

Bat Conservation Trust



Email to : PD-DomesticMicrogen@scotland.gsi.gov.uk

Bat Conservation Trust
The Attic
Scottish Churches House
1 Kirk Street
Dunblane
FK15 9HQ

12 May 2008

Dear Sir/Madam

**Permitted Development Rights for Domestic Microgeneration Equipment
Consultation Paper
Response from the Bat Conservation Trust**

Thank you for the opportunity to comment on the above consultation. I am responding on behalf of the Bat Conservation Trust. Our response can be made available to the public and I am happy to be contacted in future in relation to this consultation process.

BCT is the only organisation concerned solely with the conservation of bats within the UK and Eire, and has a membership of well over 4,000. Government agencies, professional and volunteer bat workers support the work of the BCT. There are also nearly 100 bat groups throughout the UK.

Please note we have also responded to the SEA report. Our response is given in a separate email.

The Bat Conservation Trust has concerns about the impacts of climate change and climate unpredictability on bats and on the wider environment. BCT welcomes measures which will reduce carbon dioxide emissions and which encourage people to be more directly responsible for the energy that they use. However, we request that proper environmental assessments are undertaken for potential impacts on European protected species (bats), particularly prior to installation of turbines, but also prior to installation of solar cells, and suggest that this can take place only if these installations remain within the normal planning system.

BCT has serious reservations about micro-turbines and to a lesser extent to the installation of solar panels, heat pumps and flues becoming permitted development (PD). BCT considers that with all these proposals there is potential for negative impacts on bats either by disturbance to and/or injury to bats, the abandonment of

dependant young bats and/or the obstruction of roost access points or interruption to flight lines.

BCT has some information on bat casualties from micro- turbines (see attached) however this is very limited. We believe further research is needed.

BCT has anecdotal evidence indicating that micro-turbines kill bats in the UK, and research on the European Continent and in the USA has found that full size turbines cause significant numbers of bat deaths. Given the reliance of many bat species on man made structures including houses for their roosting, BCT is concerned about the threat that micro-turbines could pose to bats. We do not know why bats appear to be susceptible to turbines, but it could be that they are attracted to them in some way, or because the echolocation messages coming back to the bat get confused because of the turning blades.

To bring these forms of microgeneration outside the normal checks of the planning system we consider would move the Government away from its overall aim of sustainable development and ultimately result in legislative complications which could be interpreted as the UK Government not complying with the Habitats Directive

Bats are small secretive creatures and can often go un-noticed. Although bats and bat roosts are legally protected this protection can only be effective where professionals and householders are aware of roosts and of their legal obligations.

In order to do this BCT believe that information should be targeted towards the manufacturers and suppliers of microgeneration systems. local authorities and to house- holders. In addition information and training should be targeted at the companies who install these systems so that they are able to identify signs of bats roosts and aware of their legal responsibilities. BCT would be happy to work with the Scottish Government and Scottish Natural Heritage to develop training courses and information packs.

At the present time therefore, pending further investigation into micro-turbines and their impact on bats, BCT would like to see micro-turbines remain within the planning system, in accordance with the precautionary principle and the biodiversity duties.

BCT would be delighted to discuss possible options to facilitate this so that householders with bats are not thwarted in their attempts to generate their own energy. This might be done through a notification scheme or presumption in favour of micro-turbines, or perhaps reduced planning fees and simple (cheap) submission drawings to increase the take-up of micro-turbines.

Please note the attached document on bat mortality. I would stress that this is for micro-turbines only; there is far more evidence of bat mortality caused by full size wind turbines in the USA and on the European Continent where formal research has taken place. No research has yet been undertaken to assess bat mortality caused by micro-turbines in the UK as micro-turbines are a fairly recent phenomenon, but some research is now underway which should inform decisions in the future.

Please find also our response to annexe 5.

BCT would be happy to meet to discuss these concerns in more detail.
If you have any queries about our response, please contact

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1. Details of bat casualties from micro- turbines

Consultation questions

1 – Are there sufficient grounds to further constrain the PD proposals for domestic microgeneration equipment, especially wind turbines, in areas designated for their landscape quality? Please provide justification or evidence for your answer.

