



## Chilterns Conservation Board – Position Statement



### Renewable Energy

## Introduction

1. Global warming and climate change are generally acknowledged as major threats to environmental well-being arising from the production of greenhouse gases, the main one of which is carbon dioxide, produced principally from the burning of fossil fuels. Renewable sources of energy, however, produce no or limited levels of CO<sub>2</sub> and their use can therefore be a major contributor to reducing greenhouse gas emissions.

2. Under the Climate Change Act 2008 the Government is committed to delivering an 80% reduction in greenhouse gas emissions by 2050. This includes a 34% reduction by 2020. 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.

3. The Chilterns Conservation Board recognises that major benefits can arise from seeking greater energy efficiency. This may take the form of reduced need to travel, better insulation of existing buildings and the use of energy efficient appliances and lights. Therefore, **seeking to increase renewable energy generation is not sufficient** and much work needs to be undertaken to **reduce energy demand, conserve energy and use what is generated as efficiently as possible**. Ways of achieving this may include reducing external and highway lighting for example, which may also benefit the AONB through protection of dark skies.

4. The UK is also committed to increasing the percentage of power that it produces from renewable sources to 20% by 2020, and reducing its dependence on fossil fuels. Support for the development of small-scale and local power generation facilities, is therefore an important part of this equation.

5. It is equally important that the Chilterns Area of Outstanding Natural Beauty (AONB) plays its part in reducing emissions and this may be helped by the **small-scale, local generation of energy from renewable sources**. However, any schemes should ensure the conservation and enhancement of the natural beauty of the area.

6. The primary purpose of the AONB designation is to conserve and enhance the natural beauty of the area. This is confirmed by Section 82 of the Countryside and Rights of Way Act 2000 (CRoW Act 2000). Section 85 of the CRoW Act 2000 places a duty on all relevant authorities to have regard to this purpose in exercising or performing any functions in relation to, or so as to affect, land in AONBs. This includes potential developments outside the AONBs that might affect the natural beauty (including visual amenity and tranquility) of the AONB or its setting. In policy terms AONBs have the same planning status as National Parks.

7. The Chilterns Conservation Board is the body set up by Parliament to conserve and enhance the natural beauty of the Chilterns AONB and increase the understanding and enjoyment of the special qualities of the AONB. The Board also has a duty to have regard to the social and economic wellbeing of those who live and work in the Chilterns AONB.

8. The Board also recognises the need for renewable energy projects in order to reduce our collective reliance on fossil fuels for generation. However, not all forms of renewable energy project may be suitable within the AONB or its setting.

9. The **Board encourages the use of renewable energy in appropriate locations within the AONB or its setting, provided it is consistent with conserving and enhancing the landscape and natural beauty of the area.** This policy is contained in the Chilterns AONB Management Plan and is in line with Government and emerging local policies (see relevant local authority local plan or core strategy for more information). However, the purpose of designating an AONB should take priority over other considerations because the contribution that can be made from the AONB to national and regional renewable energy generation targets is small while the harm to what is landscape of national importance enjoyed by many people could be great.

### **Purpose of this Position Statement**

10. **This Position Statement is intended to provide advice and guidance to local planning authorities, landowners, developers and other interested parties in connection with the need to consider the impacts of renewable energy development on the Chilterns AONB and its setting.** In connection with all appropriate developments, account should also be taken of advice in the Board's Position Statement on 'Development affecting the setting of the Chilterns AONB' published in June 2011.

