

# Guidance



## Natural Heritage assessment of small scale wind energy projects which do not require formal Environmental Impact Assessment (EIA).

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## INTRODUCTION

1. Increased awareness of climate change, shifting economic incentives and a number of Government funded initiatives are leading to an increase in the number of small scale wind energy projects in Scotland. SNH, in line with our existing policy on renewable energy<sup>1</sup>, welcomes the development of small scale renewable energy projects, both by community groups and commercial developers, where they do not have significant adverse impacts on the natural heritage.
2. We also recognise that climate change represents a very significant threat to the natural heritage<sup>2</sup> and that small scale wind energy projects can make a small, but significant local contribution towards tackling this problem. We will therefore endeavour to balance the need to protect our natural heritage today with the need to take action on climate change to protect our natural heritage in future.
3. A range of guidance has already been published which relates to the development of large scale, commercial wind farms, reflecting the fact that the majority of wind energy development in Scotland has thus far been by large scale commercial developers.
4. However, it is acknowledged that developers of smaller projects (including individual turbines), in addition to their advisers and planning authorities, would value guidance on the assessment of the environmental impacts of projects at a smaller scale. It is also acknowledged that, due to the smaller scale of these projects, a proportionate level of assessment is required, particularly due to the costs involved which may affect the viability of some small scale projects. This document therefore sets out SNH's position on the basic levels of environmental assessment likely to be required for projects which do not require formal EIA and which include a maximum of 3 wind turbines.
5. Wind farms of more than 3 turbines are likely to require a more detailed level of assessment than described here. Developers should refer to the wider guidance available on our website and consult both the local SNH office and Local Planning Authority.

## DEFINITIONS

6. This guidance applies to any wind energy development which:
  - does not require a formal Environmental Impact Assessment (the requirements for EIA are discussed further below);
  - requires planning permission under the Town and Country Planning Act (1997);
  - consists of a maximum of 3 wind turbines.

This guidance only applies to those environmental impacts relating to the natural heritage, as described below.

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<sup>1</sup> SNH's Policy on Renewable Energy 01/02 (2001)

<sup>2</sup> for further information see SNH's Policy on Energy and the Natural Heritage 06/02 (2006)

## THE NATURAL HERITAGE IMPACTS OF WIND ENERGY

7. Wind energy projects, at any scale, have the potential to have some impact on the natural heritage. The three key natural heritage impacts considered in this guidance are:

- (1) Landscape
- (2) Birds
- (3) Habitats, species and ecosystems

Any project which meets the criteria described above will require at least a basic assessment of the potential impacts on these interests. Some projects, due to their scale or location may require a more detailed assessment, which will be determined by the Local Planning Authority in consultation with SNH.

## WHEN TO CONSULT SNH

8. We would encourage a Local Planning Authority or the developer of a small scale wind energy project to consult us before submitting a planning application whenever natural heritage issues could be of significant concern. As a guide, we would refer planning staff and developers to our Strategic Locational Guidance<sup>3</sup> and request that:

- we are consulted on any wind turbine proposal within Zone 3, the zone of highest natural heritage sensitivity;
- we are consulted on any wind turbine development if it is within a Site of Special Scientific Interest, Special Protection Area or Special Area of Conservation;
- within zones 1 and 2, we would normally only wish to be consulted on turbines of greater than 50 m<sup>4</sup>;
- we are not consulted on building mounted wind turbines, unless these are in a designated site.

Planners and developers may wish to consult on wind turbines below the 50m threshold where the location of the turbine is likely to create significant adverse impacts on the natural heritage. Consultations should include a basic description of the project, as set out below.

9. A decision tree is provided as **Annex A** to clarify when SNH should / should not be consulted. **Generally we would wish to be consulted by the applicant prior to the submission of a planning application so that we can make the applicant aware of any natural heritage constraints at an early stage.** Our advice at this stage will be copied to the Local Planning Authority.