Yes - Although BCT are not the body to comment on the impacts of wind turbines on landscape values we do have concerns that turbines in scenic areas may be detrimental to the conservation of bats. There is often a close association in the features that make a landscape attractive to humans and features that make good bat habitat.

The following features in particular are attractive to bats;

- Water (rivers, lochans, streams, canals, ponds,)
- Trees (hedges, avenues, tree-lines, copses, woodland, woodland edge, parkland trees,)
- Historical structures (houses, bridges, ice houses)

Combining several of these features greatly enhances the attractiveness to bats, In short areas designated for their attractive landscape features are also very likely to be attractive to bats.

Positioning wind turbines in areas where bats feed or along routes used by bats as flight lines (e.g. above hedges) may lead to bat casualties or cause bats to avoid these areas thus reducing their ability to fully use their environment (either to feed or to travel to good feeding areas)

Brown Longeared bats in particular are associated with older properties in parkland settings, these bats are not built to fly long distances and a reduction in feeding area, or the necessity to fly further to find food may be an additional stress particularly during the breeding season and pre-hibernation fattening up time.

2 – Are there sufficient grounds to further constrain the PD proposals for domestic microgeneration equipment in areas designated for the protection of flora and fauna? Please provide justification or evidence for your answer.

Yes - Please see our comments above which are also relevant to this question. There are no SSSIs or Special Areas of Conservation for bats in Scotland. However sites designated for other plants or animals may well be attractive to bats. In particular sites with water and mixed woodland are likely to be rich in insects (bat food) and in natural roosting sites (e.g. old trees with holes and splits in them) for bats. Buildings in or near such habitats may well contain bat roosts.

We do not believe permitted development rights should apply to the erection of wind turbines, solar/photovoltaic panels or heat exchange pumps on buildings that contain bat roosts.

3 – Should PD rights for microgeneration equipment, except wind turbines, be granted in areas designated for their built heritage value providing that the principle elevation fronting a highway is unaffected?

No - BCT have concerns that older buildings, particularly those with complex roof structures may contain bat roosts. BCT recommend that survey is carried out before installation of solar panels and or heat pumps to check for bat roosts.

4 – Are the separate controls for listed buildings sufficient to control the installation of microgeneration equipment? If not, what specific provisions are necessary?

BCT can make no comment

5 – Will the setting of listed buildings be adequately protected by not granting PD rights to wind turbines and solar arrays within their curtilage?

BCT can make no comment

6 – Do you think that general conditions on amenity and other impacts could be applied to the PD rights for microgeneration equipment?

BCT can make no comment

7 – Do you agree that the same PD rights should apply to solar water heating and photo-voltaic panels? If not, please say why.

Yes - BCT can think of no reason from our interests of why they should be treated differently.

8 – Do you consider that the proposed PD limits for solar panels on domestic buildings of 150 mm above the plane of a pitched roof or a wall, not higher than the highest point of a pitched roof and covering up to 60% of the roof or wall area are appropriate? If not, what should the limits be and why?

BCT can make no comment on the size of panels but wish to point out that bats may be present under slates, tiles and flashing. Bats will also roost inside cavity walls. Attaching panels to pitched roofs or walls may potentially cause injury to bats and obstruction of roosts (either preventing access into roosts or entombing bats already inside.). Disturbance at maternity roosts may lead to abandonment of young bats that will subsequently starve.

9 – Do you agree that there should be no PD for solar panels on the walls of buildings containing flats?

BCT can make no comment

10 – For flat roofs do you agree or do you have alternatives to the suggestion that PD rights for panels should be set so that they are no closer than 1 metre to the edge of the roof, with the highest point of the panel not more than 1 metre above the plane of the roof and covering up to 60% of its area? If not, please suggest alternative provisions.

BCT can make no comment on the visual impacts of this suggestion. However wish to sound a note of caution; Pipistrelle bats are frequently found in flat roofed buildings (e.g. extensions, garages and buildings from the 1960s) .Bats are usually found around the edges of the roof (but may spread from the edges inwards). There is potential for disturbance and or injury to bats if panels are put in place while bats are present. This should be avoided by identifying the roost and then following advice from SNH.

