**The Highland Council**

**Planning, Development and Infrastructure Committee**

**18 February 2015**

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| Agenda Item | 13 |
| Report No | PDI 10/15 |

**Onshore Wind Energy Supplementary Guidance – Review**

**Report by Director of Development and Infrastructure**


**Summary**

This report presents the Onshore Wind Consultation Paper (Onshore Wind CP) which marks the latest stage in reviewing the Council's Onshore Wind Energy Supplementary Guidance. The draft document presents initial issues and ideas for amending the guidance and outlines the suggested next stages of the review. It is presented to Committee for approval for consultation.

This follows our report to PDI Committee on 20 August 2014 on the content of Scottish Government's finalised NPF3 and SPP (and associated finalisation of the Wild Land Areas map), and our report to C&S Area Committee on 23 September 2014 on the finalised Cumulative Landscape and Visual Assessment (CLVA) for Caithness.


## 1. Background

1.1 The Council's current framework, for determining planning applications for onshore wind energy development, is set out within the Onshore Wind Energy Interim Supplementary Guidance (March 2012), and the Small Scale Wind Turbine Proposals Interim Supplementary Guidance (November 2012). Through the process of consolidating and updating these documents into a new Onshore Wind Energy Supplementary Guidance (Onshore Wind Energy SG) we need to:

- bring the guidance in line with NPF3 and SPP 2014, as far as we can, in advance of the review of the Highland-wide Local Development Plan (HwLDP) (on which work has begun but will take some time to complete, as advised in the report presented at item 12);
- take into account work we have undertaken on cumulative landscape, visual assessment, and the up-to-date position on wind energy development in the Highlands (and immediately neighbouring areas);
- reflect on, and take account of, experience using the current guidance, particularly feedback from the Council's Development Management Team; and
- provide clarity on whether any parts of the Highland Renewable Energy

Strategy will remain relevant to onshore wind energy proposals.

1.2 In reviewing the Supplementary Guidance we are also having regard to "Onshore Wind – Some questions answered", which was published by Scottish Government in December 2014, and provides advice on the implementation of SPP. Officers also attended the SNH Sharing Good Practice event "Spatial Planning for Onshore Wind Energy", which was held on 2 and 27 October 2014. Advice and information shared by Scottish Government and SNH at this event has been considered.

1.3 In accordance with PDI Committee's decision, alongside the statutory consultation on the Caithness and Sutherland Local Development Plan Main Issues Report, officers have undertaken a local consultation on wind energy issues. This provided the public with information about the work we are doing to review our policies and guidance for onshore wind energy, including information about the Caithness CLVA, and provided an opportunity for people to give us their ideas. Responses received (copies of which are available in the Member's Library, and online at http://www.highland.gov.uk/info/178/local_and_statutory_development_plans/147/onshore_wind_energy_supplementary_guidance) have helped to inform the scope, range of issues, and options set out in the Onshore Wind CP, and will need to be considered further as part of the next stages of the review.

1.4 The Onshore Wind CP (Appendix 2) sets out the issues and options for addressing these matters, and the steps towards reviewing the policy framework for sustainable development of onshore wind energy across the Highlands. It contains a series of associated consultation questions.

## 2. Scope and Content of the Onshore Wind CP

2.1 One of the most important elements of the revised guidance will be an updated spatial framework in accordance with the new approach set out in Table 1 of SPP (which is appended to the draft consultation paper in **Appendix 2**). An initial draft is therefore included in the Onshore Wind CP. The spatial framework identifies those areas that are likely to be most appropriate for onshore wind farms as a guide for developers and communities. SPP says that development proposals should take account of the spatial framework. SPP also says that we should indicate the minimum scale of onshore wind development that our spatial framework is intended to apply to. Members will note that within Section 2 of the Onshore Wind CP, under Issue 1, it is suggested that the spatial framework apply to developments of two or more turbines of 30m or over to blade tip, or any single turbine 50m or over to blade tip. As previously reported to Committee, SPP now requires that we do not add additional constraints into the spatial framework e.g. Special Landscape Areas, although we can still produce policy criteria and guidance to assist consideration of those matters.

2.2 As Members may be aware, SPP has added in to the spatial framework some new, or recently mapped, considerations. Of particular note are:

- the “Areas of Wild Land” (mapping published by SNH last year alongside SPP), which are included in the initial draft spatial framework mapping in the Onshore Wind CP. Members will recall that SNH are preparing descriptions of the areas, and revised guidance on assessing effects of development proposals on wild land and wildness. Council officers have been involved in discussions with SNH about these two important pieces of work, and we understand that SNH anticipates publishing drafts of both for public consultation in April this year; and
- the “Carbon Rich Soils, Deep Peat and Priority Peatland Habitat” (CPP draft mapping – see **Appendix 1** – published for consultation by SNH on 15 January with a deadline for comments of 13 March 2015). The consultation on the CPP draft mapping is suggesting the inclusion of Classes 1 and 2 areas (pink and yellow) in the Spatial Framework. Without prejudice to any response we provide to the SNH consultation, for the initial draft spatial framework mapping in the Onshore Wind CP, we have included Classes 1 and 2 areas.

2.3 As well as updating and revising the spatial framework, in accordance with SPP, we are reviewing the criteria that will be considered in deciding all applications for wind farms of different scales, including extensions and re-powering, taking account of a range of considerations.

2.4 The Interim SG (March 2012) indicates the intention that further technical guidance will be provided on noise matters. This is now included in Section 6 of the Onshore Wind CP, to sit alongside the guidance in Section 7.

2.5 SPP also says we should identify where there is strategic capacity for wind farms and areas with the greatest potential for wind development. We outline in the consultation paper how we intend to do this. This stage will provide an opportunity to take into account concerns about cumulative impact and local constraints, including reflecting on the landscape and visual work we have undertaken.

## 3. Met Masts

3.1 Prospective windfarm developers often use met masts to gather location-specific meteorological information, in advance of determining whether a wind farm may be viable. The information provided allows prospective developers to determine the suitability of the location in terms of wind resource and, if it is decided to move forward with a wind farm application, to inform the specific layout and design of the wind farm. Some Members have expressed concerns that when considering planning applications for met masts, the planning authority is unable to take into consideration people’s concerns about the wind farm proposal that may follow, and that more information should be available about the wind farm proposal at an early stage. This issue does not have implications for the Onshore Wind CP, but the following may be noted by

Members for information.

3.2 Planning permission is required for a proposed met mast, and the application submitted must be assessed against the development plan, and those material planning considerations relevant to the met mast must also be taken into account. Approval of a met mast does not automatically mean that a wind farm application will follow. If the wind resource is deemed insufficient, or for other reasons, a wind farm application may not be submitted. As the details of any wind farm proposal are unlikely to be known at the date of determination of the met mast application (for the reasons given above), it is not appropriate to speculate on future development at this stage. Approval of a met mast is not an indication that a subsequent wind farm proposal is considered to be acceptable. The details of any wind farm proposal subsequently brought forward will be subject to consultation, public participation, and rigorous assessment before being determined.

## 4. Next Steps

4.1 The next steps proposed are as follows:

- subject to Committee's agreement, public consultation on the appended paper (seeking views on our initial ideas for revision of the guidance) would be carried out within the period March – May 2015;
- meanwhile:
  - SNH consulting on CPP map; and also preparing and consulting on descriptions of Wild Land Areas and guidance for assessing impacts of development proposals; and
  - council officers to respond to the SNH consultations, continue to draft up potential background material and content for the guidance, continue associated environmental assessments and progress the early stages of the HwLDP review;
- council officers to assess the responses to the consultation on the Onshore Wind CP, and take into account when preparing a formal draft Onshore Wind Energy SG, May – July 2015;
- Draft Onshore Wind Energy SG to be considered by Committee in August 2015, then public consultation later this year (possibly alongside consultation on the Main Issues Report for the review of HwLDP); and
- subsequent consideration of responses before the Council decides how to finalise the revised guidance.

4.2 In agreeing the appended paper for consultation, Committee is also asked to agree for officers to make minor presentational and typographical changes considered necessary prior to publication. Any such changes will be made in consultation with the Chair of this Committee.

4.3 Members will recall that Committee previously agreed that a Member workshop would be held in advance of the draft Supplementary Guidance

being considered by Committee. We intend to hold this workshop during the consultation on the Onshore Wind CP, prior to the formal draft Onshore Wind Energy SG being prepared for, and considered by, Committee in August.

## 5. Implications

5.1 Resource

We have resources to undertake the revision of the Interim Supplementary Guidance, including consultation and progression to adoption. In planning how to undertake the review, particularly the matters covered in paragraph 2.5 above, we are taking into account resource pressures.

5.2 Legal

Planning law sets out requirements for development plans and development management. A distinction is made between documents forming part of the development plan (our adopted Local Development Plans, adopted Local Plans as continued in force and adopted Supplementary Guidance) and any other material considerations. LDPs and SG are prepared in accordance with legal requirements.

5.3 Equalities

Our Interim Supplementary Guidance has previously been subject to Equalities Screening.

5.4 Climate Change/Carbon Clever

The Supplementary Guidance will assist in the identification of opportunities for renewable energy development, which will contribute towards Carbon Clever and in responding to Climate Change. It will help in the consideration and balancing of positive and negative effects of development proposals. A Strategic Environmental Assessment Environmental Report has been consulted upon for the Interim Supplementary Guidance, and we will take that work forward and also undertake Habitats Regulations Appraisal.

5.5 Risk

Each planning application must be considered on its own merits, and there would be a risk of challenge if any part of the Council's policy and guidance framework were used as a 'traffic-light' style indication of the acceptability, or otherwise, of particular developments without reference to the development plan as a whole and material considerations.

5.6 Gaelic

We will ensure that the appended consultation paper, and the eventual full draft revised Supplementary Guidance, complies with the Council's requirements for publications.

5.7 Rural

The Supplementary Guidance will cover the whole of the Highlands. The main pressures for wind energy development are in rural areas. The Supplementary Guidance will assist in the identification of opportunities for renewable energy development and assist in the consideration of planning impacts.

**Recommendation**

The Committee is invited to:

- agree the Onshore Wind Consultation Paper in Appendix 2 for public consultation, and for officers to make any presentational and typographical changes considered necessary in consultation with the Chair prior to publication; and
- agree the next steps outlined in section 4 of the report.

Designation: Director of Development and Infrastructure

Date: 4 February 2015

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Background Papers:

On the Council's website www.highland.gov.uk :

- Onshore Wind Energy Interim Supplementary Guidance (March 2012)
- Small Scale Wind Turbine Proposals Interim Supplementary Guidance (November 2012)
- Cumulative Landscape and Visual Assessment (CLVA) for Caithness (2014)
- Responses received to our 'pre-consultation' on wind energy issues (carried out alongside the CaSPlan MIR consultation) (2014-15)

On the Scottish Government's website www.scotland.gov.uk :

- National Planning Framework 3 (June 2014)
- Scottish Planning Policy (June 2014)
- Onshore Wind – Some questions answered (December 2014)

On Scottish Natural Heritage's website www.snh.gov.uk :

- Wild Land Areas Map (June 2014)
- Carbon Rich Soils, Deep Peat and Priority Peatland Habitat (CPP) Draft Map for Consultation (January 2015)

## APPENDIX 1:
## CARBON RICH SOIL, DEEP PEAT AND PRIORITY PEATLAND HABITATS (CPP) CONSULTATION: EXTRACT MAP AND ASSOCIATED TABLE (SNH, 2015)

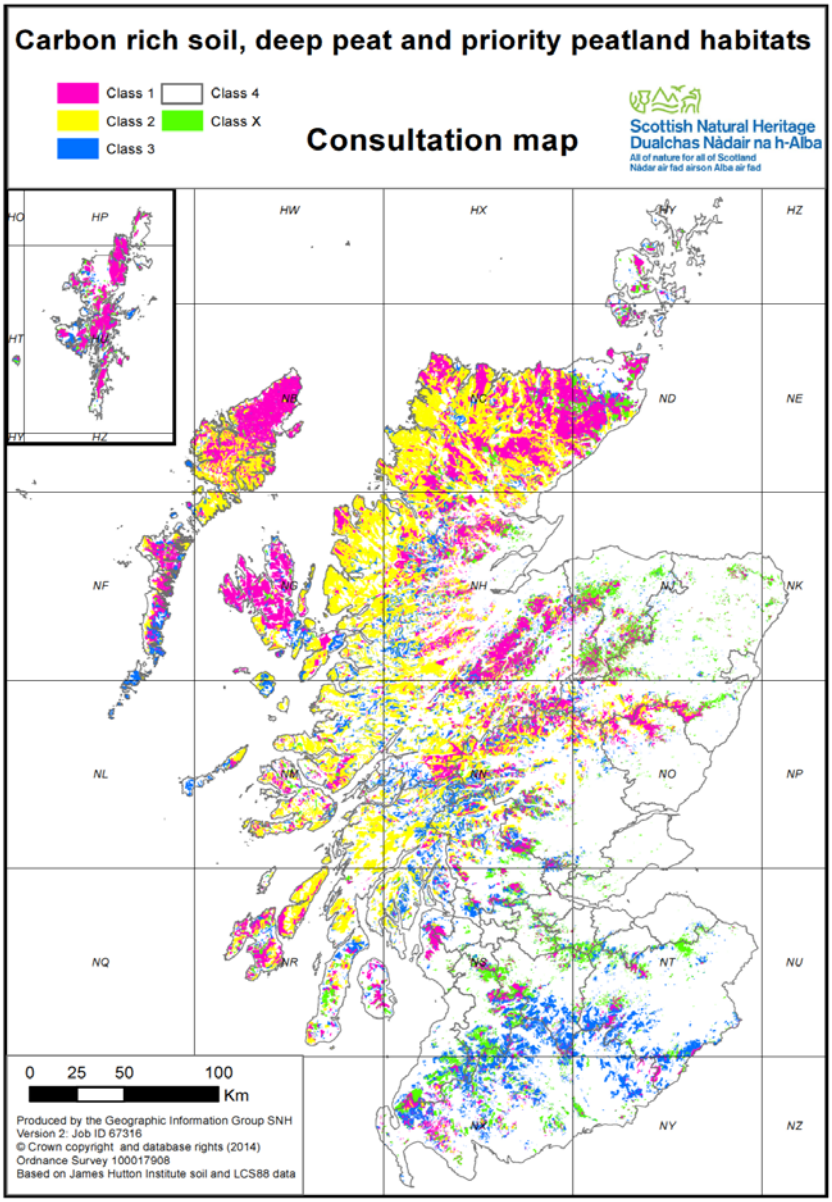



**Table 5** Carbon and Peatland classes and importance of environmental interests

| Class | Importance of environmental interests |
|---|---|
| Class 1 | • Nationally important carbon-rich soils, deep peat and priority peatland habitats<br>• Areas likely to be of high conservation value |
| Class 2 | • Nationally important carbon-rich soils, deep peat and priority peatland habitats<br>• Areas of potentially high conservation value and restoration potential |
| Class 3 | • Other soil conservation and management interests may apply |
| Class 4 | • Not peatland or carbon-rich soil, but other soil conservation and management interests issues may apply |
| Class X | • Area not currently supporting peatland habitats, but where the presence of deep peat may be indicative of restoration potential |

**APPENDIX 2:**
**DRAFT CONSULTATION PAPER**



# Consultation Paper:
# SPATIAL PLANNING FOR ONSHORE WIND ENERGY IN HIGHLAND

## Background

1. The current policy framework for determining wind energy development proposals in Highland is set out in the Interim Onshore Wind Energy Supplementary Guidance (Interim SG) and the Interim Small-scale Wind Turbine Proposals Supplementary Guidance, alongside the Highland-wide Local Development Plan (HwLDP).

