

The Highland Council

Planning, Development and Infrastructure Committee

Agenda Item	16
Report No	PDI/54/15

19 AUGUST 2015

ONSHORE WIND ENERGY SUPPLEMENTARY GUIDANCE – REVIEW

Report by Director of Development and Infrastructure

Summary

This report presents the Draft Onshore Wind Energy Supplementary Guidance (Draft SG) for approval. The Draft SG aims to provide an effective framework for guiding wind energy development in Highland. This is the result of a review of both the existing Onshore Wind Energy Interim SG and the current pattern of wind energy development in Highland, taking account of stakeholders' views gathered following the publication of a Consultation Paper earlier this year.

The Draft SG has been brought into line with Scottish Planning Policy (2014), and incorporates current best practice for assessing and managing wind energy development.

Committee is asked to approve the Draft SG, to enable public consultation to be undertaken alongside the Main Issues Report for the Highland-wide Local Development Plan. Comments received on the Draft SG will inform the final SG.

1. Background

1.1 Following approval by this Committee at its meeting on 18 February 2015, the Consultation Paper "Spatial Planning for Onshore Wind Energy in Highland" was published and consultation ran from 16 March and was extended to 22 May 2015. The Consultation Paper set out the Council's preferred approach for dealing with 11 issues and asked for views on those. The consultation was publicised through press advert, news stories, social media and emails/ letters to a wide range of contacts on our consultation database, including all Community Councils. We were invited to, and attended, Ward Forums (including joint forums) held at Culbokie, Invergordon, Farr, and Invermoriston.

1.2 To aid our consideration of the issues and comments received on them, since the close of the consultation we have:

- held a workshop with Development Management, Environmental Health, and Legal staff;
- held a workshop with Members, with input by Council and SNH staff; and
- held a series of meetings with Scottish Natural Heritage (SNH) and Development Management to work up the proposed method for

identifying strategic capacity, with particular regard to landscape and visual effects, including cumulative effects, and have begun implementing the method for the Loch Ness area.

1.3 We have also:

- responded to SNH's consultation on Carbon Rich Soils, Deep Peat and Priority Peatland Habitat (CPP);
- published an update to our online interactive wind turbine map – the data is now as at 1 June 2015 and all the approved schemes are now included (N.B. We are continuing to develop the map and a future update will include schemes that are 'in planning'); and
- responded to the Scottish Parliament Public Petitions Committee in respect of the Petition PE1564 "Save Loch Ness and the Great Glen".

1.4 SNH has finalised, and published, its document "Spatial Planning for Onshore Wind Turbines – natural heritage considerations" (June 2015). SNH has been considering comments received on the Draft CPP mapping but has yet to publish a final version. SNH has also yet to publish for consultation its descriptions of the Wild Land Areas and revised guidance for assessing the effects of development proposals on wild land. As noted above, SNH assisted with our Member Workshop, and has been working with us on developing and implementing the approach to identifying strategic capacity for windfarms.

1.5 We received around 140 responses to the consultation. Around half were from members of the public or other individuals, around a quarter were from the renewables industry, there were responses from 11 Community Councils, and the remainder were from a mixture of Government and statutory bodies, other organisations and campaign groups. This wide-ranging input to the review of our guidance is welcomed. There is considerable diversity of opinion on some issues, borne out of differing priorities and opinions, but also some shared points of view between some types of respondent. Some support the Council's preferred approach whilst others seek alternatives and/or ask the Council to better evidence, justify and explain its proposed approach.

1.6 A list of respondees is in **Appendix 1**, together with a summary of comments received, and our recommended Council response by issue. The Draft SG for Committee's consideration is in **Appendix 2**.

2. Recommended Council Response to Comments Received – Some Highlights

2.1 Issue 1: Threshold for applying the Spatial Framework

As per our preferred option in the Consultation Paper, apply the single threshold of development that the spatial framework applies to, of 50 metres and over to blade tip, and, where more than one turbine, 30 metres and over to blade tip.

- 2.2 Issue 2: Community separation distance for the Spatial Framework
As per our preferred option in the Consultation Paper, apply a 2km community separation to all settlement development areas as identified in LDPs. Beyond the spatial framework we wish to highlight through the SG that the Council considers all residential buildings to be particularly sensitive to wind energy development and therefore our expectation is that large scale developments should clearly demonstrate how potential impacts have been avoided or mitigated.
- 2.3 Issue 3: Safeguarding areas of wild land
As per our preferred option in the Consultation Paper, subject to some rewording to better reflect SPP by acknowledging that there may be opportunity for some proposals to be accommodated, whilst avoiding impacts on the wild land resource.
- 2.4 Issue 4: Identifying strategic capacity for wind energy development in Highland
As per our preferred option in the Consultation Paper, we will use a 'space and cluster' approach to identify strategic capacity. Alongside all of the suggestions of places and features received through the consultation, we will identify strategic capacity based on the areas under most pressure for development. The Draft SG sets out our proposed method.
- 2.5 Issue 5: Financial Involvement
As per our preferred option in the Consultation Paper, we recommend removing the reference to making an exception to noise limits at effected residential properties where they have a financial interest in the proposal. This can still be dealt with on a case by case basis where sought by the applicant, without specific reference in the SG which could be construed as promoting it.
- 2.6 Issue 6: Shadow Flicker
As per our preferred option in the Consultation Paper, using 11 times rotor diameter as the threshold for shadow flicker assessment, but we are minded to remove the allowance for shadow flicker effect of up to 5 minutes per day.
- 2.7 Issue 7: Road and railway considerations
As per our preferred option in the Consultation Paper, we will carry forward the requirement that each turbine be located a distance from roads and railways of at least twice the height of the turbine to blade tip.
- 2.8 Issue 8: Restoration bonds
As per our preferred option in the Consultation Paper and that the Draft SG will set out more clearly the robust process we already have in place, in advance of the outcomes of national work on this issue becoming available.
- 2.9 Issue 9: Carbon rich soils, deep peat and priority peatland habitat (CPP)
As per our preferred option in the Consultation Paper, we will safeguard CPP through a requirement for peat assessment within mapped areas of CPP and this position has been supported by SNH's recently published advice on the preparation of spatial frameworks.

2.10 Issue 10: Repowering

As per our preferred option in the Consultation Paper, acknowledge that the existing use of a site as a wind farm is a material consideration, but state more clearly that each application for repowering is submitted and assessed as a new planning application and therefore impacts of the proposals will be addressed as a matter of standard practice for a planning application.

2.11 Issue 11: Noise assessment technical guidance

Having included in the Consultation Paper the Council's existing approach to noise assessment and some additional guidance for consultation on matters such as cumulative noise assessment, we received a range of responses on these technical matters. We have also sought and received a review by an expert noise consultant of the part of our Consultation Paper that dealt with noise issues. Officers are still working on considering the comments and implications for the Draft SG. The version appended to this report therefore provides a brief position statement rather than detailed guidance on the assessment methods.

2.12 Other Issues

There were a number of other comments raised that did not relate directly to the particular issues we were consulting on, but we have considered these too. To date we have prepared the spatial framework as part of the SG, but going forward our preferred approach is to include the spatial framework within the HwLDP and feel that this will help to address concerns about clarity.

3. **Progress of Onshore Wind Energy Development in Highland**

3.1 During the year 2014-15, onshore wind energy schemes totalling 333 MW were consented in Highland, bringing the onshore wind energy total consented in Highland, as at 31 March 2015, to 1862 MW.

3.2 Since 31 March 2015, decisions have been made on a number of wind energy developments. The following provides examples for information (but is not intended as a comprehensive list):

Windfarm	Type of Application	Outcome
Hill of Nigg	Planning	Refused
Beinn Mhor	Planning	Appeal Dismissed
Glen Kyllachy	Planning	Appeal Allowed
Glen Ullinish	Planning	Approved Subject to Legal Agreement
Allt Duine	Section 36	Refused
Limekiln	Section 36	Refused
Corriegarth – ext.	Section 36	Approved
Beinneun – ext.	Section 36	Approved

3.3 As noted in the draft MIR for HwLDP, there are signs that the arrangements for subsidising renewable energy are changing and it remains to be seen what the full impacts will be, but this could lead to changes to the pressure from various

renewable energy development types. It may be noted also that, in the case of the offshore wind proposals, Beatrice Offshore Wind Limited (BOWL) was granted an investment contract by the UK government in May 2014 whereas Moray Offshore Renewables Limited (MORL) was not included in the February 2015 award of contracts to supply electricity.

4. Next Steps

4.1 The next steps proposed are as follows:

- officers complete documentation of the Revised Environmental Report, including identifying any further mitigation for inclusion in the Draft SG;
- officers work up documentation of the implementing of the strategic capacity approach for the Loch Ness area (informed by assessment of landscape and visual sensitivity), for inclusion and publication in the Draft SG for consultation as an example of what we have in mind;
- officers to add in the latest version of the draft spatial framework (for information), including reflecting the final version of the CPP mapping if it is published by SNH in time;
- officers to continue to consider comments on, and our consultant's review of, the noise assessment technical guidance with a view to updating and adding to content on this matter in the Draft SG;
- officers, in consultation with the Chair of this Committee, finalise the Draft SG documentation for consultation to take into account a), b), c) and d) above, to make any minor presentational and typographical changes considered necessary prior to publication and to add arrangements for consultation, a glossary and Gaelic headings;
- publish the Draft SG and Revised Environmental Report for consultation alongside consultation on the HwLDP MIR (which is subject of a separate report to this Committee meeting), with the same start and end dates for consultation;
- subsequent consideration of responses before the Council decides how to finalise the revised guidance; and
- progressing a programme of work for pressured sub-areas of Highland to identify strategic capacity, the information for each sub-area being consulted upon and comments considered before the information for that sub-area is finalised and adopted as an addition to the SG.

5. Implications

5.1 Resource – We have resources to revise the SG, including consultation and progression to adoption. In planning how to undertake the review, particularly the identification of strategic capacity including consideration of cumulative effects, 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 LDPs, adopted Local Plans as continued in force and adopted SG) and any other material considerations. LDPs and SG are prepared in accordance with legal requirements.

- 5.3 Equalities – Our Interim SG has previously been subject to Equalities Screening.
- 5.4 Climate Change/Carbon Clever – The SG will assist in identification of opportunities for renewable energy development, which will contribute towards Carbon Clever and responding to Climate Change. It will help consideration and balancing of positive and negative effects of development. A Strategic Environmental Assessment Environmental Report was consulted upon for the Interim SG, which noted mitigation already included. We have been taking into account comments received going forward and have been preparing a Revised Environmental Report. We will also undertake Habitats Regulations Appraisal in due course.
- 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 Draft SG complies with the Council's requirements for publications.
- 5.7 Rural – The SG covers the whole of the Highlands. The main pressures for wind energy development are in rural areas. The SG 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:

- consider the comments received on the Consultation Paper, summarised in **Appendix 1**;
- agree the Council response in **Appendix 1**; and
- agree the Draft Supplementary Guidance in **Appendix 2** for consultation, subject to also agreeing the next steps outlined in paragraph 4.1 of the report including measures for officers to complete the Draft SG documentation in readiness for publication, in consultation with the Chair of this Committee.