There is potential for the erection of solar panels to change the temperature in a bat roost but we are unable to predict how significant this might be. Follow up monitoring would be helpful to gather information on this impact.

11 – For free-standing arrays, should PD rights be set at less than 4 metres in height, at least 5 metres from the property boundary and with a maximum area of 9 sq metres?

BCT can make no comment.

12 – Do you agree with the principle of applying a distance criteria for wind turbines to deal with the potentially adverse impacts?

Yes BCT agree with this as a precautionary principle.

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13 – If you agree with question 11 do you think it should be set at 100 metres to the nearest domestic building or can you suggest and give evidence for another figure?

BCT can make no suggestion of an alternative figure

14 – Do you agree with the following limits on the scale of building mounted wind turbines? (each turbine blade up to 1.1 metres in length, up to 3 metres above the highest part of the roof and one per building)

BCT can make no comment on the scale of turbines, since our interest is in the proximity to roosts and to bat flight lines.

15 – Do you agree with the following limits on the scale of free-standing turbines? (each blade up to 1.1 metres in length and a maximum height including tower of 11.1 metres to the tip of the turbine blade, located at least 12 m from the boundary of the property and one per curtilage.)

BCT can make no comment on the distances from boundaries etc., since our interests are in the proximity to roosts and to bat flight lines.

16 – Should the visual impact of free-standing turbine masts be controlled by a condition on the PD rights such as ‘provided the colour of the mast and turbine minimises its visual impact’ or can you suggest an alternative formula?

BCT can make no comment.

17 – Do you agree that flues for biomass stoves should be permitted development up to 1 metre above the highest point of the roof but not on the principal elevation in conservation areas.

BCT can make no comment.

18 – Do you agree that wood stores should be treated in the same way as any other residential alterations or ancillary development, so that depending on circumstances they may be PD.

BCT can make no comment.

19 – Do you agree with the proposal that ground and water source heat pumps, including the collectors and associated trenches or boreholes should be permitted development?

Yes - BCT can not identify negative impacts on bats should this proposal go ahead.

20 – Do you agree that air source heat pumps should be permitted development with the proviso that they should not be located within 100 metres of a separate house or flat?

No - There is potential for wall mounted heat pumps to interfere with bat roosts by blocking or obstructing the access to roosts. This could be avoided by careful siting of the pump to avoid roost access point(s) and give bats a clear flight path from the roost and room for swarming as they return to the roost.

Bats may be disturbed by the noise/vibration made by the pump. However we know very little about the effects of noise/vibration on bats and whether bats acclimatize to this.

(If planning permission is given to install a heat pump on a building containing a roost BCT recommend that follow up monitoring is carried out.)

21 – If you think the distance criteria should be different, please say what you suggest and give the evidence to justify it.

BCT can make no comment.

22 – Do you agree that there are no PD issues for domestic combined heat and power devices except for flues, in which case the PD limit should be 1 metre above the highest point of the roof, and additionally in conservation areas or world heritage sites not on the principal elevation and visible from a road?

Yes - BCT agree that there are no PD issues for domestic combined heat and power devices except for flues. There is potential where a roost exists in a building for bats to be disturbed or the roost damaged as a flue is put in place. (However this could be avoided if survey for bats is carried out before installation and where evidence of a roost is found advice from SNH is followed.)

23 – Do you agree that there should be no additional PD rights for domestic scale hydro-electric generating schemes? If 'no' please see the next question:

Yes, BCT suggest that as a precautionary principle the current status quo is maintained and that each scheme is judged individually. Hydro –schemes have potential for both negative and positive impacts on bats and the circumstances will vary with each proposal.

24 – If you have answered 'no' to the previous question please say in what circumstances and within what criteria you think that domestic scale hydro schemes should be permitted development?

N/A

25 – Do you think that an overall limit should be set for the combined microgeneration capacity which is permitted development, and if so what should it be? Please justify your answer.

BCT can make no comment.

26 – Are the proposals for PD likely to have particular impacts on societal groups?

BCT can make no comment.

Anne Youngman
Scottish Bat Officer
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