11. This Statement expands upon a number of policies and issues raised in the Chilterns AONB Management Plan 2014-19: A Framework for Action<sup>1</sup>, particularly the following:

**Policy L4: The distinctive character of buildings, rural settlements and their landscape setting should be conserved and enhanced.**

**Policy L5: Developments which detract from the Chilterns' special character should be resisted.**

**Policy L7: The impact of intrusive developments should be removed or mitigated.**

**Policy L8: The quality of the setting of the AONB is conserved by ensuring the impact of adjacent development is sympathetic to the character of the Chilterns.**

**Policy L11: Ensure the cumulative impact of developments and land use changes do not adversely affect landscape quality and character.**

**Policy L13: The management of the landscape to enable it to adapt to climate change and to help mitigate the causes should be promoted.**

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<sup>1</sup> Chilterns AONB Management Plan 2014-19: A Framework for Action, CCB, March 2014

**Policy HE3: Resist changes and management practices which would harm the historic environment and its setting.**

**Policy HE5: Ensure the design and location of development is sympathetic to the character of the historic environment including the setting of heritage assets.**

**Policy D10: A reduction in the damaging impacts of utilities and other infrastructure should be sought.**

**Policy D11: Enhancement of the landscape of the AONB by the removal or mitigation of intrusive developments should be sought.**

**Policy D12: Developments should be sought that represent the highest environmental and design standards whilst complementing the character of the AONB.**

**Policy D14: The special qualities of the Chilterns should be conserved and enhanced by reducing the noise and other detrimental impacts on tranquillity generated by the development and operation of transport networks and services and other infrastructure.**

## **Renewable Energy – Position Statement**

12. The Government published the National Planning Policy Framework (NPPF) in 2012. The NPPF details the Government's planning policies in connection with various issues and states that local planning authorities should actively support energy efficiency improvements to existing buildings (paragraph 95) and should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources (paragraph 97). Local planning authorities should also have a positive strategy to promote energy from renewable and low carbon sources and design policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts (paragraph 97).

13. The NPPF states that 'great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty' (paragraph 115). The NPPF also states that 'planning permission should be refused for major developments in these designated areas except in exceptional circumstances and where it can be demonstrated they are in the public interest' (paragraph 116).

14. The NPPF also includes a cross reference to the National Policy Statement for Renewable Energy Infrastructure (EN-3). This states that in sites with nationally recognised designations, such as AONBs, consent 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, 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’ (paragraph 2.5.33).

15. The policies from the NPPF should influence the production of local plans by the local planning authorities of the Chilterns and the Board will comment on these where necessary.

16. The Board considers, based on past planning applications and enquiries, that the following forms of renewable energy may be proposed within the AONB or its setting and are therefore likely to have impacts on the AONB and its enjoyment:

- Wind turbines and wind farms;
- Biofuel, biomass and anaerobic digestion;
- Solar photovoltaic (domestic scale and solar farms);
- Solar hot water;
- Hydro-electric and
- Ground-, water- and air-source heat pumps.

17. The Board considers that, subject to site specific assessments, the following definitions of scale should be used throughout this Statement for the relevant technologies as they apply to the Chilterns:

<b>Technology</b>	<b>Micro</b>	<b>Small-scale</b>	<b>Medium-scale</b>	<b>Large-scale</b>
<b>Wind turbines</b>	10m tall or less to blade tip	10-25m to blade tip	25-60m to blade tip	60m+ tall
<b>Wind farm</b>	single	1-3 turbines	3-10 turbines	11+ turbines
<b>Wood fuel, biofuel and biomass</b>	Household	Household, business or farm based	Over 10MW, electricity not consumed on site	Electricity not consumed on site
<b>Anaerobic digestion</b>	Household or farm based	Cluster of farms, site less than 0.5ha	Site over 0.5ha, serving many farms	Site over 1.0ha, serving wider area
<b>Photovoltaics</b>	Household, up to 5kW	Household, business or farm based, 5-10kW	10 - 50kW arrays, electricity not all consumed on site	Over 50kW, electricity not consumed on site
<b>Hydro-electric power</b>	Less than 100kW	100-10MW	Over 10MW	Over 10MW
<b>Heat pumps</b>	Household	Business or farm based		

18. The Board considers that medium- to large-scale renewable energy developments will not generally be appropriate within the Chilterns AONB or in locations beyond the AONB boundary where such development would affect its setting and character, as they would have significant potential to adversely affect the natural beauty of the AONB and to compromise the purpose of the AONB contrary to national planning policy.