Designation: Director of Development and Infrastructure

Date: 10 August 2015

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Background Papers:

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

- Onshore Wind Energy Interim SG (March 2012)
- Small Scale Wind Turbine Proposals Interim SG (November 2012)
- Spatial Planning for Onshore Wind Energy in Highland - Consultation Paper (March 2015)
- Responses received to our March 2015 Consultation Paper

Council's online interactive map of Wind Turbines: www.highland.gov.uk/windmap

Council's response to SNH's Carbon Rich Soils, Deep Peat and Priority Peatland Habitat (CPP) Draft Map for Consultation: www.highland.gov.uk/consultations

Council's response to Scottish Parliament's Public Petitions Committee in respect of the Petition PE1564 "Save Loch Ness and the Great Glen":

www.scottish.parliament.uk/gettinginvolved/petitions

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 SNH's website www.snh.gov.uk :

- Spatial Planning for Onshore Wind Turbines – natural heritage considerations (June 2015)

APPENDIX 1:

**LIST OF RESPONDENTS, SUMMARY OF COMMENTS ON ISSUES AND
RECOMMENDED COUNCIL RESPONSE**

A. List of respondents by organisation type, name and organisation:

Note: Not all respondents commented on all of the issues in the Consultation Paper.

Customer Type	Name
Campaign Group	Stop Highland Windfarm Campaign
Campaign Group	Strathnairn Action Group
Campaign Group	Save Our Dava
Campaign Group	Scotland Against Spin
Campaign Group	Friends of the Great Glen (Save Loch Ness)
Charity/ Club/ Third Sector Organisation	John Muir Trust
Charity/ Club/ Third Sector Organisation	RSPB Scotland
Charity/ Club/ Third Sector Organisation	Mountaineering Council of Scotland
Charity/ Club/ Third Sector Organisation	Scottish Wildlife Trust
Charity/ Club/ Third Sector Organisation	Helmsdale and District Development Trust
Charity/ Club/ Third Sector Organisation	Scottish Endurance Riding Club – Highland Branch
Charity/ Club/ Third Sector Organisation	North East Mountain Trust
Community Council	Avoch and Killen Community Council
Community Council	Brora Community Council
Community Council	Ferintosh Community Council
Community Council	Nigg and Shandwick Community Council
Community Council	Ardross Community Council
Community Council	Fort Augustus & Glenmoriston Community Council
Community Council	Sleat Community Council
Community Council	Kincraig Community Council
Community Council	Kyleakin Community Council
Community Council	Aviemore Community Council
Community Council	Tarbat Community Council
Government or Statutory Body	Development Management Team, THC
Government or Statutory Body	Transport Planning Team, THC
Government or Statutory Body	Scottish Government
Government or Statutory Body	Transport Scotland
Government or Statutory Body	Ministry of Defence
Government or Statutory Body	Cairngorms National Park Authority
Government or Statutory Body	Scottish Environmental Protection Agency

Government or Statutory Body	Scottish Natural Heritage
Industry	Jones Lang LaSalle Ltd, representing: EDF; RWE; Shian Hill WF; Infinergy; European Forestry Resources Group; Altnaharra Estate & Creag Riabach WF
Industry	WYG
Industry	Scottish Power Renewables
Industry	Jones Lang LaSalle Ltd, representing: SSE
Industry	Jones Lang LaSalle Ltd, representing Glenmorrie Wind Farm LLP
Industry	Scottish Renewables
Industry	Vattenfall
Industry	Airvolution Energy Limited
Industry	Force 9 Energy
Industry	Atmos Consulting Ltd
Industry	Arup
Industry	RES UK Ltd
Industry	Sub Sea 7
Industry	Peel Energy
Industry	Whirlwind Renewables
Industry	Muirhall Energy
Industry	ABO Wind UK Ltd
Industry	Coriolis Energy
Industry	Partnerships for Renewables Development Company Ltd
Industry	Hoolan Energy
Industry	West Coast Energy, GDF Suez
Industry	Eneco
Industry	Wind Prospect Developments
Industry	Natural Power
Industry	Wind Harvest International
Industry	The Abbey Group
Other Organisation	Network Rail
Other Organisation	SportScotland
Member of the Public & other individuals	77 members of the public and other individuals also responded
The Council's Noise Consultant	Dick Bowdler – Acoustic Consultant

B. Summary of Consultation Paper comments and recommended Council response

Note: This is organised by 'issue', as in the Consultation Paper. Comments on 'other issues' are addressed after issue 11.

Issue 1	Apply a single threshold for development that the Spatial Framework applies to: turbines 50m to blade tip and above, and where more than one turbine, 30m to blade tip and above.
Summary of the comments received:	
<p><u>Campaign Groups</u></p> <ul style="list-style-type: none">• The spatial framework should apply to all scales of onshore wind energy, including single and small turbines. This is due to greater demand for single and small turbines and the visual impact being exacerbated by the variety of different turbine heights, designs and movements.• Another category should be added to assess 'tall turbines' (e.g. over 125m) as there appears to be a trend towards larger turbines <p><u>Charities/ Clubs/ Third Sector Organisations</u></p> <ul style="list-style-type: none">• General agreement with the thresholds set out in the preferred option.• It is essential that the Council maintains and publishes both numerical and mapped data on turbine numbers in the categories of operational, approved/consented, in planning and in scoping as this information is fundamental to effective spatial planning• The threshold should be set at 30m and any proposal for more than one turbine above 30m should be assessed fully in line with the Spatial Framework. This is a simple and straightforward approach. It should also be recognised that in some circumstances turbines below 30m will either raise cumulative issues or contribute to cumulative effects <p><u>Community Councils</u></p> <ul style="list-style-type: none">• General agreement with the thresholds set out in the preferred option. Some concern over how relevant it will be when turbine designs change over time.• Support for a 'very large' category, e.g. 150m+ or 50+ turbines. <p><u>Government or Statutory Bodies</u></p> <ul style="list-style-type: none">• THC Development Management team agree with the threshold, but for Caithness consider the threshold is overly generous given the relatively flat landscape of and potential visibility impacts. Requests that 'larger' scale reduced to 30m+ for all proposals - no matter the number of turbines involved. This means that 30m would be the determining height between small and larger development scales. <p><u>Industry</u></p> <ul style="list-style-type: none">• General support for the proposed threshold.• Several respondents who did not support the threshold raised the following issues: it is confusing and ambiguous; it is a barrier for relatively small scale community wind energy projects; extensions to existing schemes would likely be included.• Although the threshold is arbitrary it could provide clarity but it must recognise the benefits of clustering turbines in certain areas.• SPP requires a spatial framework for development planning and not used as a proxy for development management. This means it is less relevant for thresholds and proposals will be determined on their own merits.• Support for the guidance covering both large and small scale turbines as they can both	

impact on the viability of larger schemes and this is needed to ensure maximum output.

- Several respondents stated that no justification has been given for the preferred threshold. This should be clearly publicised for further consultation.
- Including the smaller 'scale' within a table but not apparently applying the spatial framework criteria to this lesser scale of development is confusing. It would be clearer to apply a single threshold to the scale of development to which the spatial framework will apply. Then identify areas of strategic capacity – whereby larger scale and repowering development could be prioritised over smaller scale development. Further guidance could be provided relating to the assessment criteria for different scales of development through the development management process.
- Some support for a framework which allows for each proposal to be assessed on their own merits.
- Worked examples of the process would be useful.
- Scottish Government classifies a wind farm as 3 or more turbines.
- Alternative options include: creating an intermediate category; introducing a vertical axis turbine category as the visual impacts should be treated differently; introducing the ability for applicants to make the case for their proposals to be categorised as smaller based on the specifics of the site; aligning the threshold with the EIA screening (i.e. 15m+ to hub height); setting the threshold at clusters of 3 turbines+ at 50m+; threshold should be set at 1 turbine+ and 30m+ which reflects SPP and the two National Parks; 80m+ and 2 or more as it is recognised that turbines are increasing in size over time; align it with SNH (small scale is up to 3 x 50m turbines) as this will encourage community projects.

Member of the Public & other individuals

- General agreement with the preferred threshold.
- Several respondents suggest a further threshold and cluster category should be considered for very large turbines.
- Alternative suggestions include: one single scale for all applications to ensure all proposals are assessed fully and transparently; threshold for smaller scale should be 10m+ or 20m+; include a category for geographical areas which have existing issues with cumulative impacts; tighter threshold with small scale not supported within Group 1 and large scale not supported within Group 2; the single-turbine threshold should be reduced to 30m+ when there is another 30m+ turbine (operational or consented) nearby

Recommended Council response to comments received:

All comments have been noted and taken into consideration in the preparation of the Draft SG, and elsewhere where relevant. The following is a summary of that response:

1. The preferred threshold for the Spatial Framework provides clarity and confidence to all stakeholders. Previous attempts to create multiple thresholds using multiple scale indicators (e.g. tip height, rotor hub height, generating capacity etc.) have not proven successful as technologies have changed. They have also introduced unnecessary confusion to the decision-making process.
2. Including the Spatial Framework in the Draft SG could be confusing and does not help to provide clarity about what parts of the guidance apply to what scale of development. The preferred approach now therefore is to place the spatial Framework in HwLDP (see HwLDP MIR-subject of a separate report to this committee), and structure the Draft SG to set out the considerations all developments have to make.
3. The single threshold approach enables THC to deliver a strategic vision for wind energy development at the larger scale. It also offers flexibility for smaller scale, albeit that all scales of development will be required to take into account the considerations set out in the Draft SG, undertaking proportionate assessment where relevant.
4. Two emerging work streams that address a range of concerns respondents have about directing future development (including extensions and repowering) and ensuring decisions

are based on the most up to date information are set out below:

- THC continue to update its web-based mapping of all turbines, available [online](#)
- THC is currently preparing its methodology for identifying strategic capacity for wind energy in Highland- the approach is set out in the Draft SG for consultation. This method will also address issues around repowering and clustering in pressure areas for wind energy development.

Issue 2**Apply a 2km community separation distance to all communities with defined boundaries in Local Development Plans****Summary of the comments received:**Campaign Groups

- Various suggestions for extensions to the separation distance.
- Definition of a 'settlement' must be extended to include all settlements not just larger towns/villages with SDAs.
- 2km separation for all residential properties.
- No mitigation or other factors, such as topography, should influence the 2km minimum separation.