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<sup>3</sup> Strategic Locational Guidance for onshore wind farms in respect of the natural heritage SNH (2005) available at [www.snh.org.uk](http://www.snh.org.uk)

<sup>4</sup> to blade tip

## NATURE CONSERVATION LEGISLATION AND PROTECTED AREAS

10. Further guidance on nature conservation legislation and protected areas can be found on our website [www.snh.org.uk](http://www.snh.org.uk). Scotland has a number of important pieces of legislation and an extensive network of protected areas designed to protect our natural heritage and prevent the loss of biodiversity. These include responsibilities relating to the protection of European designated sites through the implementation of the EU Habitats and Birds Directives. Information on these, including a map of protected areas, can be found on the Sitelink page of our website<sup>5</sup>, as can more detailed guidance on European Legislation and its interpretation in Scotland.
11. SNH has a statutory duty to advise on development proposals which might have an adverse impact on the protected areas and species which are covered by this legislation.

## IMPACTS ON DESIGNATED SITES

12. A wind turbine proposal **does not have to be in a designated site to have an effect on the habitats or species for which it is designated**. For example, a wind turbine(s) could have an impact on a nearby site by:
  - affecting populations of birds which reside on the designated site but which feed on or fly through the proposed wind turbine location;
  - displacing birds and other species on or near a designated site;
  - creating a barrier between designated sites and wider areas, or by affecting migratory routes;
  - creating disturbance during construction and operation;
  - creating run off into a watercourse, during construction, which may have an impact on a designated site downstream;
  - altering watercourses and drainage which may have an impact on a designated site downstream.
13. Applicants should consider the potential for a proposal to have an impact on any designated site within 20km of the site location, including an SPA, SAC or SSSI. A checklist is provided as **Annex B**. Information on designated sites can be located on the Sitelink<sup>5</sup> page of our website. Guidance on issues relating to connectivity of birds between designated sites and the wider countryside will be published later in 2008.

## SNH'S ROLE IN WIND ENERGY PROJECTS

14. Our role in renewable energy projects is described in our Renewable Energy Service Level Statement<sup>6</sup>. SNH acts as an adviser. Our duty is to advise the local authority and in some cases the Scottish Government on the natural heritage implications of a development proposal. The final decision on a proposal is made by the Local Planning Authority or the Scottish Government.

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<sup>5</sup> available at [www.snh.org.uk/snhi/](http://www.snh.org.uk/snhi/) (includes information on qualifying interests)

<sup>6</sup> available at [www.snh.org.uk/strategy/renewable/sr-re02.asp](http://www.snh.org.uk/strategy/renewable/sr-re02.asp)

## SCOTTISH PLANNING POLICY (SPP) 6

15. Further guidance on renewables planning policy can be found in SPP6 (published in March 2007) available at [www.scotland.gov.uk](http://www.scotland.gov.uk) In the context of small scale proposals SPP6 states that:

*“The level of assessment needed will be directly related to the size and scale of the proposed renewable energy development and its location. The reduction in scale of proposals may lead to the visual and other impacts being significantly lower. Consequently, the information sought by planning authorities from a developer should be tailored to the scale of the proposal and the sensitivity of the location and should generally be less onerous for smaller projects than that required for larger proposals.”* SPP6, paragraph 49

## DOES THE PROJECT REQUIRE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) ?

16. Under the Environmental Impact Assessment (Scotland) Regulations (1999), certain developments require a formal EIA. Guidance on the requirement for EIA can be found in Planning Advice Note 58<sup>7</sup> and Planning Circular 8/2007<sup>8</sup>. **It is the responsibility of the Local Planning Authority to determine if a formal EIA is required.**
17. The Local Planning Authority has a statutory obligation to consider whether or not EIA is required for any wind energy project of more than 2 turbines or for turbines of more than 15m in height. The Local Planning Authority must also consider whether the proposal could have an impact on a ‘sensitive area’<sup>9</sup>. **Wind turbine developers should approach their Local Planning Authority for a formal opinion on whether EIA is required for each individual project at the earliest opportunity.**

Further SNH guidance on the level of assessment required for projects which do require EIA can be found at [www.snh.org.uk](http://www.snh.org.uk).