2. However, a series of recent changes to national policy introduced by National Planning Framework 3 (NPF3) and Scottish Planning Policy 2014 (SPP) mean there is a need to review existing policies and guidance to ensure they are up to date, fit for purpose and align with national policy.

3. This paper is a draft consultation document (referred to from her on as 'the consultation paper) that sets out the Highland Council's preferred approach to spatial planning for onshore wind energy in Highland and addresses recent national policy changes. It presents the Council's preferred approach for handling a range of issues relevant to onshore wind energy development, and asks a series of questions seeking people's views.

4. A period of review will be undertaken throughout spring and early summer with a view to formally consult on a final draft version in Summer 2015. The comments received about this document will be considered in preparing the formal draft Onshore Wind Energy Supplementary Guidance. As part of this review the Council will also be undertaking appropriate environmental assessment of the emerging document.

5. The reason for this extended period of review is to ensure the guidance aligns with a recent and ongoing work that will influence future decision-making. The main work, relevant issues and expected timescales (correct at the time of writing) are summarised below:

    - **SNH Wild Land Areas** – CONSULTATION- Assessing impacts on wild land Guidance and Descriptions supporting the 2014 wild land areas map
    - **SNH carbon rich soil, deep peat and priority peatland habitats (CPP)**- CONSULTATION- Map of CPP and what Classes should be included within the Spatial Framework
    - **HwLDP**- REVIEW- Consultation expected Autumn 2015

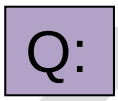
6. Until this consultation and review is complete, and updated supplementary guidance is adopted by the Council, the Interim Onshore Wind Energy Supplementary Guidance remains the key document (alongside HwLDP Policies) the Council will use to assist in determining relevant planning applications.

**How to use this consultation paper:**

This is a consultation document to share your views on. It is structured into sections that will form the basis of the formal Draft Supplementary Guidance.

The first section introduces the document. The second section outlines how the Council think applications for wind energy development should be handled. The third section sets out detailed criteria that all wind energy applications will be assessed against. The remaining sections set out specific guidance for larger and smaller scale developments.

Throughout the document there are a series of issues that highlight key points we are seeking your views on. These parts of the document explain each issue, describe how the Council propose to address it, and ask for your views. Wherever you see a purple boxed Q, there is a question we are asking for your views on:




**How to comment on this consultation paper:**

The public consultation runs from XXX of March to XXX of May 2015. During this time the Council is inviting comments. In particular we ask for your views on the issues set out below.

All comments should be made by the XXX of May 2015 and submitted in one of the following ways:

- By filling in the online comments form accessed from the Council website.
- By email to devplans@highland.gov.uk; or
- In writing to:

Onshore Wind Energy Consultation Paper, Development Plans Team, Development & Infrastructure Service, The Highland Council, Glenurquhart Road, Inverness, IV3 5NX.

**What happens next?**

All comments received during the consultation will be considered by the Council in the preparation of the formal draft Onshore Wind Energy SG, which will be subject to further consultation, before the final Onshore Wind Energy Supplementary Guidance is adopted as statutory supplementary guidance and will form part of the Development Plan. It will therefore be used to assess all relevant planning applications.

# Contents

## Section 1: Introduction

7. This consultation paper sets out how the Council manage onshore wind energy development in the Highlands, and is prepared in line with Section 22 of the Town and Country Planning (Scotland) Act 1997 as amended by the Planning etc. (Scotland) Act 2006. It supplements the Highland-wide Local Development Plan (HwLDP), setting out the detail of Policy 67, where the main principles are established in the Plan.

8. At the time of writing, the HwLDP remains the key planning policy document for Highland. The Council is undertaking a review of HwLDP policies that will follow the local development plan preparation process (as set out by the Scottish Government). This review is expected to last approximately two years and the policies that will emerge through the review will include reference to and be compatible with this supplementary guidance.

9. When the Council deals with planning applications for proposed onshore wind energy development it has regard to the Development Plan (comprising Local Development Plans and Supplementary Guidance) and material considerations. The law states unless material considerations indicate otherwise, an application is to be determined in accordance with the development plan.

10. Scottish Planning Policy (2014) states that "planning authorities should set out… a spatial framework identifying those areas that are likely to be most appropriate for onshore wind farms…", and that "development plans should also set out criteria that will be considered in deciding all applications for wind farms of different scales." These principles underpin the Council's approach to planning for onshore wind energy.

11. Applications for onshore wind farms in excess of 50 MW are considered by Scottish Ministers. Applications below this threshold are determined by the Council. This Supplementary Guidance sets out the Council's approach to assessing planning applications and how it will make observations on development proposals to Scottish Government.

12. Taken together the Local Development Plan and this Supplementary Guidance represent the Council's current response to Scottish Government's indication of the methodology that should be followed in planning for onshore wind energy.

13. The Highland Council offers a pre-application advice service to help applicants submit valid and accurate planning applications. Engaging in pre-application discussion will help avoid delays during the application process and will identify any problems/issues with proposals at an early stage. Further information concerning the Pre-Application Advice Service is available on our website at: http://www.highland.gov.uk/yourenvironment/planning/planningapplications/PreAppAdviceService.htm

14. A lot of the guidance from the Onshore Wind Energy Interim SG and Small-scale Wind Turbine Proposals Interim SG is fit for purpose and has therefore been carried forward in this consultation paper.

## Section 2: The Spatial Framework

15. The Spatial Framework identifies spatial constraints and is intended to assist prospective developers in finding less constrained sites or sites with no significant constraints.

16. Development outwith safeguarded areas (as described in Table 1) may still have impacts and will require assessment in the context of policies contained within the HwLDP.

17. This guidance does not prevent proposals coming forward in any part of Highland but proposals will be assessed and considered with regard to the spatial framework and groupings listed in Table 1 and described below.

18. In addition to constraints included in this mapping, there are other small point-features that may significantly constrain development and will require assessment in the context of the policies contained with the HwLDP.

19. The Council will continue to work on the identification of areas within Highland that require significant protection due to cumulative impacts of existing and consented windfarms and the capacity of the landscape limiting further development. Cumulative impact is as an important consideration identified in Policy 67 of the HwLDP.

## Issue 1: Threshold for applying the Spatial Framework

20. SPP requires Local Authorities to determine what threshold the Spatial Framework should apply to. A single threshold provides a simple and effective approach. This forms the basis of the preferred option.

21. Onshore wind energy developments in Highland are categorised into large and small. Use of this guidance can be determined by the scale of development, Table 1 sets out the criteria for large and small developments.

22. The guidance and categorisation has been prepared with reference to horizontal axis wind turbines. Both may be revised or added to at a future date to take into account the differing nature of vertical axis wind turbines. In the meantime any such proposals can in any case be submitted and will be considered on their merits.

**Table 1: Planning for Onshore Wind Energy**

| | | | | | |
|---|---|---|---|---|---|
| | Larger Scale (turbines 50m+ to blade tip, or 2 or more turbines 30m+ to blade tip) will be required to demonstrate how they have taken into account the Spatial Framework as detailed below | | | | Smaller scale (single turbines below 50m to blade tip, or multiple turbines below 30m to blade tip) |
| **Group 1: Wind farms will not be acceptable** | **Areas where wind farms will not be acceptable: National Parks and National Scenic Areas.** | National Parks & National Scenic Areas | | | Considerations as set out in Sections 2, 4 and 6 should be taken into account |
| **Group 2: Significant protection** | **Recognising the need for significant protection, in these areas wind farms may be appropriate in some circumstances. Further consideration 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.** Considerations as set out in Sections 2, 3, 4 and 6 should be taken into account | National and International designation | | | There may still be impacts on Group 2 areas, where smaller scale developments are proposed. Therefore, proposals will be assessed, taking into account factors set out in sections 3, 5 and 7 |
| | | | Other national important interests | | |
| | | | | Community separation | |
| **Group 3: Wind farm potential** | **Beyond group 1 and 2, wind farms are likely to be acceptable, subject to detailed consideration against defined policy criteria.** | Potential subject to detailed considerations | | | |

NB: Emboldened text is from SPP (2014). Developments outwith areas identified in table 1 may still have potential to impact, and this will be taken into account in deciding planning applications.

**Issue 1: Threshold for applying the Spatial Framework**

| **Preferred Option:** | **Apply a single threshold for the Spatial Framework** | |
|---|---|---|
| **How?** | **Larger Scale** (turbines 50m+ to blade tip, or 2 or more turbines 30m+ to blade tip) will be required to demonstrate how they have taken into account the Spatial Framework | **Smaller scale** (single turbines below 50m to blade tip, or multiple turbines below 30m to blade tip) will be required to undertake rigorous assessment |
| | The Spatial Framework (section 2) would apply, alongside policy and technical guidance (sections 3, 4 and 6). | Development would still be subject to rigorous assessment, as outlined in Sections 3, 5 and 7. |
| **What would this mean?** | Table 1 would provide a clear structure to determine what scale a development proposal would be assessed under. The range of thresholds in the Interim SG would be simplified. | |
| **Q:** | **Do you agree with the threshold identified?** | |
| | **Alternative: Do you think there are alternatives to consider?** | |

**Spatial Framework Groupings**

23. The Spatial Framework sets out three groups, as set out in Table 1 of SPP. These groups identify spatial constraints to wind energy development and are described below.

Group 1 - Areas where wind farms will not be acceptable (Map 1)

24. Scottish Planning Policy clearly states that larger wind farms (which we have suggested be defined as in Table 1 above) will not be acceptable in National Parks or National Scenic Areas.

Group 2 - Areas of significant protection (Map 2)

25. Larger wind farm proposals within Areas of Significant Protection, or proposals that could impact significantly on interests identified, are unlikely to be acceptable. In such cases a heavy burden of proof would lie with the developer to demonstrate why their proposal should be supported. Proposals will be considered on their individual merits in the context of the HwLDP, in particular policies 57 and 67 and other sections of this interim guidance. The following are the mapped Group 2 features:

**Table 2: Group 2 areas of the spatial framework**

| National & International Designations | Other national important interests | Community Separation |
|---|---|---|
| World Heritage Sites<br>Natura 2000 & Ramsar Sites<br>Sites of Special Scientific Interest<br>National Nature Reserves<br>Inventory of Gardens & Designed Landscapes, & Inventory of Historic Battlefields sites | Areas of Wild Land as mapped by Scottish Natural Heritage (2014)<br><br>Carbon rich soils, deep peat and priority peatland habitat (CPP) as mapped by Scottish Natural Heritage (2015) | Separation distance of 2 km set around settlement development area boundaries identified in Local Development Plans |

Group 3 - Areas with potential for wind farm development (Map 3)

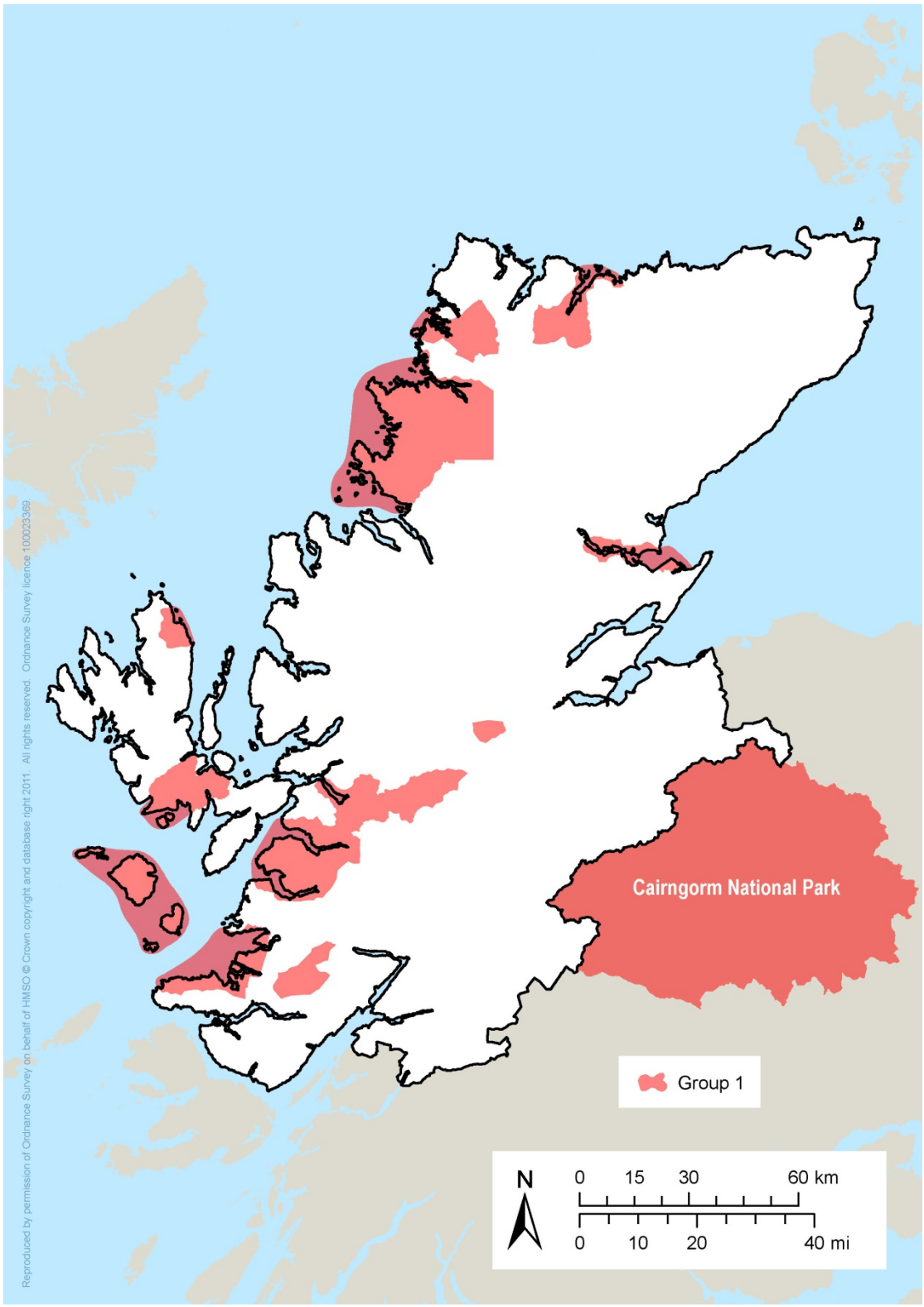
26. These areas do not contain features mapped in Group 1 and 2 above. Proposals in Group 3 areas are likely to be supported, subject to detailed consideration against the HwLDP, in particular policies 57 and 67 and other sections of this interim guidance.