Charities/Clubs/Third Sector Organisations

- Supportive of the maximum 2km distance.
- No reference to dispersed settlements which also need protected.
- The guidance should be as specific as possible on the circumstances that would have to apply before wind turbines were permitted within this 2km area to provide certainty to communities.
- The guidance should explain how the criteria in Table 3 will be applied to the decision making, e.g. failing to meet one of the criteria will result in a presumption of refusal/objection.
- Cross reference with Policy 57 creates confusion. It needs to be clearer as to the relationship which exists between Policy 57 and Policy 67.

Community Councils

- Several respondents wish to see the separation greater than 2km.
- LDPs are identifying far less settlement boundaries than previous plans. Either more settlements need to be identified in LDPs, the definition of settlements should be amended or assurances should be given as to this not impacting on settlements not in LDPs.
- The 2km separation must be a requirement for all residential properties. Also all Group 3 areas.
- Required separation distance should increase according to the height and visibility of the wind turbines.

Government or Statutory Bodies

- Applying the maximum community separation area for consideration of visual impact is unlikely to provide a wholly accurate or meaningful steer to prospective developers on where opportunities might be. Recommend refining separation distances for settlements.
- Concern over the reduction in defined settlements in forthcoming LDPs and the impacts on populous areas not having this protection. Also queries as to housing groups such as those shown in the Caithness LP Appendix IX.

Industry

- Many respondents disagree with the preferred blanket approach of applying the 2km maximum separation as it does not comply with SPP which requires that "the extent of the area will be determined based on landform and other features". Individual applications must be determined on their own merit. Scottish Government "Onshore Wind – Some Questions Answered (December 2014)" suggests a methodology which should be followed by the Council. If the Council does not have the resources to properly assess each boundary then it should be a matter for assessment in individual development proposals.
- No justification as to whether the blanket 2km community separation is appropriate. It is

also not reflective of SPP as it makes no provision for topography, intervening landform, forestry etc.

- Reference to separation on Page 12 is contradicted by that on Page 19 which assess proposals within the 2km buffer on a case by case basis.
- Alternative would be to introduce a smaller separation distance where no applications would be supported, e.g. 500 metres.
- Rewording requested to reflect positive and negative effects/impacts.
- The guidance should confirm the degree of visibility that would be acceptable. It should be clearly defined and justified.
- Method of assessment should also be included, e.g. which point does the buffer start from – edge of settlement boundary? Centre point of the settlement?
- Setting the maximum 2km distance may raise the expectation of communities that this is a fixed boundary, even though the Council may accept smaller boundaries in some circumstances. Group 2 areas shown only due to settlement buffers will come under considerable pressure. The buffer should be refined and justified.
- Development Management officers will be less inclined to assess and amend separation distances if the maximum 2km is set.
- Suggests that 1.5km is more suitable as it is a fairly standard distance across the UK.
- Para 3.4 (referring to Policy 57) is unhelpful and should be deleted.
- Requirement for assessment of secondary developments is impracticable as they are often only known as the proposals progress.
- The separation distance is correct but the threshold at which it is applied is too low.
- The phrases “quantity and quality of public access” and “amenity of sensitive locations” as included in Table 3 are ambiguous and need to be defined.
- VAWT should have an exemption to the specified distance as it is substantially quieter than HAWT.

Member of the Public & other individuals

- Required separation distance should increase according to the height and visibility of the wind turbines.
- General agreement that the 2km buffer should be the minimum with many suggesting it should be even greater due to visual and noise impacts and uncertainty regarding impacts on human health.
- The term ‘settlement’ needs to be properly defined as it is currently creating confusion and worry amongst communities out with Settlement Development Areas.
- The definition of a settlement should extend down to very small rural communities and even all residential properties. Crofting communities are dispersed by nature and should be protected.
- Suggestion that there should be a minimum separation distance of 1km from individual houses.
- A degree of flexibility is still required.
- Required separation distance should increase according to the height and visibility of the wind turbines.
- In Scandinavian countries distances can be much less, often within boundaries.

Recommended Council response to comments received:

All comments have been noted and taken into consideration in the preparation of the Draft SG, and elsewhere where relevant. The following is a summary of that response:

1. SPP limits the community separation distance to only those settlements with a defined boundary in Local Development Plans. It also limits the extent of the distance to a maximum of 2km. The preferred approach follows these requirements and provides clarity for stakeholders. However, it does not refine boundaries based on topography and other features that may influence (decrease) its extent. In the Draft SG, this is justified, stating that within 2km, large-scale applications will be assessed on a case-by-case basis. This

means that local site-specific factors including screening from vegetation, landforms etc. (that it would not be possible to map at the Highland scale) and development factors (e.g. turbine dimensions) can be taken into consideration in the context of individual planning applications.

2. It is important to note that the community separation distance is not a blanket ban on wind energy development. Rather it is a Group 2 Area in the Spatial Framework, meaning that for those development scales to which it applies, these areas are to be afforded significant protection. In practice what this protection is may vary between individual proposals, locations and developments. Subject to all other considerations set out in the Spatial Framework and Draft SG, there may be some scope to accommodate development within this separation distance.
3. The most pressured areas for wind energy development will be addressed through identifying strategic capacity, as set out in the Draft SG.
4. Beyond the spatial framework we wish to highlight through the SG that the Council considers all residential buildings to be particularly sensitive to wind energy development and therefore our expectation is that large scale developments should clearly demonstrate how potential impacts have been avoided or mitigated.
5. In identifying strategic capacity, the Council are currently considering how to use Council Tax Points data as one of several tools to consider and assess effects of development on communities.

Issue 3**Safeguard areas of wild land by setting out approach for development proposals****Summary of the comments received:**Campaign Groups

- All wild land (including those not mapped by SNH) should be protected from wind farm development to take into account green infrastructure and ecological connectivity.
- Any mapping of boundaries should be presented and described as fuzzy to reflect the uncertainty of the areas when they are defined primarily by desktop analysis
- 'Significant Effects' should be defined.

Charities/ Clubs/ Third Sector

- Criteria set out in Plan policy are adequate to make decisions on planning applications.
- Support for the approach, but highlighting the need to consider effects of developments outwith wild land areas impacting on them, as well as other important features like NSAs- respondents support the safeguards for some of these in the Consultation Paper.
- The identification of wild land areas failed to consult or take account of local communities that live, work on and manage the land.

Community Councils

- Supportive of safeguarding wild land, but opportunity should be given to local communities to identify areas of land for protection.
- It is not appropriate to use mitigation of other visual detractors (e.g. redundant fencing) to offset effects of wind farm developments. No wind energy development should take place in wild land areas, including tracks and associated infrastructure.

Government or Statutory Bodies

- Supportive of approach but the statements should be worded in a positive way. Currently they are negative and not clear enough. More positive wording about opportunities for development in areas of wild land is needed that reflects the wording in SPP, and setting out that it is only mapped areas of wild land that the approach refers to, not relative wildness of areas.
- Extent of wild land areas in Highland are pushing areas with development potential closer to the places people live and to coastal areas. True wild land, like coastal cliffs, are not recognised and this is constraint of the national approach.
- Reference should be made to THC's major pre-application advice service, which is the most efficient way for developers and key agencies to engage with the Council regarding their proposals from an early stage.

Industry

- Welcome that wild land areas are not considered an absolute constraint, but policy wording (in this section and others) should be in line with SPP and HwLDP Policies- taking into account other criteria, like net economic impact, contribution to renewables targets, effects on greenhouse gas emissions etc.
- Consultation Paper preferred approach is overly negative and restrictive to wind energy development, where areas of strategic capacity will be severely limited, creating a situation where meeting renewables targets is increasingly limited.
- Alternative approach should state that 'effects of wild land areas from development outwith them will be taken into account in judging the acceptability of individual developments, rather than the wording used, which in effect forms a buffer around mapped areas. An

example of an approach for designations could be at Par. 3.6 of the consultation paper. Another suggestion was to word the policy to allow for site-specific assessment of strengths of wildness attributes in the locality and the potential for effects on the wild land area as a whole.

- Objection to the approach based on it being premature in taking account of the results of the SNH consultation on wild land area assessment guidance.
- Only effects assessed through EIA to be significant should be required to demonstrate mitigation- for wind farms in wild land areas, this includes reducing turbine numbers and careful siting and design- as set out in the Scottish Governments' online Q&A on onshore wind.
- The current requirements for EIA in combination with wild land assessment are sufficient to assess impacts on wild land, no further policy restriction is required.
- There should be a Highland-specific explanation of the context of Wild Land, since it covers such a large proportion of the region. In the context of changing financial incentives for onshore wind development, it is essential that policies are not overly restrictive.
- The method to identify wild land areas included consideration of buffers and therefore no additional buffering is required, since those areas on the outside of wild land area are not necessarily those of high wildness.

Member of the Public & other individuals

- Buffers should be established and be absolute or as dictated by ecological or topographical features. A range of buffers suggested from 5km up to 50 miles.
- No windfarms should be acceptable where the landscape is not industrialised.
- Wind farms can deliver multiple social, community, economic and other benefits. Such opportunities are drastically restricted by the policy approach to wild land areas, since there is a lot of wind energy potential in some wild land areas.
- Schemes outwith but with potential to impact on wild land areas should be considered, whilst some respondents suggest they should be deemed unacceptable.
- National and local needs must be taken into consideration when arriving at decisions. Including economic needs, e.g. tourism and potential impacts from wind farm development.
- Other ecologically important species and habitats outwith wild land should be safeguarded from impacts of development and local communities and environmental experts fully consulted.
- SNH definitions need to be revisited.
- An alternative, holistic approach using community-led landscape visualisation consultation should be undertaken.
- An approach that safeguards wild land areas should be careful not to redirect development to other areas, increasing the pressure and impacts in those areas.
- Some wild land is not in fact wild, and this should be recognised in the guidance.
- Associated infrastructure and access tracks should be included in considering wind farm impacts on wild land.
- Filling gaps between safeguarded landscapes (e.g. wild land areas and NSAs) risks the integrity of these important landscapes.
- Wild land areas should be identified as Group 1 areas in the Spatial Framework.
- There is no wild land in Highland, only land cleared of people.
- Areas of wild land that include plantation forestry or other human land uses should not be considered as wild, buffering around wild land should not be greater than 5km. Some hillwalkers find plantation forestry more intrusive than turbines.
- Small scale wind energy development should not be stymied by safeguarding, as it may be essential to the sustainability of the area.
- Designated sites should take priority over wild land areas, which should not create a situation where designated sites (e.g. Natura) are increasingly compromised.