## GUIDANCE FOR PROJECTS WHICH DO NOT REQUIRE EIA

18. Where a wind energy proposal does not require a formal EIA, some level of assessment of the potential natural heritage impacts is still required. **This guidance therefore sets out the basic level of assessment that SNH would consider to be acceptable for small scale wind energy projects. The level of assessment required will depend on the scale and location of the project.** Where practical, indicative scales have been provided. **Associated infrastructure (e.g. access tracks, grid connection) should be considered as part of the assessments described below.**

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<sup>7</sup> Planning Advice Note 58, Scottish Executive, 1999, available at [www.scotland.gov.uk](http://www.scotland.gov.uk)

<sup>8</sup> Planning Circular 8/2007, Scottish Government, 2007, available at [www.scotland.gov.uk](http://www.scotland.gov.uk)

<sup>9</sup> as described in PAN 58 and Circular 8 2007

## **(1) Conducting a basic landscape appraisal**

19. Wind turbines, if poorly located or of the wrong scale and design, can have a significant impact on landscape and visual interests. Therefore in many cases we encourage applicants to provide visual analysis information in order to provide decision makers with an understanding of the nature of likely landscape and visual effects. However, we acknowledge that, due to the scale of these projects, and the costs of conducting a detailed Landscape and Visual Impact Assessment (which would be expected of a larger windfarm project), a simplified form of assessment is more suitable.
20. We recommend three indicative levels of assessment for wind turbines of different sizes. Each of these levels of assessment applies to a **maximum** of 3 turbines. Requirements may vary depending on location and the sensitivity of the landscape issues in question<sup>10</sup>.
21. **The level of assessment required may vary depending on the location of the turbine(s). It is not practical to provide definitive guidance based on turbine size - the location of the turbine(s) is critical to the level of assessment required.** Wind turbines located near to or in National Scenic Areas or Areas of Great Landscape Value will require careful assessment and are likely, therefore, to require more rigorous assessment as described in (iii) below.
22. In addition, the majority of projects will require grid connection and may require wider infrastructure (such as substations, access tracks and anemometers). The impact of this infrastructure must be considered as part of the assessment as described below, and where significant (e.g. substantial overground cabling), may require more detailed assessment.
23. The indicative levels of assessment are (heights to blade tip):

### **(i) Turbines of less than 15m in height**

For small turbines of less than 15m and out with national designated landscape areas a formal visual impact assessment is less likely to be required. However, detailed information on the location and design of the proposal should be provided to the Local Planning Authority. It is a matter for the Local Planning Authority to determine whether any additional supporting information for the planning application is necessary. Zone of Theoretical Visibility studies, photomontages and/or wireline drawings may be helpful in certain locations. We would not normally wish to be consulted on applications at this scale.

### **(ii) Turbines of between 15m and 50m height**

A basic level of Landscape and Visual Impact Assessment is likely to be required. This should include, as a minimum, a Zone of Theoretical Visibility map covering an area up to 15km (radius) from the turbine and wireline drawings and/ or photomontages from a limited number of key viewpoints. Where the turbine(s) are located in a National Scenic Area the Local Planning Authority

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<sup>10</sup> Further guidance on LVIA is available in the 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA) which is jointly published by the Institute for Environmental Assessment and the Landscape Institute (2002) and 'Visual Representation of Windfarms – Good practice guidance' (2006) published by Scottish Natural Heritage (available from SNH publications 01738 444177)

should consult SNH on the level of assessment required for a specific proposal. We would not normally wish to be consulted on applications at this scale in zones 1 and 2 of our Strategic Locational Guidance.

**(iii) Turbines over 50m in height**

A more detailed Landscape and Visual Impact Assessment is likely to be required, depending on location. For turbines of this scale, we would normally wish to be consulted by the Planning Authority on the scope of the assessment. At this scale of development, the LVIA would be likely to, as a minimum, require:

- a. a ZTV map out to 30km;
- b. visualisations and photomontages, focusing on key viewpoints. The number and location of viewpoints should be proportional to the scale of the development and the sensitivity of the location and should be agreed with the Local Planning Authority;
- c. an assessment of the sensitivity of the landscape, magnitude of change and residual impacts;
- d. a baseplan map of all wind turbine proposals in the public domain to 60km;
- e. A focussed assessment of all applied, consented or constructed proposals within 30km of the application proposal. Further guidance on such cumulative landscape and visual impact assessment is to be found in appendix 5 of SNH guidance note “Cumulative Effects of Windfarms”<sup>11</sup>.