## Issue 2: Community separation distance for the Spatial Framework

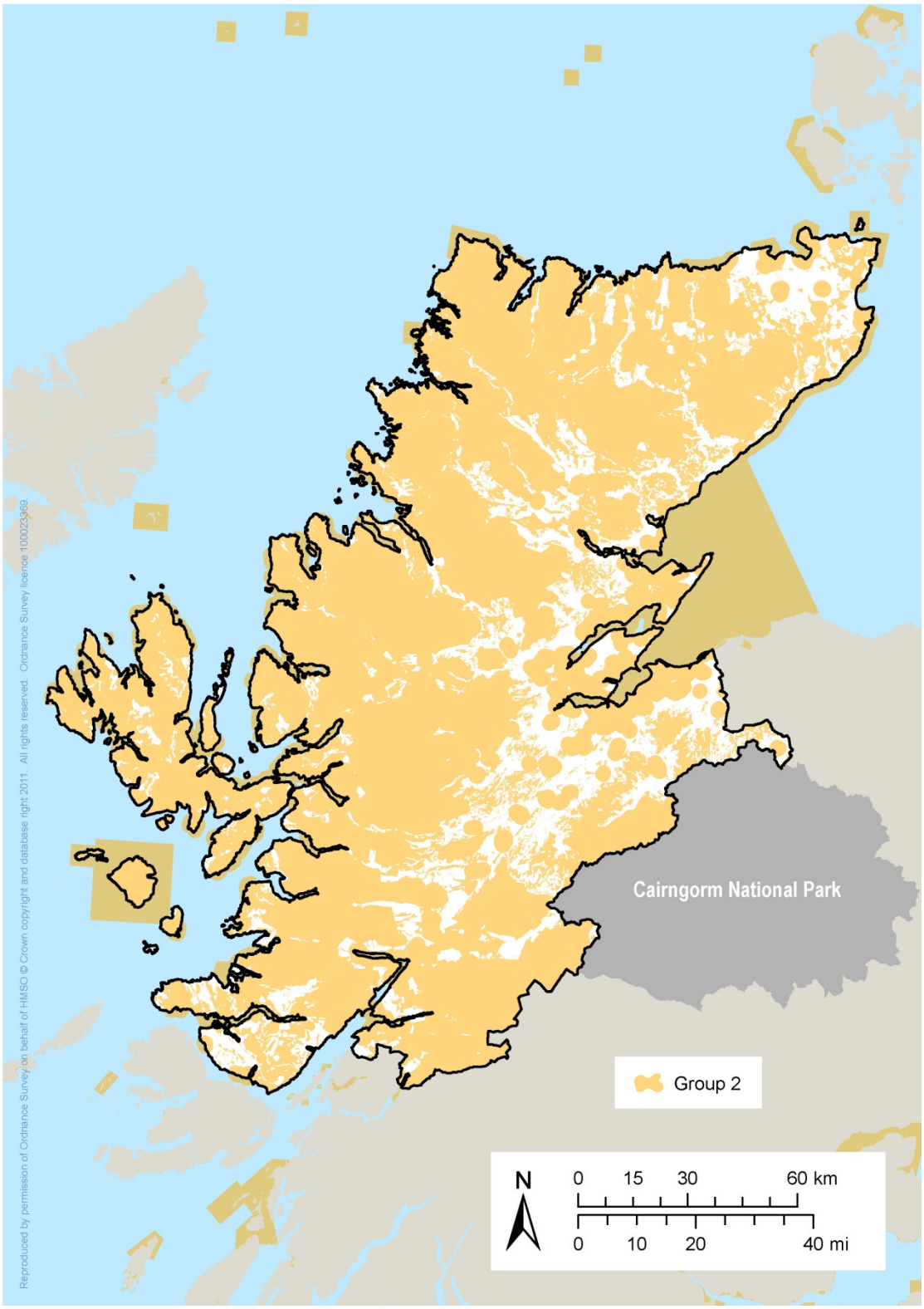
27. SPP requires the Council to define an appropriate separation distance up to a maximum of 2km. We think a 2km distance around communities to afford significant protection as part of Group 2 of the Spatial Framework is fit for purpose. A distance of 2km provides a good baseline indicator in the spatial framework, but further detailed work should be carried out on a case-by-case basis.

| **Preferred Option:** | **Apply 2km as the community separation distance in the Spatial Framework** |
|---|---|
| **What would this mean?** | Continuing the current approach of applying the 2km community separation distance to settlements with a defined boundary in Local Development Plans. Visual impacts on communities would continue to be considered on a case-by-case basis. |
| **Why?** | The 2km distance is appropriate as a baseline. Further work will be required on a case-by-case basis to consider effects of landform and other features restricting views. |
| **Q:** | **Do you agree with applying the maximum community separation distance in the Spatial Framework?** |
| | **Alternative: Do you think alternative distances should be considered?** |

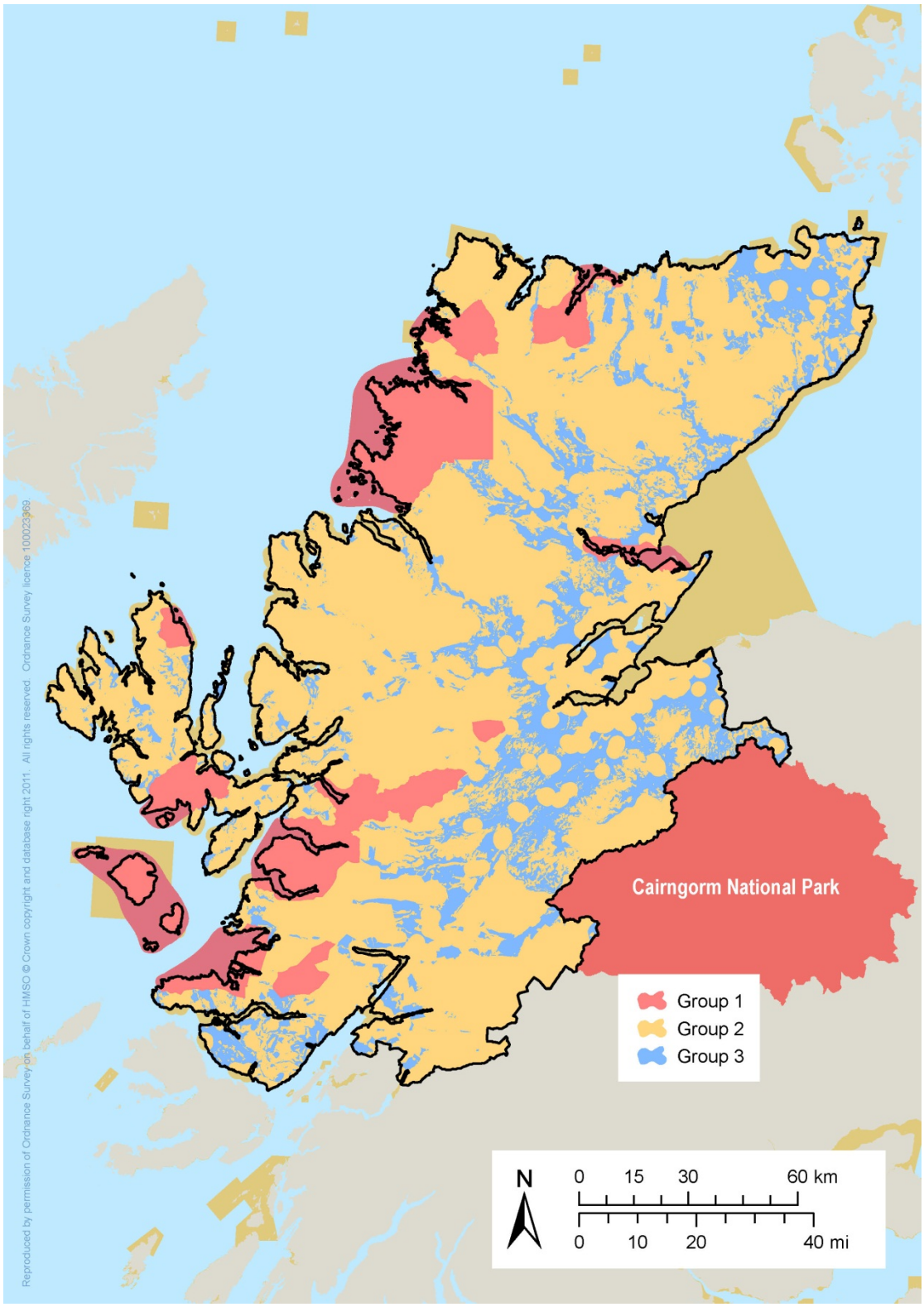
**Map 1: Group 1- Areas where wind farms not acceptable**



**Map 2: Group 2 - Areas of significant protection (including SNH draft CPP)**



**Map 3: Group 3 - Areas with potential for wind farm development**




NB: Where Group 1 features are shown, there may be Group 2 features beneath that are not indicated in this map (Map 3)

## Section 3: Policy guidance

28. Policy 67 of the HwLDP sets out the Council's overall policy for renewable energy in the Highlands, the full policy is provided in Appendix 2.

29. The advice that follows provides a fuller interpretation of the 11 policy criteria for all onshore wind energy proposals including extensions and repowering. The guidelines offer advice on assessing the degree and significance of impact. It will be necessary for the Council to balance these considerations with others that relate to renewable energy generation targets and effects on the economy. Effects and impacts may occur outwith boundaries of designated features or interests. These development guidelines are applicable across Highland and all groups in the spatial framework. Where reference is made to a wind energy proposal or development this includes all associated infrastructure, unless otherwise stated.

| **HwLDP Policy 67 criteria** |
|---|
| Natural, Built and Cultural Heritage |
| Other Species and Habitat Interests |
| Landscape and Visual Impact |
| Amenity at Sensitive Locations |
| Safety and Amenity of Individuals and Individual Properties |
| The Water Environment |
| Safety of Airport, Defence and Emergency Service Operations |
| The Operational Efficiency of Other Communications |
| The Quantity and Quality of Public Access |
| Other Tourism and Recreation Interests |
| Traffic and Transport Interests |

**Table 3: Policy criteria for onshore wind energy proposals**

**Natural, Built and Cultural Heritage**

30. Reference should be made to Policy 57 of the HwLDP. Consideration will be given to the potential impact of development on all features covered by the policy, including those features not mapped and others not expanded upon in this guidance.

31. Any proposal likely to have a significant effect on a European site (Special Area of Conservation, Special Protection Area or Ramsar site) should provide sufficient information to enable the Council to carry out an appropriate assessment under the Conservation (Natural habitats &c.) Regulations 1994 as amended. Such development may only be permitted if the Council can conclude that the development would not have an adverse effect alone or in combination with other proposals on the integrity of any European site unless there are no alternative solutions and there are imperative reasons of overriding public interest for doing so. Where a priority habitat or species (as defined in Annex 1 of the EC Habitats Directive) would be affected, reasons of overriding interest should relate to human health, public safety, beneficial consequences of primary importance for the environment or their reasons subject to the opinion of the European Commission (via Scottish Ministers). The HRA must ensure it considers any connectivity between international nature conservation designation/s. Where a habitat management plan is necessary developers should consult the guidance within Good Practice During Windfarm Construction.

32. Any proposal must also demonstrate it will not compromise the amenity and heritage resource, for example, National Parks, National Scenic Areas**,** Sites of Special Scientific Interest or National Nature Reserves. Potential for significant adverse effects on nationally important features must be clearly outweighed by social or economic benefit of national importance. Policy 57 of HwLDP, its supporting text and Appendix 2 provide a full list of features safeguarded by this policy.

33. The Council has published Special Landscape Area citations that summarise areas' key landscape and visual characteristics; special qualities; key sensitivities to landscape change, and possible measures for enhancement. These should be referred to as they will assist in the assessment of impact of development proposals.

34. All proposals must demonstrate that the development will not have a significant adverse effect on the site, context and setting of historic environment assets. These considerations should extend to designated and significant undesignated assets and areas. Developers are required to adequately consider implications of development on direct physical impact, indirect impacts and detail any potential for cumulative effects on historic environment assets, their setting and visual amenity and the impacts of any secondary developments such as power lines or transmission stations as part of the process of preparing an Environmental Statement.

35. Historic environment assets are defined as those identified in the Highland Historic Environment Record and/or in national listings, schedules or registers held by Historic Scotland or other competent authorities, including: conservation

areas; listed buildings; historic gardens and designed landscapes; sites and settings of Scheduled (Ancient) Monuments and other unscheduled assets and areas of archaeological significance. Developers are encouraged to consider The Councils' standards for Archaeological work and seek early discussions with the Council and other interested agencies regarding national, regional and local archaeological issues.

36. Wild land is identified in the HwLDP as a feature to be safeguarded under policy 57. The Spatial Framework identifies wild land as a mapped environmental interest for significant protection.

37. Where a proposal is likely to significant effects on the qualities of a mapped area of wild land, as identified on the SNH Wild Land Areas Map (2014) a wild land assessment may be required, and should be carried out in line with the forthcoming SNH Assessing Impacts on Wild Land Guidance. Wind energy developments within mapped areas of wild land are unlikely to be supported unless it can be demonstrated that significant effects on the qualities of these areas can be significantly overcome.