Recommended Council response:

All comments have been noted and taken into consideration in the preparation of the Draft SG, and elsewhere where relevant. The following is a summary of that response:

1. The 'Key Development Plan Considerations' section of the Draft SG address all natural environment assets, and in doing so seek to safeguard the ecological connectivity and green network assets of Highland.
2. Reference to SNH Maps in the draft SG is to those cited in SPP, which are the boundaries required by the Spatial Framework. In the Draft SG the reader is encouraged to refer to the most up to date SNH guidance for assessing impacts on wild land.
3. The revised approach to wild land areas set out in the Draft SG is reworded to better reflect SPP by acknowledging that there may be opportunity for some proposals to be accommodated whilst avoiding impacts on the wild land resource. The introduction of the SG sets the wider context of balancing economic, wider strategic environmental, and local environment and landscape considerations.
4. The methodology used by SNH to identify wild land areas will be referred to in the Draft SG to highlight the method, and give more context to the mapping in SPP.
5. For smaller scale wind energy developments as defined by the threshold in the Draft SG, the Spatial Framework does not apply. The Draft SG sets out the expectations that all proposals should take into consideration a wide range of features, such as Natural Sites, National Scenic Areas etc.

Issue 4a**Seek people's views to identify areas of cumulative effect****Summary of the comments received:**Campaign Groups, Charities/Clubs/ Third Sector Organisations (and some Members of Public/ Landowners' comments where similar)

- There are cumulative impacts on tourism and recreation interests that are not considered in the consultation paper
- Strathnairn, The Great Glen and Loch Ness area including the Monadhliath Range are highly sensitive to development and bring multiple benefits to Highland, including tourism that must be safeguarded from adverse impacts of development. Several specific points were raised:
 - Unique, sensitive and pristine natural environment
 - Mental and physical health of local communities constantly challenging planning applications
 - An implied message in the SG that the area, as Group 3, will be acceptable for wind energy development
 - Risk to potential World Heritage Site status by diminishing quality of the area
 - Area is at carrying capacity for wind farms
 - Cumulative effects on natural heritage including bird populations
 - Views around Loch Ness, particularly, the views from the high hill paths, the Great Glen Way between Inverness and Fort Augustus (open stretches), the South Loch Ness Trail, the Trail of the Seven Lochs, the views from the Abriachan Forest Trust viewpoint Carn na Leitir, the views from Meall Fuar Mhonaidh and from Carn Grioghair.
- Ben Wyvis Range.
- Lochluichart/ Corriemoillie- in particular the need to keep this cluster of development discrete and avoid sprawl.
- Dava/Moray- including impacts on tourist routes and Cairngorms National Park.
- Sutherland- in particular the area around Lairg and the north coast tourist route facing increasing landscape and visual pressure
- Ardross:
 - High concentration of wind farms with differing turbine heights in a concentrated area.
 - Wider effects of these developments are experienced on the A9 at the Cullicudden straight, the Inverness- Cawdor Road and the Black Isle
 - Areas around Strathrusdale and Sittenham are currently unaffected and therefore should be safeguarded in future
 - Viewpoints at: Inchlumpie, Strathrusdale, the Ardross road between Pillars Lodge and Ardross Castle
- Tarbat Peninsula- multiple and detailed areas are highlighted, to summarise:
 - Landscape east of Tain is flat with wide dispersed settlements, including Portmahomack, Rockfield, Hilton and Hill of Fearn. Development here would be an immeasurably large isolated feature out of scale with the rest of the landscape
 - Tarbat Ness, including the headland and lighthouse are a prominent tourist natural, historic and cultural heritage asset that brings multiple benefits including tourism, which could be impacted by wind energy development.
- Key routes including the Wild Coast Trail; other coastal routes and the Pictish Trail.

Government or Statutory Bodies (and some Members of Public/ Landowners' comments where similar)

- MOD sites and areas of interest:
 - Wick Technical Safeguarding Site
 - RAF Tain
 - Loch Ewe
 - Kinloss Aerodrome.
- Caithness- in particular those developments visible from Wick Tesco car park and along key routes including the A9. Open landscapes at Causeymire and Camster impacted by wind farm development.
- Cairngorms National Park and within its proximity.

Industry

- The preferred approach is a departure from SPP and NPF3, which rely on EIA and the DM process to assess the site-specific issues around a wind farm's cumulative effects.
- Defining thresholds of acceptable cumulative effect for an area could be a useful alternative approach to that preferred in the consultation paper.
- This section should strike a balance to emphasise the environmental benefits of renewable energy as well as economic benefits, as set out in SPP.
- Cumulative effects should only be used as part of the DM process, not for identifying strategic capacity, and not using the approach of asking the general public where they consider cumulative impacts to exist, which may lead to an inaccurate and subjective outcome.
- Cumulative effects are subject to continuous change, SNH's guidance 'Spatial Planning for Onshore Wind Turbines- Natural Heritage Considerations' is a useful resource that should be used by the Council, as it has been by industry, Scottish Government and others.
- As well as places where cumulative effect occurs, the specific effects include noise, loss of amenity, destruction of undeveloped environments- all features that attract people to live in the Highlands.
- Cumulative effects vary between different places and areas and include issues around intervisibility, and receptor sensitivity, therefore a complex set of judgements are required that may not be transparent to a casual observer.
- Some areas are agreed to have reached their capacity to absorb wind energy and is considered when identifying potential development sites.
- Caution is advised against seeking people's views to help identify areas of cumulative effect. Public perception of onshore wind varies dramatically, for example a recent government poll showed 68% in favour, and 10% totally opposed' (Public Attitudes Tracking Survey, Wave 12. DECC). However, it is usually only those with particularly strong opinions that respond to surveys and consultations, so results are often not a true reflection of the opinion of the general public. People's views are not scientific they are subjective, emotive and difficult to quantify, so it will be very hard to use them to provide a sound basis for outlining strategic capacity.
- Adding vertical axis wind turbines to existing windfarms does not increase the area of the wind farms and should be exempted from considering cumulative effects.

Member of the Public & other individuals

- All cumulative impacts have to be considered including social, landscape, visual, noise and environmental factors.
- Hill of Nigg- historic assets, tourism and natural heritage interests.
- Dornoch Firth to Loch Lochy in the Great Glen- particular risks related to skylining and impacts similar to those experienced along the M74 south of Glasgow.
- Corrieyarrick Pass- where the asset may soon be surrounded by developments.
- Walks between Bonar Bridge and Rogart, and the hills of Assynt- Ben More and Glen Affric

all either have multiple wind farms visible or are threatened by future development.

- Associated infrastructure, like overhead lines, has to be factored into any consideration of cumulative impacts.
- Strathnairn and Glenmoriston.
- Cumulative effects may also offer benefit, like access roads and opening up public access to countryside, improvement of roads infrastructure and connectivity of microgeneration to the grid.
- Windfarms are already too numerous when driving across Sutherland through Strath Brora, Lairg and Rosehall.
- Along long stretches of all the main tourist routes (A9, A96, A90, A82, and many others).
- The Great Glen (Loch Ness), Glen Moriston, Glen Carron, Strath Bran, Garve to Inverloch, Bonar Bridge to Ledmore junction, Glen Beag.
- Moray Firth Wind Farm will present extensive cumulative impacts that should deem further onshore development unacceptable.
- Cromarty Firth, the head of Loch Brora, the wider area around Lairg and large parts of Caithness suffer from cumulative effects.
- Flow Country in Caithness, the North Caithness Coast, the foothills of Ben Wyvis, roads leading to Ullapool, Achnasheen, Kyle.
- The cumulative effects of increasingly powerful tropical cyclones, the cumulative effects of extended droughts, the cumulative effects of flooding and extreme weather events, the cumulative effects of heat waves, the cumulative effects of the acidification of the oceans: all these things far outweigh the cumulative effect of wind turbines.

Issue 4b

Use local features to help identify strategic capacity

Summary of the comments received:

Campaign Groups, Charities/ Clubs/ Third Sector Organisations, Community Councils and Government or Statutory Bodies

- The principle of using local features is largely supported, but is too limited and should also include:
 - Local amenity
 - Viewpoints
 - Important local wildlife areas
 - Important historic sites
 - Local landscape designations
 - Cultural heritage assets
 - Major walking routes and Munros, Corbetts and Grahams not already included in NSAs and WLAs
 - SLAs should continue to be an important factor guiding windfarm development
 - Effects on tourism
 - Prominence of wind turbines
 - Listed Buildings, scheduled ancient monuments and historic battlefields
- Clusters should not be used to identify strategic capacity and are not part of SPP.

Industry

- Several respondents did not agree that it was necessary to use local features to map strategic capacity, stating that SPP gives no basis for using local features and that the benefits may be limited.
- Strategic capacity is not part of the spatial framework and should not be included as it confuses the SG. SG should only focus on the spatial framework and other non-statutory

- SG should address such issues, development plan policies already address these issues.
- Conservation Areas are unlikely to be relevant features for strategic capacity and should therefore not be used.
- Combining the Spatial Framework with local features and public input about areas of cumulative impact is not likely to create a strong baseline for identifying strategic capacity. Landscape capacity studies can often be an additional policy hurdle to developers.
- Positive identifiers could also be used, for example, where access is straightforward, or where development could bring positive landscape change.
- Grid connection opportunities could be identified as part of this exercise to indicate the most favourable locations.
- Technical issues like Airport Safeguarding can often be mitigated through technical solutions and therefore do not require to be included when mapping strategic capacity.

Member of the Public & other individuals

- General agreement with considering local features when identifying strategic capacity, some suggest: buffering around local features; using local knowledge to identify key features to safeguard; preventing any further development to occur, and using designations already included in Group 2 of the Spatial Framework.
- The hyperlink in para 3.34 redirects to the home page of the new Renewable UK website and not to aviation-specific content.

Issue 4c

Use local features, national constraints and cumulative effects to help identify wind clusters and spaces between them

Summary of the comments received

Campaign Groups

- A wider set of values should be used to assess the social, cultural and economic importance of landscapes.
- A landscape capacity approach should be used as it is too late to identify spaces and clusters.

Charities/ Clubs/ Third Sector Organisations

- Spaces between clusters must be respected by all stakeholders if the approach is to be successful.
- Additional requirement could be made for residential amenity impact assessment, where applicants are required to visit each property and apply a test like ‘will affected properties be less pleasant place to live?’
- The current strategic capacity map is insufficient because it does not include cumulative impacts or landscape capacity work.
- Bird sensitivity to wind farm clusters should be factored into any mapping, this should include inter-relationships between designated areas and around them where this land forms an important component for the species in designated sites.
- RSPB map of bird sensitivity should be used to identify strategic capacity.
- From a wildlife perspective, planning for wind turbines should be integrated with other land use planning and should consider constraints on the total area of a cluster of wind turbines from one or more developments depending on landscape type and location.
- Extensions and infilling in landscapes should be the preferred approach and discouraging ‘pioneering’ development between highly sensitive sites and landscapes.

Community Councils

- General agreement with the approach from Community Council respondents.
- Ultra Low Frequency Noise and Amplitude Modulation should also be considered.
- Pre-application consultation should be extended to community councils

Government or Statutory Bodies

- Local features should not be used to identify strategic capacity, these are considerations for the DM process and do not indicate available capacity.
- There is no reference to having a robust landscape capacity study, but this would be a valuable resource to inform the SG that would help inform where capacity has been reached, where spaces and clusters are evolving etc.
- Significant efforts to produce a landscape capacity study previously have failed, and in the absence of such a study, a simplistic approach of identifying areas where applications have been refused because the area is 'full' in the SG could be identified in the SG.