**(2) Conducting a basic assessment of the impact on birds**

24. Any scale of wind turbine, if poorly located, has the potential to have a negative impact on bird populations. As many species of birds and their habitats are protected by European Law<sup>12</sup>, as well as domestic legislation, it is important that potential impacts are adequately assessed. In addition, wind turbines can have cumulative effects on wider populations of birds in the countryside and these impacts, in certain locations, may also require assessment<sup>13</sup>.
25. We acknowledge that small scale turbines and small wind farm developments (of up to 3 turbines) on their own are probably less likely to have a significant impact on birds and their habitats. However, even a domestic scale wind turbine has the potential for significant impacts if located on, or near to a designated area. Cumulative impacts may also be significant.
26. Due to the complexity of the impacts that a turbine might have and the different foraging ranges, behaviour patterns and sensitivity of bird species, it is not possible to identify a ‘standard’ methodology for assessing smaller scale wind farm / turbine proposals. **Instead, a thorough process of scoping is required to ensure that potential impacts are suitably assessed by an agreed methodology.**

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<sup>11</sup> ‘Cumulative effect of windfarms’ SNH Guidance Note (2005)

<sup>12</sup> For more guidance on the EU Birds Directive and EU Habitats Directive see [www.snh.org.uk/about/directives/ab-dir01.asp](http://www.snh.org.uk/about/directives/ab-dir01.asp)

<sup>13</sup> For further guidance see ‘Assessing significance of impacts from onshore windfarms on birds outwith designated areas’ SNH, July 2006, available at [www.snh.org.uk](http://www.snh.org.uk)

27. The scoping process involves dialogue between the developer, their consultants and SNH to identify a suitable assessment methodology. **However, the onus is on the developer and their consultants to consult relevant information, conduct a preliminary assessment of the risks to birds and to develop a proposed methodology, based on our existing guidance on methods for assessing impacts on birds<sup>14</sup>. We will advise on the methodology proposed, but cannot be expected to undertake detailed assessment of the potential impacts at this initial stage – responsibility for this lies with the developer.** In some cases, where the proposal may impact on a European designated site an ‘appropriate assessment’<sup>15</sup> may be required.
28. An assessment may also be required of the impact on birds listed on Annex 1 to the Birds Directive, regularly occurring migratory species, and birds on Schedule 1 of the Wildlife & Countryside Act. These birds may not be linked to a particular designated site, but are still protected under European and domestic law. Further guidance on assessing these impacts can be found on the SNH website<sup>16</sup>. SNH staff can direct developers and their consultants towards appropriate sources of local information on these species.
29. When entering into discussions on the development of small scale proposals we will, in line with our existing Renewable Energy Service Level Statement:
- make information available on any designated areas and / or sensitive bird populations near to the proposal;
  - highlight known significant concerns at an early stage;
  - agree with developers and their consultants a suitable and proportionate methodology to assess potential impacts on birds, taking into account the scale of the proposal and its location and based on proposals brought forward.
30. In order to achieve this we will require:
- an accurate location map showing the turbine location(s) and any ancillary developments (e.g. power lines and transformers / control buildings);
  - a map showing the location of all nearby wind turbines (existing and proposed) within 10km;
  - a description of the turbine size, including hub height and blade dimensions.
31. In some cases a desk study will be sufficient to ascertain whether any significant impacts are likely to arise. However, in certain locations, developers may be required to conduct extensive survey and assessment work to demonstrate that the proposal will not have an adverse impact.
32. **As a result, and following the guidelines in annex A, we would encourage consultation at the earliest possible stage in the development process, to ensure that developers are aware of these requirements as soon as possible. Where a proposal lies outwith Zone 3 of our strategic locational guidance, is for a turbine of less than 50m and is unlikely to have an impact on a**

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<sup>14</sup> [http://www.snh.org.uk/pdfs/strategy/renewable/bird\\_survey.pdf](http://www.snh.org.uk/pdfs/strategy/renewable/bird_survey.pdf)

<sup>15</sup> For further guidance on appropriate assessment see [www.snh.org.uk/about/directives/ab-dir18.asp](http://www.snh.org.uk/about/directives/ab-dir18.asp)

<sup>16</sup> <http://www.snh.org.uk/strategy/renewable/sr-we00a4.asp>

designated site or protected species (see guidance in annex B) we do not require to be consulted on ornithological interests.