19. Particular account should be taken of the noise impacts of all technologies, and as part of the assessment of all proposals the impacts of associated traffic should also be subject to assessment (for example lorry movements associated with the delivery of biomass). The Board is likely to engage with larger, complex and more controversial cases, though all cases will be considered and any likely harm assessed accordingly.

20. The Board recognises the positive contribution and general acceptability of carefully located micro- and small-scale schemes. However, the Board considers that, though such renewable energy developments may be appropriate within the AONB and its setting, this must be based on a full account being taken of the likely impacts of such developments through the production of thorough landscape and visual impact assessments and environmental impact assessments as necessary.

21. The different forms of renewable energy development require different infrastructure, which in turn has different landscape and other implications. Whilst the generation of power by renewable means in appropriate circumstances is generally to be supported as a contributor to sustainable development, the conservation and enhancement of nationally important landscapes such as the Chilterns AONB is also important and should not be set aside.

#### Wind turbines and wind farms

22. Much of the AONB is unlikely to be able to accommodate wind turbine developments above 25m due to the topography and land cover of the area and impacts on the wind resource (of woodland for example) and the likelihood of causing real harm to the character and qualities of the AONB. Even with turbines below 25m there is still a risk that in many exposed locations the turbines would not be compatible with the purposes of designation (the conservation and enhancement of the natural beauty of the AONB).

23. To be acceptable within the AONB the Board considers that 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 chosen location; not be sited on a skyline; not be sited close to a prominent feature or within the setting of important heritage assets or historic landscapes; minimise impacts on biodiversity and provide net gains where possible, and not have significant cumulative impacts alongside other operational or consented wind energy proposals.

24. Wind turbines, within or outside the AONB, of a scale intended to supply electricity only to the national grid or to urban areas outside the AONB will generally be objected to unless it can be clearly demonstrated to the satisfaction of the Board

that the proposed installation would not, individually or in conjunction with other existing installations, be to the detriment of the natural beauty, character, amenity and nature conservation interest of the AONB through visual intrusion, noise, activity or associated infrastructure such as overhead lines. The Board recommends that alternative forms of energy generation should be implemented before medium- and large-scale wind turbines and wind farms are considered.

25. In addition, micro- and small-scale turbines may also be considered to be unacceptable, unless they are well located in less exposed locations or naturally screened in some way for example. There may also be issues over cumulative harm if more than one turbine is proposed, even if below 25m in height, as this may change the character of an area, particularly if it is open, undeveloped or tranquil in character.

26. In all cases: exposed scarp top, hillside and hilltop; open vale; open valley and open downland areas are the least likely landscapes where development of this kind could be accommodated without causing significant harm to the AONB.

#### Wood fuel, biofuel and biomass

27. The use of wood to fuel boilers can be a low-carbon or renewable source of energy, but only when there is careful control over the feedstock. There are opportunities in the Chilterns to achieve this, with the additional benefits of providing an economic incentive to bring neglected woodlands back into active management (thus leading to an enhanced nature conservation resource where woodlands are appropriately managed), or by recovering waste wood from the waste stream that would otherwise go to landfill. The Board therefore generally supports the principle of thermal energy production using wood fuel, at micro- or small-scale, when utilising locally-sourced sustainable timber rather than imports (especially wood pellets). Care would be needed in the location of any replacement planting.

28. There may be potential from other grown crops for biofuel production. Such developments are likely to have limited impacts if undertaken on a generally small-scale. However, careful consideration will need to be given for larger-scale use of land for growing such crops. Sensitive sites (for example permanent grassland, common land and other sites of nature conservation importance and historic landscapes) should be avoided. Where new crops are being introduced the potential for detrimental impacts on landscape character should be fully assessed.