Industry

- Some support and some opposition to the space and cluster approach.
- The Spatial Framework is sufficient, mapping strategic capacity offers no benefits or certainty to the DM process.
- The introductory statement that all developments will be assessed on a case by case basis is important and should be retained as a caveat to any strategic capacity work.
- The extent of wild land areas in Highland mean the proposed policy approach may be overly restrictive and challenging to achieve.
- The process of assessing landscape is a technical one requiring professional judgement- this is beyond receiving comments from people about what their interpretation of cumulative effects in Highland are.
- The Welsh approach to identify strategic search areas was helpful, so the proposed approach may work, but in Wales further detailed assessments meant areas' boundaries had to be subsequently refined.
- Work should focus on intensifying the areas where wind farms already exist, but this should involve landscape capacity work.
- Any data used to inform this work should be up to date and local features should be omitted.
- Offshore areas should be the focus for strategic capacity, since no one lives there.
- The planning balance, informed by the EIA process is the most appropriate time to consider cumulative effects.
- The most useful approach is to state what target landscape outcomes are sought for different parts of Highland, and to set out what considerations THC will be taking (i.e. criteria for assessment).
- It is requested that the Highland Council clarify their position in relation to repowering and extensions in the context of wind energy clusters and strategic capacity.

Member of the Public & other individuals

- Disagrees because cumulative impact is subjective- there should be no assumptions that wind farms are acceptable because there is some unspecified space between different wind farms. Postal surveys should inform such decisions as well as the views of *local* councillors
- Moving parts draw the eye to clusters, so unsure the approach would be effective.
- Spaces between clusters would need to be huge to be effective.
- The tone of the approach is negative towards landscapes and should be reworded to address the question 'Can this landscape accommodate a wind farm without being significantly affected by it, bearing in mind its scale and its associated infrastructure?'

- Effectiveness will be determined by quality of information available and the judgement exercised in the process.
- Adding to existing clusters should not be done if it increases existing detrimental impacts, nor if it erodes spaces between clusters.
- The approach falls short of the standards set out in a report to Scottish Government on the European Landscape Convention (2000) that sets out recommendations for providing comprehensive guidance for all landscapes.
- Community perspectives and ecological complexity are not included in the document.
- A holistic approach that recognises all of our landscapes is required.
- Associated infrastructure should be a factor in considering strategic capacity areas.
- The electorate should decide where there is strategic capacity.
- Landscape enhancement is context specific and would be best addressed through landscape visioning exercises undertaken with local communities to suit their own needs including: forest plantations, wetland regeneration, riparian habitat enhancement, improving freshwater lochs and so on. This would align processes more closely with the European Landscape Convention (2000) and Scottish Government recommendations.

Recommended Council response to Issue 4a, b & c:

All comments have been noted and taken into consideration in the preparation of the Draft SG, and elsewhere where relevant. The following is a summary of that response:

1. Tourism is an important component of the Highland economy and is intrinsically linked to the natural and historic environment, particularly the high quality landscapes in the region. This issue is specifically addressed in the Draft SG.
2. The approach to identifying strategic capacity by using areas of cumulative effect, local features and group 3 of the Spatial Framework has been developed further, based on the detailed responses to the Consultation Paper. The method for the preferred approach is set out in the Draft SG, and deals specifically with the most pressured areas for wind energy development (study areas), taking into account features, landscape sensitivity, landscape character and existing patterns of development- carrying forward the space and cluster approach. This approach is preferred because it reflects the emerging development pattern in Highland. The method outlined will use expert judgement and review to take account of the particular concerns people have raised along with other considerations in the round to provide clarity to industry about what development the Council think is appropriate and in which geographical areas.
3. The large number of suggestions for areas, sites and features experiencing cumulative effects from wind energy development are being considered in detail as part of the approach to assessing Highland's landscape sensitivity. The method for the work is set out in the Draft SG, and all of the detailed comments received will be considered as part of this ongoing work.
4. Offshore wind energy development is an increasingly important component of renewable energy generation and is considered in the method described above.
5. Repowering and wind farm extensions will be dealt with specifically in the Draft SG for relevant study areas. This work will also take account of the European Landscape Convention and Guidance for Landscape and Visual Impact Assessment.

Issue 5**Remove the reference to financial involvement as it is unnecessary detail.****Summary of the comments received:**Campaign Groups

- Householders who accept a discount on electricity bills may be exposed to higher noise values as they are then considered as having a 'financial interest' (FI) in the scheme. Highland Council should be aware of this.

Charities/ Clubs/ Third Sector Organisations

- Occupants of a house can change over time and it may lead to problems in the future.
- Support for the preferred option of dealing with the issue of financial involvement on a case-by-case basis.

Community Councils

- Support for the preferred option of dealing with the issue of financial involvement on a case-by-case basis.
- Explanation of ETSU-R-97 needed and where this guidance can be found.

Government or Statutory Bodies

- Scottish Government request that reference to financial involvement is removed and para 5.16 not carried forward.
- THC Development Management agree that it should not be a material consideration.

Industry

- Mixed response as to whether or not to refer to FI. General support for proposals to be considered on their own merit.
- Those that support its inclusion believe it provides clarity and removal may allow the Council to ignore the ETSU-R-97 guidance.
- Those that support removing it consider that it not within the Council's remit to alter the guidance already contained within ETSU-R-97 or indeed that set out with national planning guidance in relation to noise matters and specifically financial involvement. No justification to depart from established government policy. It would be contrary to SPP and would lead to an inconsistency in the approach to noise assessment across Scotland.
- Paragraph 3.23 on the issue of FI, states that for FI to be applicable, the person must play an active and direct part in the development. The basis for that particular interpretation is not qualified, but is likely to be unreasonably restrictive, as FI could take many forms.
- FI should not only be acceptable in 'exceptional' circumstances but subject to the applicant providing details of the occupant's financial involvement, to the satisfaction of the Council.
- Suggested that the consultation paper's reference to 'active and direct involvement' be broadened in line with the ETSU-R-97 guidance to 'a tie can be made between the wind farm and the property'.
- Explanation required for reference 'future dwellings' as it is impossible to anticipate future developments. It is also not consistent with SPP.
- Separation distance should be identified on a case-by-case basis as there is no linear relationship between turbines and noise levels rather a product of background noise.

Member of the Public & other individuals

- Tenants and employees of houses which benefit from financial involvement should be protected.
- Financial involvement should always be declared to ensure transparency, openness and

honesty.

- For clarity the section on FI should be retained.
- Financial involvement should have no bearing on decisions because the health benefits would still continue to exist, properties may change owner in the future.
- ETSU-R-97 is outdated and inadequate and should be replaced. It does not take into consideration all the relevant factors, e.g. amplitude modulation.

Recommended Council response:

All comments have been noted and taken into consideration in the preparation of the Draft SG, and elsewhere where relevant. The following is a summary of that response:

1. Several respondents support the inclusion of the reference to Financial Involvement in ETSU-97, citing that it provides clarity and transparency. The Council do not support this stance and rather support the position that where these types of opportunity emerge on occasion, they can be dealt with on a case-by-case basis- a position supported by a number of respondents.
2. Removing reference to financial involvement does not prevent it from being taken into account in finding a planning balance on a case-by-case basis.
3. A full reference and hyperlink to the ETSU-97 guidance is provided in the Draft SG.

Issue 6**Require shadow flicker assessment for regularly occupied buildings within a distance of 11 times the rotor diameter to the nearest turbine.****Summary of comments received:**Campaign Groups

- Support for the preferred option.
- Request that there should be a requirement for shadow flicker to be assessed for main roads. This is an issue which has been missed in past wind energy applications.
- There should be a shut down mitigation where a turbine is shown in the shadow flicker assessment diagram to be in the shadow flicker zone.

Charities/ Clubs/ Third Sector Organisations

- Support for both the preferred option and the alternative. .

Community Councils

- Support for the preferred option.
- Shadow flicker at night from red warning lights should also be taken included.
- It should be considered on a case-by-case basis.
- Further research is needed to ensure 11 times the rotor is appropriate.

Government or Statutory Bodies

- Scottish Government are unclear as to what effects the mitigation is intended to overcome and why it is considered effective.
- THC Development Management team agree with the preferred approach as this will add clarity to the assessment and decision making process. Development Management team state that there should be a presumption against. Capacity to monitor and police is unknown. Precautionary principle should be applied.

Industry

- Objections to the approach because it is claimed that shadow flicker can arise in certain circumstances but it is an eminently manageable matter that can be satisfactorily addressed through mitigation, such as programming turbines to cease operation for the short time during which any dwellings may be affected. To take a stance that mitigation will only be acceptable in exceptional circumstances is not appropriate. If appropriate mitigation can be identified then there is no reason to withhold consent.
- Supportive of preferred approach but objects to 'presumption against' wording as mitigation is very effective. Mitigation should be acceptable in all cases, if the mitigation proposals remove the issue completely.
- Shadow flicker does not occur to road users/car drivers. This demonstrates a lack of understanding regarding the phenomenon of shadow flicker and the reference should be removed. Shadow flicker cannot as a matter of physics occur for road users / car drivers. The Council will need to be clear in the use of this term and explain clearly what the perceived impact to road users is. Reference in para 3.27 should be removed.
- Set back distance identified in para 3.27 should be justified. If it can not be backed up by evidence then it should be removed.
- Supportive of approach but additional factors should be included, such as it should not apply to areas north of the property, or where screened by topography, existing building or vegetation.
- The 5 minute effect per day should not be included as the modelling can be difficult and the potential impacts are rare and controllable. There needs to be some level of flexibility and the impacts/benefits of each proposal based on their own merits.

- The best way to describe this is through number of hours per year as it is more likely to occur infrequently but at longer periods than 5 minutes.
- The guidance should clarify what is meant by 'regularly occupied buildings' (referred to in both Policy 67 and the SG).
- The Council should evidence as to their reasons for the proposed increase from 10 to 11 times the rotor diameter setback. This goes against national policy and is not consistent with the way shadow flicker is assessed.
- Rewording required to provide protection of a consented windfarm development from neighbouring land uses, e.g. forestry which impacts on wind yield. E.g. "Any consented or operational windfarm should be protected from adverse impacts of a neighbouring development proposal".
- Instead of increasing from 10X to 11X the Council should reinforce their guidance that developers should undertake assessments during their design process and present these as part of the application.
- Mitigation should include agreements between the occupants and the developer for factors such as screening.
- Rotor height should also be considered.