### **(3) Conducting a basic assessment of the potential impacts on habitats and protected species**

33. Small scale developments are less likely to have a significant impact on the surrounding habitat and any species found on the site. **However, a basic assessment of the site location is required to ensure that any protected species and sensitive habitats are safeguarded. This is particularly important when the development is located within or adjacent to a Site of Special Scientific Interest (SSSI), European designated site (e.g. a Special Area of Conservation) where an appropriate assessment<sup>17</sup> of potential impacts might be required, or where European Protected Species<sup>12</sup> are present.**
34. For projects which do not require EIA, a basic assessment would require:
- a site visit by a trained ecologist;
  - a brief description of the site, its context and the habitat, flora and fauna present;
  - identification of the presence of any protected species and identification of any required mitigation;
35. **Where a proposal lies outwith Zone 3 of our strategic locational guidance and is for a turbine of less than 50m, we do not require to be consulted on the potential impact on habitats and species. However, a local authority may choose to do so where local nature conservation designations or the presence of European Protected Species could give cause for concern.**

## **BALANCING DUTY**

36. SNH has a duty to balance the need to protect the natural heritage with wider social, economic and environmental needs. **Where possible we will endeavour to balance conservation objectives with the wider benefits of renewable energy, including carbon emissions reductions and any local socio economic benefits. However, we will be constrained in some cases by statutory requirements to protect designated sites, particularly those where Natura legislation applies.**

## **CUMULATIVE IMPACT ASSESSMENT**

37. Wherever multiple proposals occur in a regional area, single wind turbines and small scale wind farms have the potential to have a cumulative impact on landscape, visual, bird and wider species and habitat interests. The assessment methodologies described above reflect the fact that we must consider these cumulative impacts and

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<sup>17</sup> For further guidance on appropriate assessment and European Protected Species see [www.snh.org.uk/about/directives/ab-dir18.asp](http://www.snh.org.uk/about/directives/ab-dir18.asp)

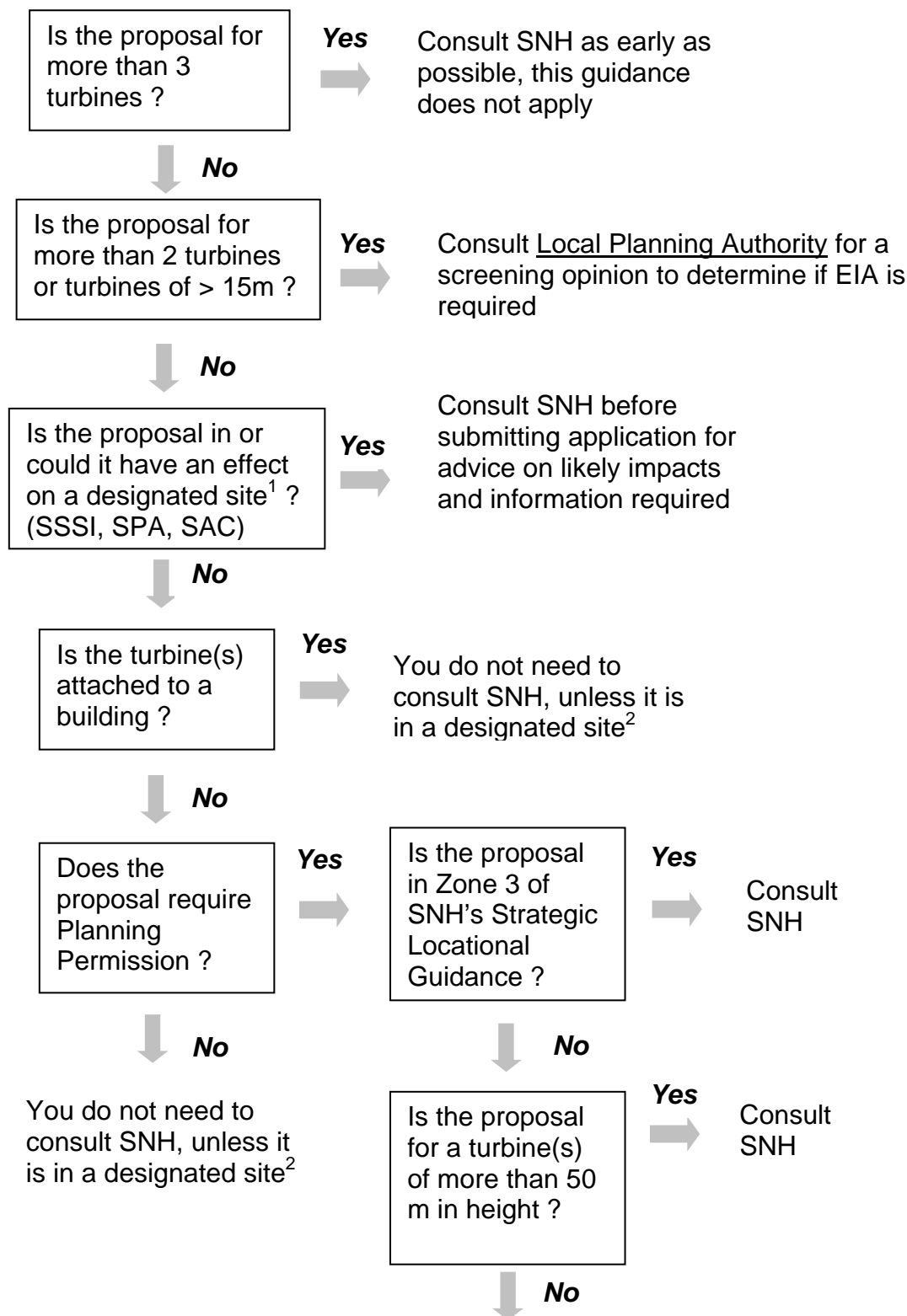
take these into account when reaching a view on each proposal. Further guidance on assessing the cumulative impacts can be found on the renewables section of our website.