38. Development outwith mapped areas of wild land that could have significant effects upon their qualities it may also require a wild land assessment and should demonstrate how effects have been overcome. SNH have prepared descriptions for mapped areas of wild land, and within these there are sections on 'Potential for Enhancement' to the mapped areas. These suggestions may offer scope for developments outwith a mapped area of wild land that have potential for significant effects on it to offset effects.

## Issue 3: Safeguarding areas of wild land

39. SPP requires that the areas of wild land mapped by SNH on their 2014 map of wild land areas to be included as Group 2 Areas of Significant Protection in the spatial framework. As a result SNH are revising their guidance on assessing impacts on wild land and are also producing descriptions of these mapped areas. We think this includes both larger and smaller scale wind developments (as defined in Table 1) and any development within mapped areas or outwith but with potential to have significant effects on the qualities of these areas.

| **Preferred Option:** | **Safeguard areas of wild land by clearly setting out the approach for development proposals both within and outwith mapped areas** | |
|---|---|---|
| **How?** | **Wind energy proposals in mapped areas of wild land:** | **Wind energy proposals outwith mapped areas of wild land, but with potential to have significant effects on their qualities:** |
| | It is unlikely that wind energy proposals could be supported. Any proposals that do come forward should clearly demonstrate mitigation to overcome significant effects on qualities of these areas. | Such proposals should clearly demonstrate mitigation to overcome significant effects on qualities of these areas. The SNH wild land area descriptions set out potential for enhancements (e.g. removal of redundant stock fences, native tree planting), and this may offer scope to offset effects in certain cases. |
| **What would this mean?** | SPP recognises the SNH-mapped areas of wild land as "nationally important mapped environmental interests" and requires the Council to "identify and safeguard the character of [these mapped] areas". We think this means that within and outwith mapped areas of wild land, particular attention has to be paid to potential significant effects on their qualities. | |
| **Q:** | **Do you agree with this option?** | |
| | **Alternative: Do you think another approach should be taken?** | |

**Other Species and Habitat Interests**

40. Wind energy developments have potential to impact upon species and habitats for example by disturbing species, creating collision risks or disturbing feeding areas. Developers should refer to policies 58, 59, 60 and 74 of HwLDP for details of the legal protection given to species and habitats. If a Habitats Regulations Appraisal identifies that proposals are likely to have a significant effect on a European nature conservation site, alone or in combination with another proposal, it must be subject to an assessment by the competent authority. In respect of animal and plant species identified in Schedules 2 and 4 of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended (European Protected Species), wind energy proposals should seek to avoid any adverse impacts on these species. Where a licence will be required under Regulation 44, the Council must be satisfied that all three tests for a licence could be met. In addition, the Council will give due consideration to the wider natural heritage beyond the confines of designated sites, particularly those listed below, where they are of major importance or contribute to the coherence of the Natura network of European sites:

- Areas of habitats listed in Annex 1 and the habitats of species of community interest listed in Annexes 2, 4 and 5 of the Habitats Directive;

- Areas which support habitats of naturally occurring wild birds, particularly those on Annex 1 of the Birds Directive, migratory species and birds of conservation concern on the Red and Amber Lists.

41. Consideration will also be given to species listed in Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended). Licensing requirements have been added by s. 18 of the Wildlife and Natural Environment (Scotland) Act 2011 inserting s. 16 (3) of the Wildlife and Countryside Act 1981 as amended. Thus where a license is required the Council will need to be satisfied that (a) undertaking the conduct so authorised will give rise to, or contribute towards the achievement of, a significant social, economic or environmental benefit, and (b) there is no other satisfactory solution.

42. The Council has Supplementary Guidance on statutorily protected species and this should be referred to by any prospective developer.

**Landscape and Visual Impact**

43. Any wind energy proposal must demonstrate that the development will not have a significant adverse effect, individually or cumulatively (with other built, permitted or lodged wind energy proposals), on:

- local landscape character (as defined within a Landscape Character Assessment);
- any Special Landscape Areas;
- any National Park or National Scenic Area (noting that such areas fall within "areas where windfarms will not be acceptable" in the Spatial Framework);
- Wild Land Areas;
- 2km from the development boundaries of settlements (as defined in Local Plans) especially where they are likely to be a prominent feature in an open landscape.
- important public views (this includes important views from popular public viewpoints, the adopted road network especially designated tourist routes, the public footpath network particularly core paths network and other recognised visitor locations);
- the setting of any Scheduled (Ancient) Monument; Designed Landscape, listed building or conservation area and other historic sites as agreed with the Council;
- the Spatial Framework in the case of larger scale development (as we have suggested be defined as in Table 1) having regard to the purpose and reasons why areas have been safeguarded, whilst also having regard to any associated documentation that the Council may publish for this purpose.
- the guidance in this document that applies to smaller scale development (as we have suggested be defined as in Table 1) whilst also having regard to any associated documentation that the Council may publish for this purpose.

44. Developers are urged to consider adequate mitigation of any adverse effects. This should include consideration of such matters as:

- Micro-siting of turbine positions to reduce overall impact of the scheme;
- Turbine heights, including hub height and rotor diameter;
- Number of turbines;
- Turbine colour, including consideration of and reasons for any variance from the typical off white/ pale grey colours;
- Design and arrangement of any lighting required, to minimise its impact;
- Undergrounding of any power lines connecting individual turbines to any on-site sub-station;
- Undergrounding or sensitive treatment of those power lines connecting any wind farm sub-station to the electricity distribution system;

- Arrangements for any transformers for individual turbines (the Council expects these to be accommodated and enclosed within the turbine mast in order to reduce the landscape and visual impact of the development);
- Length, route, visibility and construction of access tracks, which can have significant impacts.

45. Developers may refer to the SNH publication Siting and Designing Windfarms in the Landscape (2014).

46. The Council has produced Visualisation Standards for Wind Energy Developments (2010) and developers will be expected to follow those in preparing their submission. It may be noted that these differ from guidance by SNH in their publication *'Visual Representation of Windfarms – SNH'* (2006); however, the Council's standards do not seek additional information but the information to be presented in a particular way. Developers are encouraged to discuss and confirm intentions for the preparation of visualisations with the Council in advance of preparing their submission.

47. When considering Electricity Transmission Infrastructure specifically refer to Policy 69 of HwLDP.

## Issue 4: Identifying strategic capacity for wind energy development in Highland

48. SPP requires the Council to "identify where there is strategic capacity for wind farms, and areas with the greatest potential for wind development". We think that this means providing high-level indicative mapping that helps identify where the most appropriate places for wind energy development are. We do not think this mapping would indicate where consents would be given or where they would not. All proposals will still have to be considered on a case-by-case basis, taking into account all features that may have a limiting effect on the proposal. We think there are three main factors to consider to effectively map strategic capacity:

**Issue 4: Cumulative effects**

49. Cumulative effects of wind energy are typically caused by more turbines/ wind farms being added to a particular locality where there are already turbines/ wind farms. We think cumulative effects are a key consideration to help identify strategic capacity:

| Preferred Option: | Seek people's views to help identify areas of cumulative effect |
|---|---|
| Why? | Cumulative effects of wind development are one of the key factors to consider in identifying where there is strategic capacity for wind energy development |
| Q: | **Where do you think there are cumulative effects of wind energy development in Highland and what are these effects?** |
| | **If the cumulative effects you identify are about public views, what places do you experience these views from?** |
| | **Alternative: Do you think it would be better not to consider cumulative effects in identifying strategic capacity?** |

**Issue 4: Local Features**

50. The Spatial Framework (Section 2) outlines how Larger Scale wind energy developments (as defined in Table 1) are to be safeguarded in line with the requirements of SPP. The Council are also required by SPP to set out criteria that all wind energy applications are to be assessed against. There are particular features not included in the Spatial Framework that are locally important, and that are used in determining planning applications. We think such features should be used to help identify where there is strategic capacity. These features are listed below and shown in Map 4.

- Special Landscape Areas
- Airport Safeguarding Surfaces
- Conservation Areas

| Preferred Option: | Use local features to help identify strategic capacity |
|---|---|
| Why? | Local features are used to help determine planning applications and therefore should be used in mapping strategic capacity |
| Q: | **Do you agree that we should use local features to help map strategic capacity, and are there others you think we should include?** |
| | **Alternative: Do you think we should not use additional local features in identifying strategic capacity?** |

**Issue 4: Mapping strategic capacity**

51. Map 4 shows areas left after we overlay local features on group 3 of the Spatial Framework. We think this forms a sound basis for helping to identify strategic capacity. We think we should use this mapping approach along with information we receive from the consultation about cumulative effects to define indicative areas of strategic capacity. We also think that the best approach for identifying strategic capacity will be to take all of the considerations above, undertake further spatial analysis applying expert judgement, and use a method of identifying wind energy clusters and spaces between them.

| | |
|---|---|
| **Preferred Option:** | **Use local features, national constraints and cumulative effects to help identify wind energy clusters and spaces between them** |
| **Why?** | Combining the spatial framework with local features and information about cumulative effects provides a strong baseline to identify strategic capacity. Combining this information with further spatial analysis and expert judgement will help identify clusters of wind energy development with spaces between that will form the basis of a map of strategic capacity. |
| **Q:** | **Do you agree with this method for identifying strategic capacity?** |
| | **Alternative: Do you have an alternative method?** |

**Amenity at Sensitive Locations**

52. The Council would encourage turbines associated with large-scale wind energy developments to be located at a distance of at least 2km from the development boundaries of settlements (as defined in Local Plans) especially where they are likely to be a prominent feature in an open landscape. Within this distance, applications will continue to be judged on a case-by-case basis. Community amenity impact should be assessed at a range of receptor locations including residential properties, work places and recognised visitor sites. This should include consideration of receptors outwith any defined settlement boundary. In respect of residential amenity specifically, a development that is judged to have significant long-term detrimental impacts will not be supported.

53. Highland generally has lower levels of background noise than elsewhere. Due to this the Council expects wind energy developments to achieve a standard whereby noise arising from wind turbines does not have a detrimental impact on the amenity at noise sensitive receptors. The Council will continue to apply the standards of noise arising from wind turbines not exceeding 35dB at any noise sensitive location. Technical guidance is included in this document in sections 6 and 7 that should be referred to.

54. ETSU-R-97 permits a higher level of noise at properties where the occupant has a financial involvement in the development. For financial involvement to be applicable the person must play an active and direct part in the development. Site specific noise assessment will enable the Council to specify a minimum separation distance which the Council will require to be maintained between a proposed turbine and both existing and future dwellings in the vicinity. The Council may consider a relaxation of this separation distance and noise levels in respect of a dwelling which is occupied by a person with an ongoing financial involvement in the wind turbine(s).

55. Developers are urged to consider adequate mitigation of any adverse effects. This should include planning conditions or agreements to control issues such as: noise levels; traffic management; commissioning and decommissioning arrangements and correction of any electro-magnetic interference. Scottish Government Planning Advice discusses these matters further and provides links to further guidance and assessment methods. Section 5 provides guidance for

smaller-scale wind turbine proposals on issues such as noise and what will be required for assessment.

## Issue 5: Financial Involvement

56. Current Supplementary Guidance highlights that where an occupant of a property has a financial interest in a wind energy development, ETSU-R-97 guidance permits a higher level of noise at that property. We do not think it is necessary to highlight this in the guidance.

| | |
|---|---|
| **Preferred Option:** | **Remove reference to financial involvement** |
| **Why?** | It is not necessary to make reference to financial involvement. Where there is potential for the ETSU-R-97 guidelines to be used, this can be done on a case-by-case basis. |
| **Q:** | **Do you agree with this option?** |
| | **Alternative: Should we retain references to ETSU-R-97 guidance for financial involvement, and if so, should the guidance on it be improved?** |

## Issue 6: Shadow Flicker

57. Effects of wind energy developments can include shadow flicker. This can cause particular issues for regularly occupied buildings that are not associated with a wind energy development. Based on Council experience, the issue of shadow flicker needs updated in this guidance.

| | |
|---|---|
| **Preferred Option:** | **Require a shadow flicker assessment for regularly occupied buildings within a distance of 11 times rotor diameter to the nearest turbine (our current guidance is 10 times rotor diameter)** |
| **Why?** | The Council's experience is that shadow flicker assessment is a recurring issue that needs updated. Where shadow flicker cannot be designed out of schemes, we may exceptionally support proposals that can demonstrate appropriate mitigation. |
| **What would this mean?** | Beneath the 11 times rotor diameter threshold appropriate mitigation may be to implement turbine shut down systems. Where turbine shut down systems are installed the maximum shadow flicker effect we would accept is 5 minutes per day. |
| **Q:** | **Do you agree with our preferred approach to addressing shadow flicker?** |
| | **Alternative: Should there be a presumption against development that causes any shadow flicker to regularly occupied buildings?** |

**Safety and Amenity of Individuals and Individual Properties**

58. Any proposal for a wind energy development must demonstrate that the development will not have a significant adverse effect on the safety and amenity enjoyed by any residential property. This will include consideration of noise pollution, ice throw in winter conditions, shadow flicker or shadow throw. It may be appropriate to set back turbines from such properties or implement turbine shut-down when necessary, although significant separation will normally be expected in any case.

59. Wind energy schemes should always be designed to avoid causing shadow flicker to any regularly occupied buildings not associated with the development. Where this cannot be achieved, the Council will expect wind energy developments to be located a minimum distance of 11 times the blade diameter of the turbine(s) from any regularly occupied buildings not associated with the development. Within a distance less than 11 times the blade diameter, a shadow flicker assessment will be required. In some exceptional circumstances the Council may support a scheme that relies on mitigation. In such instances turbine shutdown systems will be the required mitigation, and the maximum shadow flicker we would accept is 5 minutes per day.

60. The Council expects turbines to be sited at least a minimum distance equivalent to twice the height of the turbine to blade tip from public roads and railways. This is to ensure adequate safety to road and rail from turbine collapse and to limit impact of shadow flicker to road users, as well as to decrease general distraction.

61. Due to the potential impacts arising from wind energy developments, the presence of wind turbines may have some limiting effects on the potential to subsequently develop land in the area for other uses. It is therefore important to consider the impact of proposed wind energy development not only on existing land uses but also those permitted or which are included as specific proposals in the Development Plan. The Scottish Government's Sustainable Land Use Strategy should be referred to.