Member of the Public & other individuals

- Support for both the preferred and alternative approaches.
- The trigger for assessment does not take into account topography which could mean the shadow could extend further.
- Navigational lights on the top of the hub can cause distraction at night.
- The 5 minute effect per day is too much. Many respondents argue that no proposals should be consented if they could cause shadow flicker.
- shadow flicker has been found to cause serious medical and well-being issues.
- shadow flicker cannot be mitigated against.
- Any turbines which are found to cause shadow flicker should be forced to shut down and be removed.
- If a 2km buffer was set for all properties then there would be no need for a shadow flicker setback to be identified.
- Shadow throw should also be part of the assessment.
- Glint and glare should also be assessed as there are cases for which this is causing a problem, e.g. Black Isle.

Recommended Council response:

All comments have been noted and taken into consideration in the preparation of the Draft SG, and elsewhere where relevant. The following is a summary of that response:

1. Suggestions for considering safety of road users is included in the guidance and will be carried forward into the Draft SG.
2. Mitigation of shadow flicker by turbine shutdown is highlighted as the preferred method of mitigation; the evidence for the decision to require a separation distance of 11 times the rotor diameter is now provided in the Draft SG.
3. A full glossary of terms is provided in the Draft SG to ensure clarity over technical and subjective terms used and their meaning as used in the document.
4. We acknowledge that there may be limiting affects of other development proposals on the efficiency of approved, under construction and operational wind farms and this is reflected in the Draft SG.
5. We have removed the reference to a maximum shadow flicker effect as some respondents stated there should be no effect, others suggested the duration should be expressed as time per year and others suggested as long as mitigation was implemented, there was no need for this requirement. Therefore we have outlined our preferred mitigation and will assess this on a case-by-case basis.

Issue 7**Road and Railway Considerations****Summary of the comments received:**Campaign Groups

- The distance should be much greater for safety reasons. Turbine blades have blown away over 1km with ice-throw causing major hazard.
- Consider 149m as the minimum distance for safety.
- This should include not only distance from railways and public roads but also tourist routes for walking and cycling.
- Proposals for wind energy developments must demonstrate no adverse effects on the public road network and traffic over the lifetime of a windfarm.

Charities/Clubs/Third Sector Organisations

- Agreed that more detailed guidance is required; which includes separation distances alongside the requirements for trial access runs for design and full assessment of road alterations, as this can alter landscape and visual characteristics.
- The British Horse Society (BHS) strongly recommends that a minimum separation distance of three times blade tip height will be required between turbine and any route used by horses. The separation distance should be extended to four times next to Core Paths and National Trails.
- MCoFS strongly supports maintaining access rights during construction.

Community Councils

- Agreed with this requirement. The Avoch and Killen Community Council recommend a minimum distance of four times the height of the turbine to avoid distractions and reduce risk from ice-throw. Where lights are on masts, distances from roads should be increased due to distraction effects.

Government or Statutory Bodies

- Transport Scotland recommends adding to para 3.46 by suggesting where the trunk road network is used to transport then an abnormal load route assessment should be undertaken and submitted to TS for consideration. This should identify the preferred route, pinch points where mitigation may be required and swept path analysis. Pre-application negotiation should be undertaken to address mitigation works.
- Further consideration in respect to transport implications of wind farm development should relate to the suitability of the roads in terms of width, alignment and strength.
- Para 3.45 refers to replacement, this would appear inappropriate as any replacement would be subject to planning and the roads would be reassessed at that time. Replacement could involve larger turbines necessitating increased mitigation. There are current discussions regarding a more strategic approach to road mitigation, where it is known a number of projects will be accessed off the same road. Redrafting of section 3.45 to strengthen this way forward is suggested as follows: "Any proposals 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 where the road network has suitable alignment, width and strength to carry abnormal loads and the construction traffic associated with the development proposed. In locations where the existing road network does not meet these requirements the developer will be required to undertake mitigation works to bring the road to a suitable standard before the

commencement of the works. The suitability of the road network (including mitigation) shall be adequate for the lifetime impact of the development from construction through maintenance to decommissioning.”

- The Council may adopt a strategic approach in coordinating the mitigation works to maximise the benefit to the developers and other road users. In these cases developers may be required to undertake mitigation works or provide a contribution to a larger scheme of works.
- Distances should correspond to not only public roads and railways but at all public realm.
- SEPA asks for the guidance to make reference to Appendix 1 of Standing Advice.

Industry

- Consensus that no clarification is given in terms of a technical basis of the justification for the requirement to provide a minimum distance twice the height of the turbine.
- The Department for Transport Circular 02/2013 advises lesser of the height plus 50m or 1.5 times the height of the turbine. THC should consider adopting this distance.
- Scottish Government advises a set back of least the height of the turbine. It is considered this preferred approach is not in accordance with national guidance, appearing excessive and restrictive. This may also simply lead to turbines being placed further into fields or forests, requiring further ground disturbance, hydrological and peat effects.
- Para 3.40 states ‘no less attractive’ but that is considered a term which may lead to ambiguity and it may be more appropriate to state that alternative, acceptable access provision should be provided that is safe and convenient for public use.
- The SG should take into account para 169 of SPP which sets out the development management considerations for energy infrastructure proposals. SPP considerations include net economic impact of proposals, the scale of contribution to renewable energy targets and the effect on greenhouse gas emissions.
- Para 3.46 recognises that developers will consider traffic and transport impacts from an early stage. However, it is unlikely that enough detail will be known to consider specific improvements mitigations.
- The proposed requirement for a minimum separation distance fails to a) reflect what is considered by others a safe distance; and b) consider the levels of usage, which is key to understanding risk. The Companion Guide to the former English PPS22 advised the following strategic network to truly maximise safety: wind turbines should be set back from public roads equal in distance to their height +10% for micro and small turbines. Commercial turbines should be set back a distance equal to their height +50 metres.
- Guidance produced by the Highways Agency should be considered and incorporated to base evidence for set backs and such effects through detailed surveys.
- THC should clarify if all routes included in the Core Path Plan or only the core paths themselves should be subject to assessment.
- This option is considered not appropriate as each site must be assessed on a case by case basis.
- The suggested distance contradicts the suggested and unwarranted 11-times rotor diameter threshold in Issue 6.
- Several examples of Highland windfarms are within twice the tip height to the road and operate without issue. Shadow flicker is mentioned as a safety consideration, but we consider that this is adequately covered under Issue 6.
- Para 3.25 is rather ambiguous statement which should further reflect the requirement for other issues to be considered especially in respect of LVIA and noise. It should be stressed that the planning system must take a balanced view of all considerations in the determination of an application.
- Suggested that tip height is sufficient for road and 1.5 times tip for rail. The wording is not appropriate as it goes much further than Policy 77, therefore does not allow for balancing with benefits after mitigation. Policy 67 of HwLDP wording should be revised to overall not

have a significantly detrimental adverse effect. Policy 77 is not particularly helpful as it merely seeks mitigation for direct effects.

- Suggestion that a more detailed assessment will be required of the potential effects on public road and access if closer than twice the height of the blade tip.
- Suggested distance of 1.5x for VAWTs as they do not have the same potential for danger as HAWTs.

Member of the Public & other individuals

- Turbines should never be near main roads. The distraction effect is underestimated. This should be a particular consideration if the land slopes downward to the road or railway track.
- All public realm should be considered under setback distance. This should be widened to include tourist routes such as South Loch Ness Trail.
- In regards to mitigation, residents often experience deterioration in spite of the stated requirements and mitigations which have already gone into plans.
- Distances should be increased on safety basis. Also protect access via path networks and rights of way.
- No more windfarms as it effects Scotland's tourism industry. Windfarms should not be visible from any roads or railways, as there are alternative sites available.
- Recommend distance of five times blade height.
- Agree with this approach. Infrastructure, communications and transport effects will be sufficiently covered through the process, particularly through transport assessments; also keen to see additional reference made to railway network, in terms of safety issues.
- Further justification of technical requirement of setback distances and the need to carry out assessment further on a case by case basis.

Recommended Council response:

All comments have been noted and taken into consideration in the preparation of the Draft SG, and elsewhere where relevant. The following is a summary of that response:

1. All road users are covered by this issue and reference is made to this in the Draft SG.
2. The key factors for road safety are about turbine collapse and distraction of road users by turbines. Therefore clarity has been provided in the Draft SG to highlight this and avoid confusion with the issue of shadow flicker and throw.
3. Reference has now been added in the Draft SG about abnormal load route assessments and other technical detail about roads use.
4. In response to the suggestion that there is a contradiction in the guidance with minimum distances required relating to road and rail safety (including collapse and distraction) and for shadow flicker, these are separate matters each of which needs to be considered.

Issue 8**Restoration bonds****Summary of the comments received:**Campaign Groups

- General consensus that highlighting of this issue is welcomed. Further clarification of this bond can only be positive, specific plans should be made to mitigate any degradation and enhance the environment.
- A restoration bond should take account of inflation over the lifetime of the development and should be condition of consent before any development takes place.
- Recommended and assumed that obsolete wind farms' non-biodegradable materials be removed and either recycled or disposed of responsibly.

Charities/Clubs/Third Sector Organisations

- Agreed that further guidance is required to secure full liability in decommissioning.
- RSPB supports this option with recommendation that THC go further to require developers have financial guarantees. It is advised that there should be a review of guarantees every 3-5 years to ensure sufficient value is in place.
- Consider a 'pay as you go' Escrow approach towards covering restoration costs. Perhaps for larger developments combined with an initial bond to cover the initial period. Caution against relying on bank guarantees because a call on this relating to a breach of a planning condition could lead to costly disputes and delays, and cause the developer to go into liquidation.

Community Councils

- Greater transparency of restoration bonds within the public domain. Existing bonds are not open to independent scrutiny, leading to lack of confidence in decommissioning arrangements.
- Up front financial payments are required to ensure developers can't easily wriggle out of obligations.

Government or Statutory Bodies

- Agreed that additional guidance is required, and updated national guidance should be used when available.
- Decommissioning needs to deliver aims of 1. Meeting waste requirements; 2. Minimisation of waste and 3. Minimisation of environmental impact.
 - Waste removal is currently unacceptable under current legislation; guidance should help reinforce this issue. Agreed with para 4.6 and suggest adding guidance from para 243 of SPP to ensure they are only permitted if there are significant environmental and economic benefits compared to obtaining material from local quarries.
 - Forestry and disposal of forest waste is an important issue raised. There should be a more specific para on this issue and reference made to the joint SNH, FC and SEPA Guidance Use of Trees Cleared to Facilitate Development on Afforested Land which is available from www.sepa.org.uk/environment/energy/renewable/.

Industry

- Page 25 makes reference to a 'national debate'. Further clarity should be established, suggesting that conclusion to this debate are set out in the draft SG.
- SPP para 169 is clear in stating the need for conditions relating to decommissioning and adds the need for a robust planning obligation to ensure that operators achieve site

restoration. This guidance should be referred to.