29. The transport of wood or crops to any energy production plant will necessitate increased vehicle movements in the area, unless the plant is located adjacent to the source of fuel, although the plants themselves have to be close to the settlements or facilities they serve to avoid unnecessary infrastructure, so an appropriate locational balance must therefore be achieved. For this reason, and to avoid the greater visual and other effects likely to be caused by large-scale plants, the Board would favour no more than small-scale plants rather than medium- or large-scale, centralised installations.

30. New buildings may be needed to process or dry harvested wood and other biomass. The siting, scale, design, colours and materials of any new buildings should always be carefully considered and should adhere to the advice contained in the Chilterns Buildings Design Guide and supplementary technical notes on materials (flint, brick and roofing materials) if appropriate.

#### Anaerobic digestion

31. Anaerobic digestion plants serving a single or small number of local farms may be appropriate within the AONB, provided that the development: can be incorporated within an existing farmstead; uses locally sourced material; is of an appropriate scale; is not visually intrusive; is constructed using appropriate materials and is suitably landscaped to ensure the natural beauty of the area is conserved or enhanced.

32. Care will be needed to ensure that land use in the vicinity of the plant is not altered in order to grow crops such as maize which may not normally be expected to be cultivated in the area. Care will also be needed in connection with the consideration of the effects and potential harm that may arise from visual intrusion, noise, increased activity, odour, associated traffic movements and associated infrastructure such as overhead powerlines and pylons or poles to support them. Large new buildings and structures on greenfield sites within the AONB or its setting, importing large quantities of material from outside the immediate area on a significant scale will not be supported.

#### Solar photovoltaic (domestic scale and solar farms)

33. Solar power can take the form of passive solar gain (orientating buildings and using glazing to maximise heat from the sun), photovoltaic cells (generating electricity) or solar panels (heating water).

34. Generally, solar power installations will be micro- or small-scale, usually serving individual properties, and are likely to have minimal landscape or other impacts if appropriately sited on buildings or land. The Board will therefore generally not object to such installations, and in any case many now benefit from permitted development rights. Concerns may arise in connection with micro- or small-scale schemes in respect of listed buildings or non-designated heritage assets, and in Conservation Areas, where a solar array may be considered to detract from the character and appearance of the building or area. With careful design and siting even these locations may be appropriate for such installations.

35. Subject to the location of panels on the top (and in exceptional circumstances) the side of existing buildings, large well-designed solar arrays are likely to be acceptable. There are many large farm buildings where panels could be placed with little or no negative impact on the landscape of the AONB.

36. If a more substantial free-standing solar array proposal (a solar farm) were to be submitted (above 1 hectare for example<sup>2</sup>) the Board considers that paragraph

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<sup>2</sup> See: Town and Country Planning (Development Management Procedure) (England) Order 2010

116 of the NPPF would apply as this would be considered to be a major development. If such schemes are submitted on the basis of exceptional circumstances then the Board would adopt a criteria based approach following the principles outlined in the NPPF (paragraph 116). It is extremely unlikely that any location could be found within the AONB or its setting where such large solar farms would not have a significant adverse impact on the landscape, sense of remoteness, tranquility, natural beauty and landscape character for which the AONB is valued. The Board considers that such installations would directly conflict with the purpose of designation.

#### Solar hot water

37. The same principles that apply to solar photovoltaic installations at the micro- or small-scale apply to solar hot water installations. These will generally only be provided at a domestic scale and provided that the siting and design are carefully considered they will usually be acceptable, and may also benefit from permitted development rights. Care will also be needed in respect of listed buildings and in Conservation Areas as detailed above.

#### Hydro-electric

38. The Board considers that medium- or large-scale hydro-electric proposals are likely to be limited within the AONB and its setting due to geographical and environmental restrictions. However, micro- or small-scale projects would generally be acceptable. The AONB is bordered in part by the River Thames and it is known that there is interest in promoting hydro-electric schemes. The Board has supported feasibility work on a project at Goring and Streatley through its previous Sustainable Development Fund.