## Issue 7: Road and railway considerations

62. The guidance needs to include further information about the relationship between turbine siting, public roads and railways.

| | |
|---|---|
| **Preferred Option:** | **Include requirement for minimum distance of twice the height of turbine to blade tip from public roads and railways** |
| **Why?** | Further guidance is required to emphasise road and rail considerations |
| **How?** | Add supporting text to highlight the relationship between turbine siting, public roads and railways |
| **Q:** | **Do you agree with our preferred option?** |
| | **Alternative: Do you think there are alternatives to consider?** |

**The Water Environment**

63. Policy 63 of the HwLDP relates to the Water Environment.

64. Any proposal for a wind energy development must have regard to the requirements of the Water Framework Directive. It should demonstrate that the development will not have a significant adverse effect individually or cumulatively (with other built, permitted or lodged wind energy proposals) on the water environment. The water environment includes ground water, surface water (including water supply) and aquatic ecosystems. Developments should be designed to avoid impacts upon the water environment wherever possible. Where impacts on the water environment cannot be avoided then developers will be expected to demonstrate how these impacts will be mitigated. SEPA's Planning Guidance on Windfarm Developments provides detailed advice as to what information would be required to demonstrate this. The interactive River Basin Management Plan provides useful site specific data which could help inform these assessments.

65. Where peat is present onsite, developers will be expected to provide geotechnical and hydrological information in support of applications identifying the presence of peat at each site, including the risk of landslide connected to any development work. Further guidance is provided in the Scottish Government's Peat Landslide Hazard and Risk Assessments; Best Practice Guide for Proposed Electricity Generation Developments (2007).

66. When formulating ideas and designs for the site prior to submitting their planning application, applicants should contact SEPA at an early stage to discuss their proposals and to ensure they meet SEPA's requirements.

**Safety of Airport, Defence and Emergency Service Operations**

67. Any proposal for a wind energy development must demonstrate that the development will not have a significant adverse effect individually or cumulatively (with other built, permitted or lodged wind energy proposals) on airport, defence or emergency service operations. This includes flight activity; navigation and surveillance systems; and associated infrastructure.

68. A consultation proforma has been agreed between the British Wind Energy Association and key aviation consultees such as the Ministry of Defence, National Air Traffic Service and the UK Civil Aviation Authority to initiate a consultation, so when there are aviation issues the applicant is encouraged to complete the pre application proforma which can be found on the Renewable UK website http://www.bwea.com/aviation/proforma.html to learn how their proposal could be affected by an aviation constraint. Furthermore the MOD has also set up a wind energy and aviation helpline number: 0121 311 3847.

69. Developers should make themselves aware of the full extent of the aviation stakeholders in their area who may be affected by their proposal. The CAA general advice continues to be that developers of potential wind farms should engage with aviation stakeholders at the earliest opportunity, using the guidance provided in CAA Publication 764. Any impact on aviation can therefore be mitigated ahead of the formal planning process.

70. When designing and siting proposals developers should pay particular regard to:

- MOD 'Safeguarding Extents'
- Health & Safety Executive Safeguarding Zones
- NATS En Route Plc Safeguarding Maps3
- Department of Trade and Industry "Wind Energy and Aviation Interest – Interim Guidance"
- Airport Safeguarding Surfaces

**The Operational Efficiency of Other Communications**

71. The siting of wind turbines must have regard to radio, TV, telecoms and other communication systems. Developments shall be assessed by consultation with relevant operators. Planning conditions or legal agreements may require developers to correct any electromagnetic interference at their own expense. The Joint Radio Company should be contacted for joint screening for telemetry or microwave links in use by either electricity or gas utilities.

**The Quantity and Quality of Public Access**

72. Policy 77 of the HwLDP refers to public access.

73. Any proposal for a wind energy development must demonstrate that the development will not have a significant adverse effect on the quality and quantity of public access. This will include any effect on a route included in a Core Paths Plan, an access point to water, wider access rights or Rights of Way as provided by the Scottish Rights of Way Society. The Council will encourage developers to improve path networks and create new opportunities for access. Members of the

public occasionally access land around wind farms so applicants are encouraged to erect information boards at entrances to sites to make members of the public aware of potential risks.

74. Developers are urged to consider adequate mitigation of any adverse effects. This should include:

- retention of any existing path or water access point while maintaining or enhancing its amenity value; or
- alternative access provision that is no less attractive, and is safe and convenient for public use.

75. For a proposal classified as a Major Development, the Council will require the developer to submit an Access Plan. This should show the existing public, non-motorised public access footpaths, bridleways and cycleways on the site, together with proposed public access provision, both during construction and after completion of the development (including links to existing path networks and to the surrounding area, and access point to water). The right of responsible access must be maintained during construction.

76. SNH's Guidance for the Preparation of an Outdoor Access Plan should be referred to.

77. Applicants should refer to The Right to Roam: The Land Reform (Scotland) Act 2003.

**Other Tourism and Recreation Interests**

78. In giving consideration to positive or negative effects that a proposal may be likely to have on the local and national economy, the Council will have regard to a range of considerations which may include but not be limited to:

- the scale and nature of any potential economic spin-offs for local businesses, employment opportunities, etc. arising from the proposals (evidence for this may be available as an output from discussions on community benefit, which are carried out separately from planning matters) Reference should be made the Scottish Government's Good Practice for Community Benefits;
- effects on industries for which Highland's landscape is important – for example tourism and recreation;
- effects on industries such as forestry brought about through changes to land use and management.

**Traffic and Transport Interests**

79. Any proposal for a wind energy development must demonstrate that the development will not have a significant adverse effect individually or cumulatively (with other built, permitted or lodged wind energy proposals) on the public road network. Ideally locations should be chosen that have spare capacity in the road network to carry abnormal loads and the construction traffic associated with the scale of the development proposed. That spare capacity (or mitigation to create capacity) should address the lifetime impact of the development from construction through maintenance to replacement or decommissioning.

80. Developers will be required to undertake a Transport Assessment to establish the transport impacts of the construction traffic associated with the development, the suitability of the existing road network, the impact on existing road users and adjacent communities, and the requirements for any mitigation works. This should include pre-application negotiation with the Roads Authority to agree the extent and nature of necessary strengthening, improvements and other mitigation works.

81. The proposals for the use of the public roads and the mitigation works required will require the approval of the Roads Authority. Developers will be required to enter into a section 96 (Roads Scotland Act) agreement with the Council to cover damage to the public roads by construction traffic and may be required to provide a bond as surety. Developers should consider measures to reduce the impact of construction traffic on the road network such as the use of on site borrow pits and on site concrete batching. The passage of the abnormal loads required for the transport of turbine components can be problematic and should be given very early consideration in the planning of projects

**Community Renewable Energy Developments**

82. Policy 68 of the HwLDP refers to community renewable energy developments.

83. A wide range of models exist whereby a community may develop renewable energy schemes for the benefit of the community. For a scheme to be considered to be a 'community' scheme, appropriate measures must normally be in place for the lifetime of the development for community ownership arrangements and for the power and/or income to go directly to an approved community organisation.

84. The Council/ Highlands & Islands Enterprise 'Community Toolkit' and the Scottish Government/ Community Energy Scotland publication 'Community Renewable Energy Toolkit' provide useful information.

**Restoration bonds**

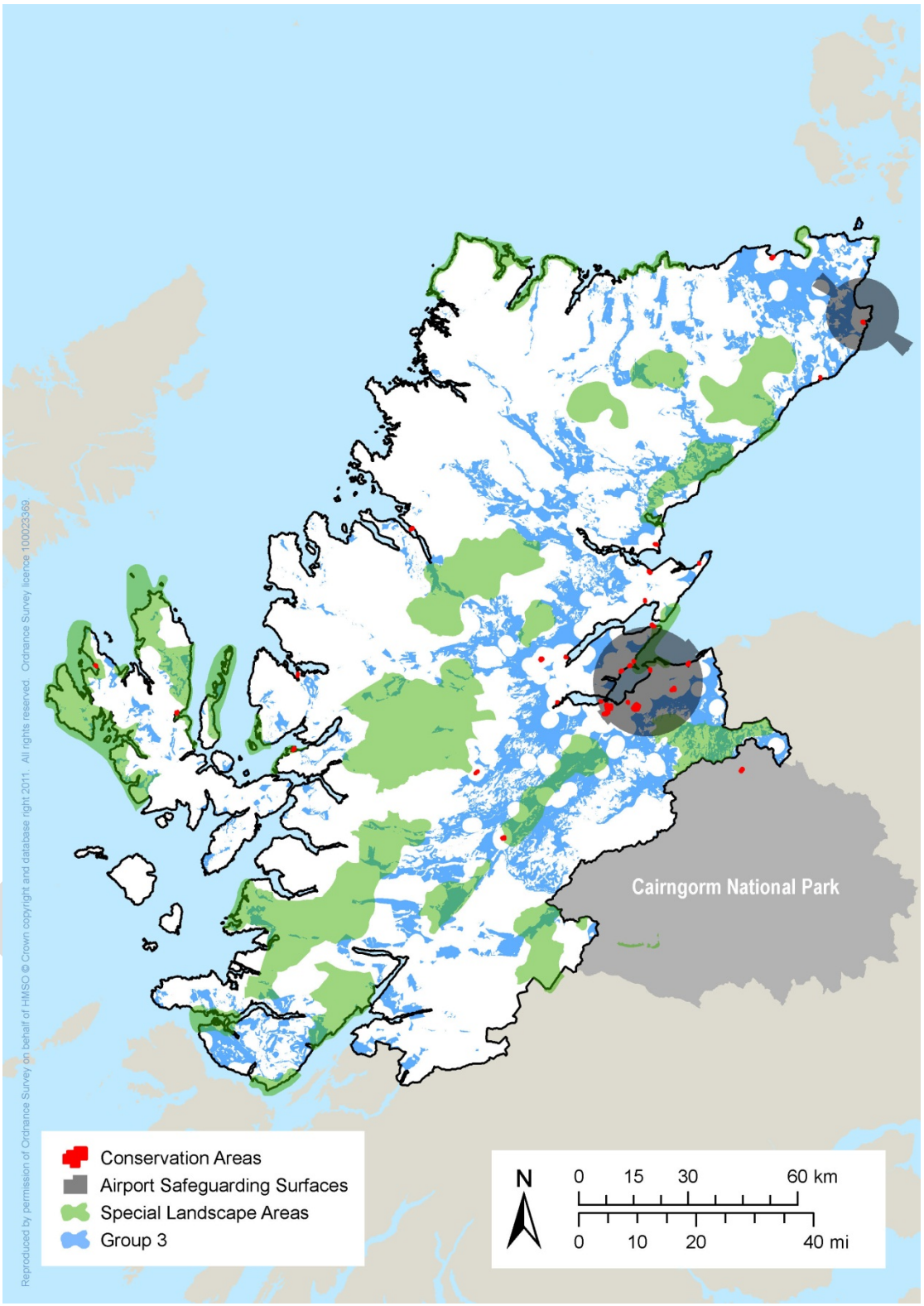
85. The Council will seek assurance that the landowners of a proposed windfarm site can access funds to restore their land at the end of the operational life of the development. The Council will also seek to ensure that funds are available to enable the Council itself to undertake such site restoration if the need arises. Where windfarms are concerned, the Council needs to ensure, as far as it can, that there will be robust financial guarantees in place over sufficiently long periods to enable this to be undertaken if required, bearing in mind that windfarm permissions typically span a 25 year period. These should be secured either by bond of caution (Bond) or by irrevocable letter of credit (LoC) from an appropriate bank. Parent Company Guarantees will not be accepted. Bonds/LoCs from major banks are a safer way of securing the Council's interests in these cases.

## Issue 8: Restoration bonds

86. In assessing wind energy proposals, the Council currently put in place planning conditions that require site restoration at the end of the operational life of a development. This is achieved by ensuring financial guarantees like bonds or letters of irrevocable credit from appropriate banks. SPP continues to require mechanisms for decommissioning and site restoration for energy infrastructure. There remains a national debate about this issue and there is ongoing work that may result in national guidance being produced.

| **Preferred Option:** | **Use updated national guidance for restoration bonds** |
|---|---|
| **Why?** | More information needs to be provided for developers that emphasises the importance of site restoration, and sets out the detail of best practice for doing so. |
| **How will this be done?** | We anticipate further guidance will be produced that can be referred to in the final draft supplementary guidance that follows this consultation paper. This may be national or local guidance. Full details will be provided in the final draft for consultation in summer. In the interim, development management officers will continue to carefully scrutinise developer arrangements. |
| **Q:** | **Do you agree with this option?** |
| | **Alternative: Should we continue to use the existing reference to restoration bonds without providing further guidance?** |

**Map 4: Proposed baseline map for identifying strategic capacity**




NB: the blue-shaded areas represent the starting point for identifying strategic capacity

## Section 4: Larger scale wind energy proposals

87. Before using this section of the guidance, wind energy proposals should be checked to confirm they comply with the Council's definition of larger scale, as set out in Table 1 on page 7.

**Design and Layout of large scale windfarms**

88. The design and layout of a windfarm will be influenced by a wide range of environmental and technical considerations.

89. The number, positions and heights of turbines will be influenced by balancing a number of considerations, including but not limited to:

- the benefits of increasing the separation between turbines in order to reduce turbulence and losses across turbine arrays;
- the benefits of reducing the separation between turbines in order to reduce the footprint (area) of that size of windfarm, which may enable additional turbines to be added or impact to be mitigated;
- the effects of different numbers, positions and heights of turbines on the landscape impact of the windfarm, which may help in reducing impact and/or freeing up capacity in the landscape for additional turbines;
- the effect of different numbers, positions and heights of turbines on the operational efficiency of the windfarm.

90. Whilst the operational efficiency of a windfarm is a matter for commercial decision making, the Council does expect consideration to be given both to optimising development (to facilitate achievement of renewable energy targets) and where necessary striking a balance with mitigation of impacts.

91. Where cumulative impacts of multiple windfarm developments may occur, using turbines of similar dimensions and specification to those existing when in close proximity to those existing schemes may help reduce the impact.

92. Design and layout of access tracks and of other infrastructure will also be important considerations in terms of the overall impact of a scheme.

93. It can be helpful for developers to illustrate and explain the steps taken in developing the design and layout of their project, for example how it has responded through iterations to any issues that have been identified through that process.