- The principle of ensuring an appropriate bond is in place is acceptable. The bond should provide appropriate security without being so onerous that it affects the viability of a development.
- If new national or local guidance is updated there should be opportunity to make further comment. Any future guidance should be through a thorough and transparent consultative process.
- National guidance is welcomed. However, this section may be rather premature in this context.
- Whirlwind renewables suggest continuing using existing reference as there may be funding issues if restoration bonds become overly prescriptive.
- The use of bonds is commonplace however it typically comes about through the process of the application. It would be supported to provide more information/guidance to developers at earlier stages in the process.

Member of the Public & other individuals

- All bonds must be reinforced by financial guarantees. It should not be “guidance” but legally binding conditions.
- General consensus that this is a very important part of the guidance, which should be reinforced and made as rigorous as possible.
- This should be a more transparent process, in which the public can provide requirements for individual cases which would prove more informative and practical. This could be addressed through ‘landscape visioning exercises.’
- The ‘restoration process’ should be rethought in that there should be a requirement to remove concrete bases and scars on access tracks. The bond should be in place prior to any development taking place, as part of the planning application with photographic records of the sites initial condition and throughout construction.
- Payment should be received up front alongside the application or over time, and backed by guarantee to keep the pace of inflationary increases and ensure liability of repayment. Suggested putting a charge on use of the land.
- Concern regarding following national guidance, as this may not be rigorous enough. Also what happens if national guidance does not eventuate? THC should have its own view, given the visibility and fragility of the environment and the longer time taken for nature to recover at higher altitudes being a more prevalent issue here.

Recommended Council response:

All comments have been noted and taken into consideration in the preparation of the Draft SG, and elsewhere where relevant. The following is a summary of that response:

1. THC consider the best way to ensure clarity is to refer to the most up to date guidance on restoration bonds. THC’s understand that guidance is currently being considered by Heads of Planning Scotland. If a document is published in time for the final SG, this will be referred to, otherwise the position stated in the Draft SG will be retained, where the robust process already undertaken is clearly set out.
2. At present the Council ensure that Section 75 Legal Agreements are in place for securing funds for site restoration. Typically reviews are undertaken every five years to ensure funds are sufficient to cover the cost of restoration, linked to a construction index.

Issue 9**Carbon rich soil, deep peat and priority peatland habitat****Summary of the comments received:****Campaign Groups (and some Community Councils and Charities/ Clubs/ Third Sector Organisations where similar)**

- Given the carbon sequestration, habitat, climate and other roles CPP play, all CPP should be afforded the highest policy protection with a presumption against development on it.

Charities/Clubs/ Third Sector Organisations

- The guidance should set out how the Council will assess proposed mitigation (in terms of the evidence that it will actually be effective) and also set out how the Council will address the scenario where, once a wind farm is operational, it becomes clear that the mitigation is not achieving the predicted effects. It is submitted that there must be some form of appropriate sanctions that will ensure that the wind energy operator takes effective action. This should probably include shutting down some or all of the turbines until the particular issues are rectified.
- The guidance should emphasise that wind farm infrastructure should be sited and micro-sited to avoid deep peat.
- Recommend an addition to the guidance to ensure that opportunities to mitigate impacts on peatlands via enhancement and restoration at the site are maximised.
- Highland Council should give consideration to what is an acceptable carbon payback period. We recommend that there should be a requirement to seek to reduce impacts and/or increase commitments to restoration where the payback period exceeds six months. We would recommend that the approach of Natural Resources Wales is adopted, in which developments are required to have a net zero or net positive carbon impact when considering emissions directly associated with the development, excluding the benefits of renewable energy.
- Account should also be taken of what implications there are if restrictions are placed on otherwise good opportunities for extensions or infill of existing wind farms, where the resource is already compromised.

Community Councils

- Carbon calculations supporting applications should be made available for public scrutiny.

Government or Statutory Bodies

- Sacrificing one carbon store to save carbon through renewables could be at odds. Peatlands should be safeguarded as carbon sinks.
- The guidance should be very clear that the CPP mapping does not indicate that in areas outwith those mapped, there is no peat and therefore no need for peat survey.
- SPP requires the same level of protection to various Group 2 Features- the approaches to wild land and CPP appear to differ, and this suggests either that the Council are seeking to increase safeguarding of wild land above the requirements of SPP or are downgrading the safeguarding afforded to CPP.
- It is important that the guidance sets out in what circumstances wind development may be appropriate in areas of CPP. The criteria for identifying these circumstances must be more onerous than is currently the case.
- Reference should be made to the Scottish Government's [Development on Peatland: Site Surveys](#) guidance in order that the requirements for peat survey are clearly set out in the SG.

- The supporting text to this issue should make it much clearer that the CPP map is not definitive, rather it is indicative of where CPP will be found on the ground.
- Information on the presence, scale and condition of CPP will be required by detailed site survey, and the results used to inform the design of schemes and mitigation where appropriate.
- A presumption against development in areas of CPP does not seem proportionate and is not supported as an alternative- SPP par. 205 clarifies what is proportionate: *Where peat and other carbon rich soils are present, applicants should assess the likely effects of development on carbon dioxide (CO2) emissions. Where peatland is drained or otherwise disturbed, there is liable to be release of CO2 into the atmosphere. Developments should aim to minimise this release.*

Industry

- Areas of carbon rich soil and peat form a large proportion of the Group 2 constraints. The mapping and the associated policy provision relating to peat and carbon rich soils presents an overly restrictive position and goes beyond that set out in SPP.
- It is not clear what the statement in the Consultation that *effects on the qualities of these areas should be prioritised* means. This should be clarified, and reference made to SPP and relevant guidance provided by SEPA and SNH.
- It is not clear what is meant by *greater scrutiny* than by means of the EIA process- clarity is required so that developers can submit the correct supporting information with applications. The opportunity for THC or Scottish Government to request this would be at EIA scoping stage.
- THC can and should exercise its discretion in mapping CPP. SNH have previously asserted that the data and mapping exercise are only indicative and should be informed by more specific and detailed site survey. To suggest an alternative approach to this would be contrary to SPP and overly restrictive.
- Scheme design and mitigation can be used to address impacts on peat, informed by detailed site survey.
- The CPP map is a broad level indicator based on high level aerial photography and habitat mapping that is no substitute for detailed site survey. Such technical assessment provides the means of identifying CPP and appropriate safeguarding or mitigation.
- The mapping in the final SG should be the final map produced by SNH, not the consultation version.
- Previous use of the peat should be taken into account in decision making, for example drainage or peat cutting, agricultural use.
- The guidance should provide further detail on how best to mitigate disturbance of peat.
- Should the successful restoration of a peat habitat occur as a result of a wind farm development, this area should not be prevented from repowering due to the presence of peat.
- Wind farms that are well designed around detailed constraints on appropriate sites, and which follow good construction practice on peat and carbon rich soils, do not risk significant damage to that resource. The wind farm itself can have a neutral to beneficial effect.
- It should be for the applicant to demonstrate by appropriate design and adherence to good practice that the most sensitive areas of peatland have been avoided and that remaining impacts are limited and mitigated.
- There should be some recognition that there is a balancing issue around safeguarding carbon sinks and minimising carbon release by non-renewable energy generation. Development can, and has been shown to turn unfavourable situations regards CPP into favourable ones.

Member of the Public & other individuals

- Further research on carbon balancing is required to gain a more accurate picture for

assessing the benefit of schemes.

- There should be a presumption against development on CPP due to its national importance and it being irreplaceable.
- Carbon balance studies should be considered in appropriate development proposals.
- Depth is important, but similarly individual site characteristics are important, a cautionary approach to this issue should be adopted, but avoiding deep (blanket) peat.
- This matter should be dealt with using expert assessment.
- Enforcement of conditions applied to mitigate effects must be better managed than at present.
- Should THC specify acceptability criteria for carbon payback and/ or carbon intensity?

Recommended Council response:

All comments have been noted and taken into consideration in the preparation of the Draft SG, and elsewhere where relevant. The following is a summary of that response:

1. SNH have outlined that the CPP mapping *is not a definitive guide to the distribution of CPP across Scotland. It indicates where these resources are likely to be found and should be used to guide development away from the most sensitive resources.* This is reflected in the Draft SG.
2. Through the work to identify strategic capacity, set out in the Draft SG, particular peat and other area-specific issues will be addressed.
3. Where mitigation is agreed by condition to a permitted scheme, an established process already exists whereby conditions are discharged, followed by monitoring. Where mitigation was found not to be undertaken, the established enforcement process would then be considered.
4. Regarding the publication of the final CPP map by SNH, it is the Council's understanding that at the time of writing this map is being finalised for publication. If the final version is published before the Draft SG is published for consultation, it will be used to inform the revised Spatial Framework Map. This map however will not feature in the Draft SG, rather it will be included in the revised HwLDP- the map will only be included for reference in the Draft SG.

Issue 10**Repowering****Summary of the comments received:**Campaign Groups

- Agreed that the principle needs clarified in guidance.
- Save Our Dava suggest the text should read the 'current use' of the windfarm site, rather than 'proposed' as with no consented windfarm at present, does not establish suitability of a site for repowering, despite renewed E.I.A procedures being adopted. Many developers plan to repower in advance of initial construction, therefore there should be a moratorium on developers being able to repower schemes approved but not yet constructed.
- While a wind farm site may be considered as suitable for use in perpetuity, the replacement turbines should be rigorously assessed to ensure no detrimental landscape or visual impact.

Charities/Clubs/Third Sector Organisations

- Repowering is an important planning consideration which needs to be addressed in detail through this guidance. It emerged from SPP (2014), implying a presumption in favour of a renewal of permission for replacement of turbines on an existing site. However, general assumption suggests that with repowering the size and capacity of the turbines may change and therefore, full cumulative assessment should be undertaken and should be treated as a new application and be fully consulted.
- For sites with no existing wind farm it is unclear how the Council is going to address an application that might be lodged 25-30 years hence.
- RSPB supports the principle; however, appropriate reappraisal of potential impacts on birds should be undertaken.

Community Councils

- Agreement with preferred approach.
- It should be considered that until this SPP wind farms were considered by many as temporary structures and therefore would be inappropriate to consider these old sites as permanent, when the decision was made considering them as temporary.
- Other views agree with this option as repowering is designed to improve efficiency by replacing with new equipment and should not require full assessment.

Government or Statutory Bodies

- Agreed support of the principle of repowering. Further clarification on this issue is welcomed as a number of windfarms are reaching this stage.
- This approach suggests historic decisions were good decisions. It will be important to take careful consideration at the time of review to improve as it may not always be like for like repowering and the size and capacity of turbines can alter which could have adverse effects on the surrounding environment.
- SNH agree suggesting some caveats will be required in guidance which recognise changes (e.g. protected species use of the site, increased visual impacts, increased ground disturbance) compared to those assessed at the time of existing wind farm development.