39. To be acceptable, proposals should: ensure that equipment is placed either in existing buildings or new ones of an appropriate scale and design; use the existing head of water from existing impoundments without affecting the river's flow; ensure that fish populations and other river life are not detrimentally affected; not have a detrimental impact on flood risk, distribution of flow between channels at a local site-specific scale (i.e. main channel and mill leat), or on current abstraction licences, and, in the view of the relevant agencies, should operate without prejudicing progress towards achieving ecological objectives under the Water Framework Directive.

#### Ground-, water- and air-source heat pumps

40. Heat pumps, using ground, water or air are generally classed as permitted development for residential dwellings. In most cases proposals are likely to be domestic in scale and due to their relatively limited landscape impact will normally be acceptable. Any reinstatement of land should be carefully and sensitively undertaken and historic landscapes should, wherever possible, be avoided.

41. If buildings are required to house pumps or other equipment then these may require planning permission and should be carefully sited and designed, using appropriate materials.

## General advice

42. The Board advises that renewable energy developments should be located where:

- They are appropriate to the landscape character;
- They would not be a dominant feature in the landscape;
- They are sited well back from scarp tops, hilltop edges, skylines, summits, prominent landforms and other distinctive landscape features;
- They make sympathetic use of existing buildings, tracks and other infrastructure;
- There would be no significant cumulative impacts due to other similar developments;
- There are opportunities to mitigate landscape and visual impacts and compensate for any unavoidable loss;
- They can be suitably landscaped to ensure the natural beauty of the area is conserved or enhanced;
- They contribute to and enhance the natural environment by minimising impacts and providing net gains for biodiversity;
- They are away from key amenity and heritage assets;
- They respect and are sensitive to important cultural associations;
- They are away from public views (roads, footpaths and public open spaces) if at all possible, and
- They are within existing built-up areas (a farmstead or settlement for example) where a strong functional relationship would be established, rather than in isolated locations away from other built structures.

43. Due to the temporary nature of many of the renewable energy technologies listed above, the Board would expect local planning authorities to apply appropriate conditions to planning permissions that seek: the removal of any buildings and any other structures at the end of the life of the proposed installation or when they become obsolete, and the reinstatement of the site to its former condition.

44. Each of the renewable energy technologies detailed above may have drawbacks in their implementation. The Board wishes to work with those promoting such schemes as well as those that decide applications in order to try and overcome any problems in a way which is consistent with the purposes of the AONB.

45. The Board will expect local authorities, in accordance with their duties under Section 85 of the Countryside and Rights of Way Act 2000, to be mindful of both the possible positive and negative impacts of a development, within the AONB and its setting, on the natural beauty and special qualities of the AONB when determining planning applications. When significant impacts are likely the Board would like its views to be sought.

46. Though this Position Statement includes information about all relevant technologies, it is possible that new technologies will emerge in time. Should this

happen the general principles of this Position Statement should apply prior to any revisions being carried out.

## NOTES

The Chilterns Conservation Board has the statutory duty<sup>3</sup> to pursue the following two purposes:

- a) to conserve and enhance the natural beauty of the AONB; and
- b) to increase the understanding and enjoyment of the special qualities of the AONB.

In fulfilling these roles, the Board shall seek to foster the economic and social well-being of people living in the AONB.

This is one of a series of position statements to be published by the Board which help to expand on the Board's policies within the Chilterns AONB Management Plan or explain the Board's approach to new and emerging issues.

Further information and advice is contained in the following: The Chilterns Buildings Design Guide and the associated supplementary technical notes on local building materials, the Environmental Guidelines for the Management of Highways in the Chilterns and The Making of the Chilterns Landscape. All of these can be found on the Board's website.

The Board is comprised of members nominated by the local authorities, elected parish council appointees and individuals appointed by the Secretary of State. The Board, formed in December 2004, is the only organisation that looks after the AONB as a whole.

The Chilterns AONB was designated in 1965 and extended in area in 1990. It occupies 833 square kilometres and is a landscape of equal importance to National Parks such as Snowdonia and the Lake District.

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<sup>3</sup> Section 87, Countryside and Rights of Way Act 2000