94. Developers may refer to the SNH publication Siting and Designing Windfarms in the Landscape (2014).

**Forestry**

95. Policies 51 and 52 of the HwLDP refer to trees and woodland and development in woodland.

96. There has been a trend towards targeting commercial forestry plantations for windfarm developments; such areas often are less constrained in terms of conservation designations and can benefit from existing road infrastructure. However, where felling would be required the individual or cumulative effect of these proposals could result in a substantial loss of commercial woodland. This

could have a significant impact on longer term local employment and timber supply. The objective of the Scottish Forest Strategy (2006) is to increase Scotland's forest cover from 17% to around 25% by the second half of the century and significant loss of woodland would make that Government aim more difficult to achieve.

97. Therefore developers should look to minimise loss of woodland. The Council has produced Supplementary Guidance on Trees, Woodlands and Development and this should be referred to by any prospective developer.

98. The Scottish Government has a policy on the 'Control of Woodland Removal'. Annex B of that policy paper identifies windfarms as being one of the principal causes of woodland removal between 1990 and 2008. This gives criteria for determining the acceptability of woodland removal both with and without a requirement for compensatory planting. Annex C provides broad guidance on meeting acceptability criteria for woodland removal and any prospective developer should demonstrate that this proposal meets the necessary criteria.

**Peat**

99. Policy 55 of the HwLDP refers to peat and soils.

100. Where development is proposed on peatland, applicants should refer to 'Calculating Carbon Savings from Wind Farms on Scottish Peatlands – A New Approach (2011). Applicants are encouraged to provide relevant information with regard to the whole life carbon balance of a development where possible, for example using a 'Carbon Calculator'. However applicants with Section 36 applications will be expected to use the carbon calculator in preparing their application if it is on an area of deep peat. The Council may ask for a habitat management plan which may include consideration of peatland habitat to be submitted by the applicant. Applicants should also refer to 'Good Practice during Windfarm Construction' guidance (updated 2013) developed by Scottish Renewables, SNH, SEPA and FCS.

101. Applicants should have regard to the carbon rich soils, deep peat and priority peatland habitat (CPP) mapping produced by SNH (2015). If a proposal is brought forward in an area identified as CPP, it must be clearly demonstrated through the Environmental Impact Assessment process that all significant effects on the qualities of the area(s) can be significantly overcome through siting, design or other mitigation. Impacts must consider all stages from project inception to wind farm operation and decommissioning- including a detailed construction environmental management plan.

102. If there are peatland or mire systems present on any development proposal, the planning submission should demonstrate how the layout and design of the proposal, including any infrastructures, avoid impacts upon such areas where possible. For areas where avoidance is impossible details of how impact is minimised and mitigated should be provided, including a detailed map of peat depth for all construction elements that affect peatland habitats. The peat depth survey should include details of the basic peatland characteristics. Peatland impacts that should be considered include those from waste management,

drainage, dewatering, excavation and pollution. By adopting an approach of minimising disruption to peatland, the volume of excavated peat can be minimised and the commonly experienced difficulties in dealing with surplus peat reduced. Further guidance on peatlands can be found in SEPA's Regulatory Position Statement – Developments on Peat.

103. SEPA in collaboration with Scottish Renewables has published guidance on the assessment of peat volumes, reuse of excavated peat and the minimisation of waste, which is aimed at developments on peat. It supports SEPA's Regulatory Position Statement – Developments on Peat.

104. Applicants should refer to the Scottish Government's Land Use Strategy particularly maps 6 and 8.

105. Regard should be had to any published management strategies for peatlands.

106. There is also the issue of peat slide/bog burst risk; Scottish Government's Peat Hazard and Risk Assessment Guide is available and developers should demonstrate how proposals will not pose any increased risk of peat slide or bog burst.

## Issue 9: Carbon rich soils, deep peat and priority peatland habitat

107. SPP requires that mapped areas of carbon rich soil, deep peat and priority peatland habitat (CPP) be included as Group 2 Areas of Significant Protection in the spatial framework. SNH have recently published mapping of CPP and are consulting on the methodology and use of the mapping, including for mapping CPP in the Spatial Framework.

108. Whilst this SNH consultation is live at the time of writing, and the information therefore subject to change, the approach taken in this paper is based on the assumption that the information presented by SNH will be the same in their final version.

109. Although CPP have been afforded the same status as mapped areas of wild land in SPP, the approach to affording them significant protection is fundamentally different. Whilst the impacts of wind energy development on wild land relate to landscape and visual factors, for CPP the issues relate to effects on the soil environment and carbon storage. Therefore significant protection to these mapped areas means mitigation that goes beyond standard practice. This is through thorough site investigation and careful management of sensitive locations from project inception to operational and decommissioning stages of the development.

| Preferred Option: | **Safeguard areas of carbon rich soil, deep peat and priority peatland habitat (CPP)** |
|---|---|
| **How?** | Wind energy development in areas mapped by SNH as CPP may still be possible. However, it must be clearly demonstrated that all significant effects on the qualities of these areas for which they have been mapped can be significantly overcome through siting, design or other mitigation. This includes from project inception to wind farm operation and decommissioning- including a detailed construction environmental management plan |
| **What would this mean?** | SPP recognises the SNH-mapped areas of CPP as "nationally important mapped environmental interests" and requires us to "identify and safeguard the character of [these mapped] areas". This means that any proposals brought forward on these group 2 areas in the Spatial Framework should be subject to greater scrutiny. These group 2 areas are not promoted as 'areas with potential for wind energy development' (Group 3 in the Spatial Framework). Mitigating any significant effects on the qualities of these areas should be prioritised and they will be scrutinised to a greater degree than would normally be undertaken through the Environmental Impact Assessment process. The EIA process already provides a robust framework to achieve this. |
| **Q:** | **Do you agree with this option?** |
| | **Alternative: Should there be a presumption against development in areas of CPP?** |

**Electricity Transmission Cables and Lines and Gas Transmission Underground Pipelines**

110. An appropriate separation distance is required for in vicinity of electricity transmission underground cables, overhead lines and underground gas transmission pipelines. The proposed turbines need to take account of factors beyond the immediate wayleave by providing sufficient distance to safeguard the infrastructure and a sufficient operation and maintenance distance. Also other parts of the proposal or activities which the developer intends to undertake may trigger need for consultation with the relevant grid company and developers are therefore advised to consult the relevant grid company for further advice on whether the work they are intending to undertake has the potential to affect their infrastructure. Developers are also strongly advised that they should obtain their written consent prior to submission of the planning application.

**Impacts of Other Proposed Developments on Existing or Consented Windfarms**

111. It will be necessary to consider the potential impacts of other proposed development or land use change on any existing or consented windfarms in the vicinity. This may include impacts on the operational efficiency of the windfarm due to potential changes to wind patterns or introduce potential conflict between

neighbouring uses which are incompatible without mitigation, for example with regard to the standards of residential amenity that can be achieved.This Supplementary Guidance will generally be read by those seeking to propose wind energy developments rather than by those seeking to propose other types of development which happen to be in the vicinity of windfarms. Therefore this consideration will also be identified within the Physical Constraints Supplementary Guidance to be prepared to supplement HwLDP Policy 30 – Physical Constraints, which is applicable to development proposals generally.

**Mitigation**

112. Where mitigation is to be provided by the developer in response to likely impacts of the development, developers should ensure that suitable mitigation will be available throughout the lifetime of the development and the Council will require arrangements to be in place to secure this. Mitigation may include both on-site and off-site measures, which may be covered by management plans, and will be secured where appropriate by planning conditions or by Section 75 Agreements.

**Repowering**

113. The Council supports the principle of repowering in appropriate circumstances. SPP outlines that “areas identified for wind farms should be suitable for use in perpetuity”. Repowering schemes are treated as new planning applications and are therefore assessed on a case-by-case basis, taking into account all of the relevant factors set out in this guidance. However, the site’s existing use as a wind farm will be a material consideration in deciding an application.

## Issue 10: Repowering

114. The Council supports the principle of repowering schemes. SPP highlights that “areas identified for wind farms should be suitable for use in perpetuity” and that the presence of an existing wind farm is a material consideration that establishes the principle of suitability of a site.

| **Preferred Option:** | **Support the principle of repowering** |
|---|---|
| **Why?** | The current use of a proposed site as a wind farm is a material consideration in deciding applications for repowering. We think this principle needs clarified in the guidance. |
| **How?** | Add a brief section on repowering |
| **Q:** | **Do you agree with this option?** |
| | **Are there any alternatives you would like to suggest?** |

# Section 5: Smaller scale wind energy proposals

115. Before using this section of the guidance, wind energy proposals should be checked to confirm they comply with the Council's definition of smaller scale, as set out in Table 1 on page 7.

116. There is growing interest in micro and small scale renewable energy. Reasons for this include availability of renewable energy resources; desire for green energy, security of supply and to meet own energy needs, and the opportunity for income generation, assisted for example by the Feed-In Tariff. Micro and small-scale renewables can therefore make a small but, in particular cumulatively, valuable contribution to renewable energy production.

117. Whilst the scale of potential impact of an individual small scale development is likely to be less than a large windfarm, small scale developments tend to be located closer to where people live and work and their impact on the locality can therefore be significant. The effects can be multiplied as a consequence of multiple individual developments in an area, which is challenging for the planning authority to manage.

118. Small scale wind energy can be further categorised into micro and small scale. Micro wind energy developments are defined for the purposes of this guidance where:

- only a single turbine is proposed, and
- the hub height of the turbine does not exceed 15m and its rotor diameter does not exceed 4m, and
- the installed capacity of the turbine is less than 50KW.

**Siting and Design**

119. Sensitive siting and design is important in both urban and rural areas and will play an important part in making small/ micro scale turbine installations an accepted feature of the environment. The optimum position for a turbine will depend on individual circumstances and will be influenced by the size and type of turbine and its surrounding environment.

120. When looking for a location and more precise siting for a turbine, the average wind speed at the chosen site will be an important factor, as it will determine how much energy should be produced throughout the year. The Council wishes to support renewable energy developments which are worthwhile and make a valuable contribution to meeting energy needs.

121. Developers sometimes consider removing trees in order to achieve good wind speed. Any such intentions should be made clear to the Council in discussions from the outset, as it may raise further planning issues and consent may be required before trees can be removed.

122. There are a number of other factors that should be considered when seeking to identify siting and design for a small/ micro scale wind energy development.

Section 3 outlines potential considerations. Relevant factors for small/ micro wind development are expanded on in this section.

123. There are a range of turbine manufactures on the market each of which generates different levels of noise. Each proposal will be assessed and considered where appropriate having regard to amongst other things the levels of noise generated. Section 7 of this guidance sets out information that will be required in respect of noise for turbine developments with turbine rotor diameters less than 16m; for turbines greater than this, Section 6 should be referred to. Regard should be had to the predicted impact of turbine noise when selecting a site for turbine(s) relative to noise sensitive locations like neighbouring houses.

124. Careful consideration should be given to the height of the turbine. While it is desirable to avoid undue turbulence and areas of low wind speed, the choice of height needs to be carefully balanced with the visual prominence of the turbine in relation to existing buildings and surrounding landscape features.

125. Where possible the height of towers should relate to the height of existing vertical elements in the landscape such as light columns, telegraph poles, trees, buildings and other structures.

126. Consideration may be given to choice of turbine colour in seeking to minimise adverse visual impact.

127. A turbine sited on a prominent ridge is generally not desirable in terms of its landscape and visual impact.

128. In preparing and considering proposals for small-scale wind turbine schemes it will be relevant to consider potential impacts not only on other existing land uses in the area (including neighbouring properties) but also on planned developments in the area which have yet to be built. This includes those with planning permission and those not having permission but which are allocated developments or are within the Settlement Development Area in the Local Development Plan. This is likely to be particularly relevant in respect of small-scale wind turbine proposals which, by comparison to large windfarms, are often located relatively close to where greater numbers of people live and work and where developments occur.

129. The cumulative impact (which includes but is not limited to landscape and visual impact and impact on residential amenity) of an increasing number of wind turbines within a locality is a matter to which the Council will pay close attention and prospective developers should give careful consideration. This impact will vary from case to case and will involve individual assessment on its merits. Guidance on this aspect will be provided by the Council in its Pre-application Advice Service.

**Financial Involvement**

130. As an **exception** the Council may permit a development which is predicted to result in a higher level of noise at a property (than would normally be regarded as acceptable) where the occupant has a direct financial involvement in the development. For financial involvement to be applicable the person must play an active and direct part in the development. Site specific noise assessment will

enable the Council to specify a minimum separation distance which the Council will require to be maintained between a proposed turbine and both existing and future dwellings in the vicinity. The Council may therefore **exceptionally** consider a relaxation of this separation distance and noise levels in respect of a dwelling which is occupied by a person with an ongoing financial involvement in the wind turbine(s).

**Preparing Proposals**

131. All proposals for the installation of a small scale wind turbine will require approval from the Council either through the prior notification process or a planning application. Engaging in pre-application discussion will help avoid delays during the application process and will identify any problems/issues with proposals at an early stage. Further information concerning the Pre-Application Advice Service is available on our website at:

http://www.highland.gov.uk/yourenvironment/planning/planningapplications/PreAppAdviceService.htm

132. Anyone wishing to install a wind turbine should therefore speak to the local planning office of the Council at an early stage in the development process, in order to find out:

- whether or not the proposed development will require Environmental Impact Assessment (as a first step the prospective developer should therefore seek a screening opinion from the local planning office, an EIA screening opinion request form can be accessed from
- http://www.highland.gov.uk/yourenvironment/planning/planningapplications/applyforplanningpermission.htm );
- whether or not the proposed development is covered by 'Permitted Development Rights' (a permitted development form can be accessed from http://www.highland.gov.uk/yourenvironment/planning/planningapplications/DoIneedPlanningPermission.htm );
- what type of application will therefore require to be submitted to the Council;
- what information should be submitted as part of the application.

**Planning applications**

133. Applications for planning permission or for prior notification/prior approval can be made online through the ePlanning Portal; alternatively the respective application forms and guidance notes are available from Council Offices and can be downloaded from:

http://www.highland.gov.uk/yourenvironment/planning/planningapplications/applyforplanningpermission.htm

This Supplementary Guidance should be read in conjunction with the relevant application form and guidance notes when preparing a proposal for submission.

134. In the case of applications for planning permission for wind turbine(s), please note that applications for Planning Permission in Principle will not be encouraged as detailed information is required for the assessment of such applications.