38. **In certain areas, where there are either multiple small scale wind turbine proposals, or where there are a number of larger scale, commercial wind farm proposals or existing and consented wind farms, SNH is likely to require a more detailed level of assessment than those described above.**

## **SOURCES OF FURTHER INFORMATION AND ADVICE**

For further information on this guidance contact **Brendan Turvey**, Scottish Natural Heritage, Policy and Advice, 01738 458622, [brendan.turvey@snh.gov.uk](mailto:brendan.turvey@snh.gov.uk)

## ANNEX A: WHEN TO CONSULT SNH ABOUT A SMALL SCALE WIND ENERGY PROPOSAL



**Notes**

<sup>1</sup> For further guidance see paragraphs 12-13 and annex B  
<sup>2</sup> SSSI, SPA, SAC

You do not need to consult SNH, but may do so where natural heritage concerns arise as identified in this guidance note, or where cumulative impacts are a concern

## ANNEX B: ASSESSING THE POTENTIAL FOR A SMALL SCALE WIND TURBINE PROPOSAL TO HAVE AN IMPACT ON NEARBY DESIGNATED SITES

Due to the fact that some bird species can travel considerable distances from a designated site, applicants should identify all designated sites within 20km from the proposal and apply the tests identified below.

If the answer is 'yes' to any of these questions you should consult SNH. Guidance on assessing the impact is given in *italics*.

Test	Yes	No
Could the proposal affect or displace bird populations in a nearby designated site ? <i>(Check whether species for which the site is designated fly through or feed on the site and check the area of habitat which will be affected by the proposal. For further guidance on species which are sensitive to wind turbine development see 'Assessing significance of impacts from onshore windfarms on birds outwith Designated areas' SNH, July 2006)</i>		
Could the proposal form a barrier between designated sites or on a migratory route ? <i>(Check local ornithological records / sources of advice to determine if birds cross the site regularly)</i>		
Could the construction and operation of the proposal have an impact on a designated site ? <i>(Check the distance to the designated site and assess impacts from noise (e.g. drilling, plant operation) and construction access)</i>		
Could run off during construction have an impact on a designated site downstream ? <i>(Check if any watercourses downstream are designated and assess potential for runoff during construction e.g. from foundation construction, vehicle access)</i>		
Could the alteration of drainage and / or watercourses have an impact on a designated site downstream ? <i>(If there is a designated site downstream check the drainage of the proposed turbine location(s) and assess whether it may altered by construction)</i>		