriate within the AONB and will not be objected to by the JAC provided they are of an appropriate scale, are not visually intrusive and suitable mitigation of landscape and visual impacts are provided which ensures the natural beauty of the area is not adversely affected.

4.8 Anaerobic Digestion

4.8.1 Anaerobic Digestion (AD) plants, serving a single or small number of farms, may be sited within the Forest of Bowland AONB provided that the development can be incorporated within the farmstead, is of an appropriate scale, is not visually intrusive, is constructed from appropriate materials and suitable mitigation of landscape and visual impacts is provided which ensures the natural beauty of the area is not adversely affected.

3.8.2 It is important that the level of traffic associated with the installation does not markedly increase vehicle movements to and from the site, and that land use in the proximity is not altered to 'feed' the plant with crops such as maize which are not normally cultivated in the area.

4.9 Heat Pumps

4.9.1 Heat pumps, using ground or water, are usually classed as permitted development for a residential dwelling, However air source pumps do currently require planning permission.

4.9.2 If purpose built associated buildings are required, eg to house the pumps, these may require planning permission. These developments should be of an appropriate scale, not be visually intrusive, and be constructed from appropriate materials. Suitable mitigation of landscape and visual impacts must be provided to ensure the natural beauty of the area is not adversely affected, and any such developments would normally be deemed appropriate to the AONB if they are within the area of an existing development, and use traditional materials in the vernacular style.

4.9.3 If extensive excavation is required for a ground source it is important that both historical and biodiversity experts are consulted as to the suitability of the area, and in any case that excavated areas are sensitively restored.

5. Additional advice, contacts and guidance for the siting of renewable energy developments within the Forest of Bowland AONB

5.1 General advice from the Forest of Bowland AONB is to locate developments:

- where they are appropriate to the landscape character type that they are situated within
- where they would not be a dominant feature in the landscape
- well back from upland edges or scarps
- away from viewed skylines, summits, prominent landforms and other distinctive landscape features
- away from remote and wilder areas
- where they make sympathetic use of existing buildings, tracks and other infrastructure
- where there would be no significant cumulative impacts with similar or other developments
- where there are opportunities to mitigate landscape and visual impacts and compensate for any unavoidable losses
- away from key amenity and heritage assets
- where they respect and are sensitive to important cultural associations
- away from public view – i.e. roads, footpaths or public open space – if at all possible

- within existing built areas – e.g. farmstead or settlement – where a strong functional relationship would be established rather than in isolated locations away from other built structures

5.2 The exact physical siting of micro renewable energy technologies on domestic, community, farm or business premises; be it hydro, solar or wind power, will determine its efficiency. For example, solar thermal panels and PVs work best on south facing roofs; whilst wind power will be maximised in more exposed and open sites. However, within the AONB, the distinctive natural beauty, landscape tranquillity, highly scenic views, biodiversity and historical features are all important elements of landscape quality and the impact on these will need to be balanced against maximising the efficiency of an installation.

5.3 Specialist advice and guidance from the Environment Agency, Lancashire County Council, English Heritage⁷ and local authority planning officers should be sought as appropriate. In addition the AONB's own Landscape Character Assessment⁸ should be used to identify the landscape character type/area of the location and its key features/forces for change and to note and act on any limitations listed within the management guidance for that classification.

5.5 A Landscape Impact Assessment may be required for some developments, and a consideration of other potential sites and opportunities for mitigation and compensation will be required as part of any application.

5.6 The Forest of Bowland AONB Manager, and Lancashire County Council's Landscape Unit may be contacted for advice at the addresses below.

5.7 In addition, the following guidance has been adopted by the grants panel of the Forest of Bowland AONB's Sustainable Development Fund. It is suggested that this stance is also adopted by planning authorities when viewing planning applications for small scale renewable energy projects within the AONB.

- Ensure all renewable energy technologies are investigated so that the most appropriate system is installed to meet the needs of the applicant and the specific location. Technologies should also be quality assured by the Microgeneration Certification Scheme⁹ as this ensures quality products and installation, and provides eligibility for the Feed in Tariff and the Renewable Heat Incentive scheme.
- Evidence should be provided to show that energy efficiency of the development has already been maximised – via insulation, energy efficient appliances, and waste minimisation measures

⁷ http://www.climatechangeandyourhome.org.uk/live/what_approvals_saving_energy.aspx

⁸ http://www.forestofbowland.com/landscape_character

⁹ <http://www.microgenerationcertification.org/>

- Monitoring of the installation should be encouraged in order to evaluate its efficiency – e.g. by recording the energy generated and calculating any savings made

5.8 In addition to this position statement the Forest of Bowland AONB will also be including examples of good practice in the siting of photovoltaics and solar thermal roof panels as part of its forthcoming Design Guide.

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