135. The following are the minimum requirements for applications for planning permission or for prior notification/prior approval in respect of wind turbine(s), and in the case of Full Planning Applications their validation is dependent upon these requirements being met:

- The appropriate completed application form (including landowner certificate in the case of planning applications);
- Plan sufficient to identify the land to which the application relates – the application site must be outlined in red and must include all development associated with the wind turbine/s e.g. access, roads/tracks, borrow pits, transmission routes, cabins etc. Any other land owned by or within the control of the applicant must be outlined in blue;
- Plan showing the situation of the land in relation to the locality and in particular in relation to neighbouring land;
- Such other plans and drawings as are necessary to describe the development; and
- The appropriate fee, which is as follows:
    - In the case of planning applications – development involving wind turbines is classed as the erection, alteration or replacement of plant or machinery and the planning application fee is £401 for each 0.1ha of the site area, subject to a maximum of £20,055 (fees at February 2015).
    - In the case of prior notification/approval applications – £78 (fees at February 2015).

136. In order to avoid delays, applicants are requested to submit the following at the time of submission of the application as this information is required to enable us to assess the application:

- Make, model, output and tower height of the proposed turbine(s);
- Elevation drawings of the turbine(s);
- Visual assessment/visualisations (incl. photos of the site from primary view points e.g. roads, paths etc.); and
- Noise assessment/information where required by and in accordance with the details contained in Section 7.

**Further Submissions Required for Planning Applications in Certain Cases**

137. Advert fee – We are required to place a notice in a local newspaper where there are no premises on neighbouring land to which a neighbour notification can be sent. The advert fee is £100 and we will advise if this is required (fees at August 2012).

138. A Design Statement must be submitted with planning applications for wind turbines which are located within: a world heritage site; a conservation area; a historic garden or designed landscape; a national scenic area; a site of a scheduled monument; or the curtilage of a Category A listed building.

139. **It should be noted that the above is not exhaustive as requirements for additional information vary on a case by case basis. You are advised to seek pre-application advice so that any additional requirements can be identified at an early stage.** For example you may need to carry out surveys, assessments or consultations for potential impacts on designated areas (such as European nature conservation sites), species and habitats, the water environment, peatland, landscape, aviation and defence interests or in terms of shadow flicker or flood risk. You may also be required to prepare plans for environmental management or mitigation in relation to the impacts of your development. We may refer you to other policy or guidance of the Council and/or that of external national organisations, such as those referred to elsewhere in this document.

140. Environmental Impact Assessment (EIA) – Environmental Impact Assessment (EIA) is designed to identify the likely significant environmental effects of certain types of development, before planning applications are determined. This helps us to understand the predicted environmental effects of a proposal and to identify the potential for reducing, avoiding or offsetting any adverse impacts, before a planning application is determined.

141. All proposals for wind turbines within the following 'sensitive areas' require to be screened for the need for EIA: Sites of Special Scientific Interest; Land subject to Nature Conservation Orders; International Conservation Sites; National Scenic Areas; World Heritage Sites; Scheduled Monuments; National Parks.

142. Proposals for wind turbines not located within 'sensitive areas' which involve more than 2 turbines, or where the hub height of any turbine or height of any other structure exceeds 15m also require to be screened for the need for EIA.

143. Screening for the need for EIA should be carried out prior to the submission of a planning application. Further information can be obtained from your local planning office.

144. Where screening determines that an EIA is required, the EIA should be subject of a scoping to identify the matters to be covered in the Environmental Statement. This will help to ensure that the EIA carried out is fit for purpose, relevant and proportionate.

145. It should be noted that proposals for any wind turbine which requires EIA will require submission of a planning application and is not permitted development. The planning application should be accompanied by the Environmental Statement. Also it should be noted that a higher advert fee is required for an application accompanied by an EIA.

**Permitted Development for Domestic Wind Turbines**

146. For the purposes of this guidance, a wind turbine is considered to be domestic where it falls within the definition below.

Definition of a Domestic Wind Turbine

A wind turbine is considered to be domestic where:

- its primary purpose is to power a domestic property;
- its total installed capacity is not more than 6KW; and
- the annual output of electricity exported to the grid does not exceed the total energy requirements of the domestic property by more than 25%.

147. Class 6G of the Town and Country Planning (General Permitted Development) (Scotland) Order 1992 (as amended) provides for the installation, alteration or replacement of a free standing wind turbine within the curtilage of a dwelling in certain cases without the need for a planning application. One of the conditions that must be met is that the turbine is used only for the purposes of producing electricity or heat for domestic consumption using microgeneration equipment. However development is not permitted under the Order and a planning application is required if –

- it would result in the presence within the curtilage of a dwelling of more than one free standing wind turbine; or
- the wind turbine would be situated less than 100m from the curtilage of another dwelling; or
- the site is located within: a conservation area; a world heritage site; a site of special scientific interest; a site of archaeological interest; or within the curtilage of a listed building.

148. Wind turbines attached to buildings have no permitted development rights and therefore require planning permission.

149. Wind turbine proposals which are permitted development do however require the submission of an application for prior notification in respect of the design and size of the proposed wind turbine, and a determination as to whether our prior approval is required in respect of the siting and external appearance of the turbine.

**Visualisation assessment for small scale turbines**

150. The following guidelines outline when we will require visualisations to be lodged in support of proposals for small-scale wind turbines.

151. There may, however, be occasions where applications fall outwith the below criteria, but visualisations are nonetheless considered necessary; you are therefore advised to seek guidance from the relevant Local Planning Office at an early stage prior to submitting a planning application.

152. In all cases where visualisations are required, they must comply with the Council's Visualisation Standards for Wind Energy Developments. Scottish Natural Heritage's visualisation guidelines should also be referred to.

153. Visualisations will be required in support of proposals for small-scale wind turbine(s), if:

- two or more turbines are proposed; or
- the hub height of the turbine would exceed 15m, measured from the ground to the uppermost point of the hub; or
- the turbine(s) would be located within a 'Sensitive Area'[1] (being Sites of Special Scientific Interest; Land subject to Nature Conservation Orders; International Conservation Sites; National Scenic Areas; World Heritage Sites; Scheduled Monuments; National Parks) or, in terms of local/regional landscape features, a Special Landscape Area (SLA), Wild Areas or an area designated as having important Views Over Open Water; or
- the turbine(s) would be located outwith the 'Sensitive Areas' and local/regional landscape features listed above, but could have significant impact on their safeguarded interests where relevant in terms of landscape and views;
- the turbine(s) would be located within, or within the general visual envelope/setting of, a Conservation Area or Category A listed building.

154. Applicants will be expected to provide a Zone of Theoretical Visibility (ZTV) for their scheme at an early stage, which will help to identify the requirements for visualisations and ensure that the requirements are relevant and proportionate to the particular case, including an appropriate set of viewpoints being identified.

155. To enable assessment of the potential cumulative impact of the proposal, visualisations should in particular include all other relevant wind turbines, be they existing, consented or subject of an application yet to be determined. Where cumulative impact is likely to be a significant issue to determination of the proposal, additional visualisations may be required.

[1] 'Sensitive Areas' as defined in section 2 of the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011.

# Section 6: Noise assessment for turbine rotor diameter above 16 m

## Scope

156. This advice note applies to wind farms and large individual wind turbines i.e. those with a rotor diameter greater than 16m. The following documents are recognised as representing best practice in terms of the procedures to be followed in assessing wind turbine noise: -

- ETSU-R-97 The Assessment & Rating of Noise from Wind Farms *(hereafter referred to as ETSU).*
- A Good Practice Guide To The Application Of ETSU
    - *(hereafter referred to as GPG)*

- Supplementary Guidance Notes to the GPG
- SGN 1: Data Collection
- SGN 2: Data Processing & Derivation of ETSU-R-97 Background Curves
- SGN 3: Sound Power Levels
- SGN 4: Wind Shear
- SGN 5: Post Completion Measurements
- SGN 6: Propagation Over Water

157. However, in some areas the guidance leaves some issues to interpretation and opinion. The aims of this document are to help clarify any ambiguity in these areas and to ensure that sufficient information is provided with each planning application.

## Required Information

158. Applications must include the following information: -

- A map showing the proposed position of turbines (including grid references) and all noise sensitive receptors (NSR) within 3km of any turbine. This includes all dwellings and also non-domestic property which could be adversely affected by noise such as schools, hospitals, offices etc.

- The map should also indicate the position of any existing, consented or proposed wind turbine development within 3km of any mutually affected NSR.

- **NB** It is for the Planning Authority to determine whether a property has a financial involvement in a wind farm development. The application must identify **all** dwellings and if a financial involvement claim is being made the applicant must provide details to the Planning Authority.

- The distance from each NSR to the nearest turbine.

- The make, model and mast height of the turbine. It should be made clear whether this is the actual turbine proposed for the development or a specimen used for the purposes of the assessment.

- Sound power level details for the turbine in its intended mode of operation. Broadband and A-weighted octave band data should be provided as well as the uncertainty figures used.

- The calculations of noise immission levels including details of the ground factor used and atmospheric conditions assumed and any corrections for valley effect.

- A warranty from the turbine supplier and/or manufacturer for the absence of tonality of the turbines, as determined in accordance with ETSU.

- A noise impact assessment undertaken in accordance with ETSU and the GPG and associated supplementary guidance comparing the predicted noise emmission levels with the relevant noise limit.

**Simple Assessment**

159. Where the assessment demonstrates that noise immission levels at any NSR will not exceed 35 dB LA90 (10 min) it is not necessary for the applicant to arrange for a background noise survey to be undertaken. However, if there is any likelihood of expansion or further development in the area at a later stage, it may be beneficial to have a clean background survey prior any development.

**Background/Baseline Survey**

160. Where noise immission levels are predicted to exceed 35dB LA90 (10 min) at any NSR, it will be necessary to compare the predicted noise immission levels with relevant background levels.

161. Where historical background survey results exist they may still be usable for subsequent development provided the results are still relevant to the location and the survey was undertaken in accordance with what is now accepted as best practice. Should it be necessary for compliance monitoring to be carried out at a later date, the same wind speed monitoring locations may need to be used. The applicant will need to explain how they will address this.

162. If a new background survey is required it should be carried out in accordance with ETSU, the GPG and supplementary guidance notes and the following :

163. Details of the measures taken to minimise wind induced microphone noise should be included in the survey report. The size and type of windshields must be stated.

164. The survey results must include a time history graph showing background noise levels; wind speed measurements; wind direction and rainfall.

165. Where proxy monitoring locations are to be used to represent noise sensitive receptors it should be made clear which location relates to which receptors. In most cases it will be impossible to find a monitoring location which is exactly the same as the NSRs it represents in terms of exposure to background levels. Therefore, the most conservative monitoring locations should be chosen i.e. those where background levels are likely to be the lowest among the NSRs it represents.

166. It is recommended that monitoring locations be agreed with the Council's Environmental Health beforehand. It is unlikely that an officer will be able attend the installation of the equipment. Care should be taken to ensure the monitoring site is representative of the external amenity area and is away from site specific noise sources such as flues, wind chimes, watercourses, etc. If there are any concerns at a later stage over the choice of monitoring location, the accuracy of the background survey may be called into question.

167. If it is necessary to undertake a background noise assessment at a location in proximity to an existing wind farm, the assessment must demonstrate that the existing turbines have not influenced the background levels. In general, it is not acceptable to simply discount all data from a certain wind direction as the background levels may be influenced by wind direction as well as speed.

**Daytime Noise Limits**

168. ETSU suggests an upper noise limit of 5dB above the background level with a lower limit of 35-40dB LA90 (10 min). ETSU advises that the choice of lower limit should take into account the following: -

- The number of noise-affected properties;
- The potential impact on the power output of the wind farm; and
- The likely duration and level of exposure.

169. In the Highland area the majority of rural locations where this type of development takes place will have very low levels of background noise. Therefore, in most cases it is unlikely that consideration will be given to increasing the lower limit above 35dB LA90. Where an applicant wishes to adopt a higher daytime noise limit they will be required to submit figures in relation to point 2 above.

**Night Time Noise Limits**

170. ETSU suggests an upper noise limit of 5dB above the background level with a lower limit of 43dB LA90 10 minutes. This level was based on the findings of the World Health Organisation at the time which concluded that 35dB(A) was a good target level of noise in a bedroom at night. Since then the WHO have revised this recommendation to 30dB(A).

171. In addition and as previously stated, the background levels in the majority of rural locations are very low. Allowing a limit of 43dB in such cases is likely to result in a significant impact on the amenity of residents. Therefore, Highland Council has adopted a lower night time noise limit of 38dB LA90. If the applicant wishes to adopt a higher noise limit they will need to submit a reasoned argument in support rather than simply refer to the ETSU recommendation.

**Restricted Limits**

172. In the past, wind farm developments have been conditioned with maximum permissible noise limits regardless of the actual predicted noise levels. This can result in difficulties when trying to accommodate further development in an area. Therefore, in addition to the preceding paragraphs, please note that noise limits

will be restricted to no more than 3dB above the predicted levels at each receptor.

**Cumulative Effect**

173. The noise assessment must take into account any potential cumulative noise from other existing, consented or proposed developments within 3km of a mutually affected noise sensitive property.

174. It must be noted that any consented wind farm has the right to operate up to the limits of that consent therefore, the assessment calculations should use the consented limits. The GPG does allow for these to be adjusted in accordance with the controlling property principle. Alternatively, if there is significant headroom between the predicted levels and the consented limits the GPG suggests the predicted levels can be used with a minimum safety margin. The GPG does not stipulate what safety margin is appropriate. Foir the avoidance of doubt a 3dB margin is required.

175. The cumulative noise from multiple wind farms will be required to comply with the noise limits stated in previous pargraphs. In most cases this will be achieved by ensuring that when added up, the limits applied to individual wind farms will meet this limit.

176. In the case of applications which are running concurrently, advice should be sought from the Planning Authority on the benefits of a joint approach to the noise assessment.

177. As well as the calculated cumulative level, the increase in the duration of exposure must be considered. In the case of one wind farm, any neighbouring noise sensitive property will only likely be affected when the wind is roughly coming from the direction of the turbines and there will be respite at other times. However, if a second wind farm arrives on the opposite side of the property, regardless of whether the noise levels comply with the required limits, there will be little to no respite. The increased duration of exposure may result in a significant impact particularly in areas of low background noise.

**Presentation of Data**

178. The noise levels for each location should be expressed in both graph and table formats showing the following information for each noise sensitive receptor for wind speeds up to 12m/s for night and quiet daytime periods: -

- The background noise level
- The permitted limit based on 35dB LA90 daytime; 38dB LA90 night time or up to 5dB above background
- The predicted noise immission level from the development for the intended operating mode.
- The predicted noise immission level from any other wind farm within 3km of a mutually affected NSR.
- The cumulative noise immission level from all wind farms

**Amplitude Modulation (AM)**

179. Although research is ongoing into the phenomenon of amplitude modulation, at the time of writing there is no accepted best practice for assessing or quantifying AM nor is there an accepted format for a planning condition.

180. However, the local authority still has powers to deal with noise complaints under the Statutory Nuisance provisions of the Environmental Protection Act 1990. Regardless of whether noise levels are found to comply with planning conditions, the noise could still constitute a statutory nuisance should there be a noticeable character to the noise due to amplitude modulation.

**Compliance Monitoring and Mitigation**

181. Standard Planning conditions require that in the event of a complaint, the operator must arrange for noise monitoring to assess compliance with the set limits.

182. In the case of multiple wind farms each with individual limits, it will be appropriate for compliance monitoring to first look at the cumulative levels. If these do not breach the required targets as agreed with the Planning Authority, there is no requirement to undertake further monitoring of individual wind farms. However, if the cumulative levels are breached, further monitoring will be required and the applicant should provide details as to how that will be achieved.

183. Where predicted levels are within 1dB of the noise limit, the applicant will be required to undertake compliance monitoring as a matter of course following commission of the wind farm.

# Section 7: Noise assessment for turbine rotor diameter up to 16m

184. The specific advice set out below in this technical guidance applies to applications for planning permission or for prior notification/ approval for small-scale wind turbine(s) up to a maximum rotor diameter of 16m.

185. For small-scale wind turbine proposals which exceed this threshold, a more comprehensive noise assessment in accordance with *"The Assessment & Rating of Noise from Wind Farms"* (ETSU–R-97) is likely to be required and prospective applicants are strongly encouraged to discuss proposals with the Council's officers at an early stage.

**REQUIREMENTS IN RESPECT OF APPLICATIONS FOR SMALL-SCALE WIND TURBINE(S) UP TO A MAXIMUM ROTOR DIAMETER OF 16 METRES**

**Minimum Information**

186. Applications for developments which include the installation of small-scale wind turbine(s) with a maximum rotor diameter of 16m must include the following information:

- A grid reference for the exact turbine location and the distance between this point and the nearest noise sensitive location, usually taken to be the curtilage of the nearest neighbouring property;
- The make, model and hub height of the turbine(s) proposed;
- A Declared Apparent Emission sound power level and noise slope figure for the turbine equipment. This must be derived by a competent person in accordance with Part 3 of the document *"Small Wind Turbine Performance & Safety Standard 29 Feb 2008"* published by the British Wind Energy Association (BWEA).

187. The above data will be used by the Council to assess the potential impact of noise from the turbine in accordance with the methodology described in Appendix A of the aforementioned BWEA document.

**Noise Assessment**

188. Where noise levels at the nearest noise sensitive location are predicted to be below 40dB(A) it is unlikely that noise will be an issue in determining the planning application.

189. Where noise levels are predicted to reach or exceed 40dB(A), this may require a background noise survey undertaken by a competent person to a minimum specification. (See below). The need for such a survey will be determined through early discussions with the Council's officers. If there is more than one noise sensitive location at which noise levels are predicted to reach or exceed 40dB(A), a survey will be required for each location unless the applicant can demonstrate that there are no significant local differences between the noise sensitive locations.

190. If the applicant wishes to pursue an application on the grounds that the background noise level might mask the turbine noise, they will be required to submit a background noise survey undertaken by a competent person to a minimum specification. (See below). However, the applicant should be aware that there is no guarantee that the evidence from a survey will demonstrate such a claim.

191. This is consistent with Appendix A of the BWEA document which states that

*"In general any location(s) that lie in the Red region [>45 dB(A)] are unlikely to be given planning permission. Locations that lie in the Green region [<40dB(A)] would generally be acceptable. Locations that lie in the Amber region [40-45 dB(A)] may or may not be acceptable depending on factors such as national or local planning legislation."*

**Background Noise Survey**

192. Where there is a permanent background noise source such as a river, if the applicant can demonstrate that noise levels due to the permanent background noise source measured at low wind speed will mask the calculated noise levels from the turbine(s) at any wind speed (up to the maximum 90%), wind speed monitoring will not be required. If this cannot be demonstrated then the background noise survey shall be undertaken in accordance with the document *"The Assessment & Rating of Noise from Wind Farms"* (ETSU–R-97) with the following clarifications:

- Noise monitoring should be undertaken at the location to which the noise limits apply. This will usually mean the curtilage of the nearest neighbouring residential property. If access to a property is not available, a nearby site must be chosen which is representative in terms of landscaping, locality, shelter etc.

- Wind measurements should be taken at the site of the proposed turbine.

- The background noise survey should be taken over a sufficient period of time to enable a reliable assessment of the prevailing background noise levels to be made. The actual duration will depend on weather conditions, in particular wind conditions. Measurements should be taken over a range of wind speeds up to the 90% wind speed as calculated using the BWEA document *"Small Wind Turbines Performance & Safety Standard".*

- It will be accepted that the background noise will effectively mask the turbine noise if background levels are found to equal or exceed turbine noise levels at the same wind speeds.

- Acoustic measurements should be taken in accordance with Section 1.2.1 of the Supplementary Guidance Notes to the Planning Obligation in ETSU-R-97. The survey report will be required to provide details of the methods used to prevent wind induced microphone noise.

- Wind speed and direction measurements should be undertaken in accordance with Section 1.2.1 of the Supplementary Guidance Notes to the Planning Obligation in ETSU-R-97.

- Data obtained during or immediately after periods of rainfall should be excluded from the calculations. In addition, periods affected by other transitory noises such as aircraft, dawn chorus, etc should also be excluded.

- Data should be presented in accordance with Section 1.2.3 of the Supplementary Guidance Notes to the Planning Obligation in ETSU-R-97.

## Issue 11: Noise assessment technical guidance

193. Technical guidance on noise assessments for wind energy developments were previously provided for small scale wind energy developments. We have now included guidance for two scales of turbine: turbines with rotor diameter above 16m and turbines with rotor diameter below 16m.

| **Preferred Option:** | **Include new technical guidance on noise assessment for turbines with rotor diameter greater than 16m (as set out in Section 6)** |
|---|---|
| **What would this mean?** | Two technical guidance sections on noise assessments are now included in the guidance. The section on turbines with rotor greater than 16m is new, and the section on turbines with rotor diameter less than 16m will be subject to review during this consultation |
| **Why?** | Noise assessment for turbines with rotor diameter below 16m was previously set out in the Interim Small-scale Wind Turbine Proposals Supplementary Guidance. Guidance is also required on how the Council will assess noise for turbines with rotor diameter greater than 16m |
| **Q:** | **Question 4: Do you agree with these assessment methods?** |
| | **Alternative: Are there alternatives you think we should consider?** |

**More information on the two assessment methods:**

194. The guidance document entitled ETSU-R-97 *The assessment & rating of noise from wind farms* (ETSU) is acknowledged by both the UK & the Scottish Governments as representing best practice in terms of the assessment of noise from wind turbines. In 2013 the institute of Acoustics published a Good Practice Guide (GPG) to the application of ETSU which has also been acknowledged as best practice along with the subsequent supplementary guidance notes to the Good Practice Guide. ETSU describes a framework for the measurement of wind farm noise and gives indicative noise levels thought to offer a reasonable degree of protection to wind farm neighbours, without placing unreasonable restrictions on wind farm development or adding unduly to the costs and administrative burdens on wind farm developers or local authorities. It is used by both developers and Planning Authorities in the production and consideration of noise impact assessment reports relating to wind turbine developments. However, even with the publication of the Good Practice Guide, there are some parts of ETSU which remain open to interpretation and opinion. Therefore, any noise assessment should also be carried out in accordance with The technical guidance below addresses some of these grey areas and seeks to remove any ambiguity.

195. Since ETSU was published in 1997 there have been some significant changes in the wind turbine industry, not least of which is the huge range of turbines now available from domestic roof mounted units to structures over 200m tall. While ETSU remains the recognised guidance for commercial sized turbines, concerns have been expressed that it is not an appropriate tool for assessing noise from small turbines. ETSU does not stipulate the size of turbines to which it relates however, the Good Practice Guide does state that it is aimed at turbine developments above 50kW. A significant part of the ETSU methodology relies on complicated and expensive noise and wind speed monitoring, the costs of which can run into several thousands of pounds which would render many small turbine projects unviable.

196. In 2008 the British Wind Energy Association (now Renewable UK) published its *Small Wind Turbine Performance and Safety Standard* which set out an alternative framework for the assessment of noise from wind turbines with blade diameters up to 16m in length. The aim of this guidance was to simplify the assessment process while still providing adequate protection for neighbouring noise sensitive receptors. There are a number of differences between the BWEA and ETSU methods. In basic terms, ETSU is more complex and more accurate while BWEA is more simplified but more conservative and errs greatly on the side of caution. Any noise assessment for turbines up to 16m in blade length should be carried out in accordance with the Technical Guidance on Small Wind Turbines which provides additional guidance on the use of the BWEA standard.

# Appendix 1: Sources of further information

This section of the guidance will be reviewed to ensure the most up to date sources of further information are provided.

Further information can be found on the SNH website at

http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/legalframework/habitats-directive/euro/

http://www.snh.gov.uk/planning-and-development/renewable-energy/onshore-wind/

Further information is available from RSPB:

http://www.rspb.org.uk/Images/sensitivitymapreport_tcm9-157990.pdf
http://www.rspb.org.uk/Images/sensitivitymap_tcm9-157991.pdf

A number of external national organisations have produced relevant guidance and advice relevant to the preparation and assessment of proposals for small-scale wind energy development:

SEPA: Standing advice for small scale local developments (see Appendix 1: Standing advice for small scale wind-farms below 10 MW not subject to formal Environmental Impact Assessment)

SNH: Micro-renewables and the natural heritage

SNH: Siting and design of small scale wind turbines of between 15 and 50 metres in height

SNH: Assessing the impact of small scale wind energy proposals on the natural heritage (applies to groups of three turbines or fewer)

# Appendix 2: Additional policy information

### SPP Table 1: Spatial Frameworks

<table>
<tr><td colspan="3">Group 1: Areas where wind farms will not be acceptable:<br><br>National Parks and National Scenic Areas.</td></tr>
<tr><td colspan="3">Group 2: Areas of significant protection:<br><br>Recognising the need for significant protection, in these areas wind farms may be appropriate in some circumstances. Further consideration 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.</td></tr>
<tr><td>National and international designations:<br><br>• World Heritage Sites;<br>• Natura 2000 and Ramsar sites;<br>• Sites of Special Scientific Interest;<br>• National Nature Reserves;<br>• Sites identified in the Inventory of Gardens and Designed Landscapes;<br>• Sites identified in the Inventory of Historic Battlefields.</td><td>Other nationally important mapped environmental interests:<br><br>• areas of wild land as shown on the 2014 SNH map of wild land areas;<br>• carbon rich soils, deep peat and priority peatland habitat.</td><td>Community separation for consideration of visual impact:<br><br>• an area not exceeding 2km around cities, towns and villages identified on the local development plan with an identified settlement envelope or edge. The extent of the area will be determined by the planning authority based on landform and other features which restrict views out from the settlement.</td></tr>
<tr><td colspan="3">Group 3: Areas with potential for wind farm development:<br><br>Beyond groups 1 and 2, wind farms are likely to be acceptable, subject to detailed consideration against identified policy criteria.</td></tr>
</table>

### Highland-wide Local Development Plan Policy 67 Renewable Energy Developments

Renewable energy development proposals should be well related to the source of the primary renewable resources that are needed for their operation. The Council will also consider:

- the contribution of the proposed development towards meeting renewable energy generation targets; and
- any positive or negative effects it is likely to have on the local and national economy;

and will assess proposals against other policies of the development plan, the Highland Renewable Energy Strategy and Planning Guidelines and have regard to any other material considerations, including proposals able to demonstrate significant benefits including by making effective use of existing and proposed infrastructure or facilities.

Subject to balancing with these considerations and taking into account any mitigation measures to be included, the Council will support proposals where it is satisfied that they

are located, sited and designed such that they will not be significantly detrimental overall, either individually or cumulatively with other developments (see HwLDP Glossary), having regard in particular to any significant effects on the following:

- natural, built and cultural heritage features;
- species and habitats;
- visual impact and impact on the landscape character of the surrounding area (the design and location of the proposal should reflect the scale and character of the landscape and seek to minimise landscape and visual impact, subject to any other considerations);
- amenity at sensitive locations, including residential properties, work places and recognised visitor sites (in or outwith a settlement boundary);
- the safety and amenity of any regularly occupied buildings and the grounds that they occupy- having regard to visual intrusion or the likely effect of noise generation and, in the case of wind energy proposals, ice throw in winter conditions, shadow flicker or shadow throw;
- ground water, surface water (including water supply), aquatic ecosystems and fisheries;
- the safe use of airport, defence or emergency service operations, including flight activity, navigation and surveillance systems and associated infrastructure, or on aircraft flight paths or MoD low-flying areas;
- other communications installations or the quality of radio or TV reception;
- the amenity of users of any Core Path or other established public access for walking, cycling or horse riding;
- tourism and recreation interests;
- land and water based traffic and transport interests.

Proposals for the extension of existing renewable energy facilities will be assessed against the same criteria and material considerations as apply to proposals for new facilities.

In all cases, if consent is granted, the Council will approve appropriate conditions (along with a legal agreement/obligation under section 75 of the Town and Country Planning (Scotland) Act 1997, as amended, where necessary), relating to the removal of the development and associated equipment and to the restoration of the site, whenever the consent expires, other than in circumstances where fresh consent has been secured to extend the life of the project, or the project ceases to operate for a specific period.

The Onshore Wind Energy Supplementary Guidance will replace parts of the Highland Renewable Energy Strategy. It will identify: areas to be afforded protection from windfarms; other areas with constraints; and broad areas of search for windfarms. It will set out criteria for the consideration of proposals. It will ensure that developers are aware of the key constraints to such development and encourage them to take those constraints into account at the outset of the preparation of proposals. It will seek to steer proposals, especially those for larger windfarms, away

from the most constrained areas and ideally towards the least constrained areas and areas of particular opportunity. It will also set out criteria which will apply to the consideration of proposals irrespective of size and where they are located, enabling proposals to be considered on their merits. It will seek submission as part of the planning application of key information required for the assessment of proposals and provide certainty for all concerned about how applications will be considered by the Council.