Industry

- The principle of repowering is supported. However, it is not agreed that this principle needs further clarification in the guidance. The position on repowering is clearly set out in SPP para 174, with the need to underpin renewable energy targets. SPP also requests that

development plans should set out criteria that will be considered for wind farms of different scales, including extensions.

- Suggestions have been made to consider the inclusion of guidance on 'windfarm extensions' alongside repowering.
- Repowering should be supported to encourage the modernisation of equipment, increasing capacity and enabling new technologies to reduce the effects of old developments.

Member of the Public & other individuals

- Agreed with the principle of an existing site being considered as a material consideration, as the suitability of the site would have been given careful assessment for approval so this seems sensible rather than moving onto new sites. However, repowering should be considered with great caution as many designations and impacts can change over the 25 year period. For example, under the new designation of wild land, many of these sites would now be deemed unacceptable. Likewise an older site with smaller turbines (Novar) might not be considered suitable for repowering of larger more visually intrusive turbines. Being a material consideration should therefore not overrule the same environment and social considerations which were relevant at initial approval. Reassessment of these sites will give the opportunity to rectify any past mistakes and ensure the Council remains in control.
- Issues 8 & 10 seem to contradict each other by the use of the term 'in perpetuity', especially considering the public have always been told these structures would only be temporary.
- In the event of a proposal for repowering, a consultative process with the public should be considered important in determining this decision.
- More guidance is required as these sites become industrial zones and will attract other industries i.e. solar farms, hydro schemes. There should be a long term plan for these sites with full consideration of environmental characteristics.

Recommended Council response:

All comments have been noted and taken into consideration in the preparation of the Draft SG, and elsewhere where relevant. The following is a summary of that response:

1. Several issues raised by respondents refer to ensuring fair consultation, clear and up to date assessment of site and environmental issues. Although the existing use of a site as a wind farm is a material consideration, each application for repowering is submitted and assessed as a new planning application, therefore these issues will be addressed as a matter of standard practice for a planning application. This is reflected in the Draft SG.
2. Reference is made to the ongoing work on strategic capacity, which will provide further clarity on area-specific development opportunities, including extensions, repowering and collocating developments to capitalise on existing infrastructure whilst managing effects.

Issue 11**Include new technical guidance on noise assessment for turbines with rotor diameter greater than 16m (as set out in Section 6)****Summary of the comments received:**Campaign Groups

- No objections to the proposed guidance but generally, most non-industry respondents did not have the necessary acoustic knowledge to comment on the technical aspects.
- Suggestion for permanent noise monitoring in some situations.

Charities/ Clubs/ Third Sector Organisations

- Suggestion that the Council should look to move away from ETSU-R-97 as compliance with the ETSU noise limits can still lead to a loss of residential amenity that should lead to proposals being rejected.
- Request that the issue of noise still being a potential problem even when complying should be addressed by the Council's Policy.
- Request that THC makes it clear how the Council will check and verify background noise assessments .
- Suggestion that wind farm extensions should be treated as a separate topic area.

Community Councils

- The difference between the proposed standards and methods for small turbines (<16m) and bigger turbines is still causing some confusion.
- Local Opinion should be a major consideration in determining Onshore Wind Energy Developments.

Industry

- Generally very little support from industry in introducing any measures which may be more restrictive than what the guidance in ETSU and the Good Practice Guide .
- In particular the proposed tightening of daytime and night time noise limits was not supported.
- Little agreement on some of the proposed assumptions in the guidance such as Highland having lower background levels therefore justifying a lower turbine noise limit.
- Suggestion that there is sufficient National guidance and another layer of guidance is unnecessary.
- Request for clarification and better wording of some aspects of the supplementary guidance.
- Clarification requested on criteria for financial involvement.
- One or two comments apparently from industry seemingly in general to be in agreement with the proposed guidance but little additional information given.

Members of the Public & other individuals

- Several comments stating the respondent did not have the technical knowledge to comment.
- Suggestion that noise monitoring should be a requirement in some circumstances rather than just where complaints arise.
- Suggestion that noise limits in rural areas should be even lower than that proposed in the guidance due to the very low night time background levels in some areas.
- Suggestion that while research into amplitude modulation (AM) is ongoing and because there are no current controls, that development should be halted until further information on the impact of AM is better known.

- Suggestion that the supplementary guidance should have reference to infrasound and low frequency noise.
- Suggestion that there is evidence to suggest that wind turbine noise is a public health issue and needs input from health experts.
- Suggestion that some developers deliberately overestimate background levels due to the poor siting of noise monitoring equipment.
- Several responses that the guidance in ETSU is obsolete. One stating disappointment that THC is “accepting it as gospel.”
- Very detailed response highlighting work done by a noise consultant Mike Stigwood. Basically, it suggests that noise from wind turbines can be a significant issue even where noise levels meet current ETSU standards and that even though it is accepted as guidance by government this is not an excuse to misstate the impact of noise. Also references to the work undertaken by Mike Stigwood in relation to amplitude modulation which does go against the conclusions of other consultants.
- Request that Council Policy should safeguard against future concerns such as AM.
- Some references to noise standards from the World Health Organisation which refer to 30dB. However, the WHO standard relates to internal noise levels within a bedroom at night. The wind farm limits relate to external noise levels outside a property.
- Several suggestions that the same guidance should apply to all turbines.
- Several general comments that the Council’s Policy should have more reference to health protection from infrasound, low frequency, amplitude modulation.
- Suggestion that noise was less of an issue than visual considerations.

Council’s Noise Consultant

- Clarification that there is other guidance which relates to wind farm noise such as Scottish Government’s PAN 1/2011 and “Onshore Wind Turbines” advice note. However, acknowledged that in practice decisions are almost always made within the ETSU framework.
- Queries whether different assessment methods on the basis of blade diameter is appropriate and suggests other criteria may be more relevant but acknowledges that adopting different standards for different turbines may be problematic whichever way it is approached.
- Acknowledged that the BWEA standard which HC currently uses for small (<16m) turbines has been superseded.
- Various suggestions re changes to wording.
- Regarding the proposal to restrict daytime levels to the lower end of the ETSU limits, the consultant acknowledged that this will be contentious but as it does not go outwith the framework of ETSU he thinks the wording is acceptable.
- Regarding the proposal to restrict night time levels to a 38dB limit the consultant advises that this is outwith the ETSU framework but that it can be justified and advises the wording can be left as is.
- Agrees that restriction of noise limits to 2 or 3 dB above predicted levels is a good idea.
- Has a concern regarding cumulative impacts and the criteria for when exactly a developer will need to consider cumulative noise. Quite a technical discussion and the consultant has offered a suggested appendix to address this however, it may still require further discussion.
- Disagrees with the use of cumulative conditions i.e. where the onus is put on a second developer to ensure the overall noise is compliant. However, acknowledged that two Reporters’ decisions have said otherwise.
- Raises some queries re the use of the BWEA 2008 standard for small turbines. Some suggested wording alterations offered but also a suggestion just to use the same guidance (ETSU) for all turbines.
- Suggested changes to existing wording and additional wording.

Recommended Council response:

All comments have been noted. The Council sought and has received (as included in the summary above) a review of the noise assessment part of the Consultation Paper from its noise consultant. We will give further consideration to all of these issues. The Draft SG (appended to the Committee report) provides a current position statement and we may add further materials into the Draft SG in due course. Key issues arising from the comments are discussed briefly as follows:

Public etc.

1. With regard to the different approaches to small and large turbines and also following comments from the Council's consultant it is apparent that the way noise from small turbines is assessed needs to be reviewed.
2. With regard to comments that the current national guidance (ETSU-R-97) is obsolete, this view is supported by many professionals however, there appear to be no proposals for reviewing the guidance anytime soon. To clarify, both UK and Scottish governments have endorsed ETSU. It should also be noted that the scope of ETSU was to allow renewable development while affording a reasonable level of protection to residents. It is not primarily aimed at protecting amenity.
3. With regard to infrasound and amplitude modulation: the case regarding infrasound has yet to be proven; however, AM is known to be a potential issue and national research into this is ongoing. At this time there is no accepted best practice on how to address AM and the Council's policy and this guidance has no specific safeguards on the potential impact of AM.
4. Generally all the comments from the public and community groups were in favour of greater controls and restriction of wind farm noise. The intended purpose of this supplementary guidance was to try to do that by applying the tightest standards within the framework of the ETSU and in some cases going beyond that.

Industry

5. Unsurprisingly, the majority of comments were not in favour of accepting anything which might impose greater restrictions than that allowed by ETSU. Most of the proposals in the Consultation Paper were aimed at implementing the tightest standards allowable under ETSU and in some cases to go beyond that. The issue is whether this is a justifiable approach or whether applications should be considered on a case by case basis.
6. Several comments requesting clarification on and changes to the wording of some parts of the guidance which require to be addressed.
7. Our response on the matter of financial involvement is dealt with under Issue 5.

Council's Noise Consultant

8. The Council's consultant has made a number of comments and suggestions on the supplementary guidance. It seems clear that the approach taken regarding smaller turbines requires to be reviewed. The Consultant's comments suggest that the use of the tightest standards within the ETSU framework can be more easily justified than moving away from ETSU; however, even then there have been precedents accepted by Reporters.
9. With regard to the Council's consultant agreeing that restriction of noise limits to 2 or 3 dB above predicted levels is a good idea, it may be noted that this was one aspect which most of the industry responses also seemed to not raise concern on.
10. With regard to cumulative conditions, the Environmental Health Officer's current views are still that they can be used but we may seek legal advice on this.
11. There are a number of proposed wording changes which need to be considered.

Other Comments

Summary of the comments received:

Campaign Groups

- Consideration should be given to creating possible search areas for small scale/single turbines due to the increase in demand for them.
- The spatial framework must include cumulative impacts, including of associated infrastructure.
- Amendments to the maps: Offshore shaded areas in Group 2 should be removed from the map as is the case for Group 3; only Group 3 areas should be shown in Map 3; all lochs are greyed-out .

Charities/ Clubs/ Third Sector Organisations

- Small point-features can be a significant constraint and if mapping them is too difficult then a list could be prepared and included as an appendix.
- For simplicity and consistency it is recommended that Table 1 state that no turbines at all will be allowed in National Parks or NSAs.
- Group 2 wording “substantially overcome by siting, design or other mitigation” is vague and subject to interpretation. Wording should be as precise as possible in terms of which wind turbines might be allowed.
- Support for wording in para 2.8 “... unlikely to be acceptable ... a heavy burden of proof would lie with the developer”.
- Group 3 wording “are likely to be acceptable” should be removed as it cannot logically be applied until the applications are considered against the defined policy criteria.
- “Significant undesignated assets and areas” (Para 3.8) needs to be properly described to ensure clarity and consistency.
- Map 3 is helpful for showing the different groups. It would be of considerable value to overlay the windfarm activity map layer on Map 3.
- Cumulative impact and landscape capacity should be factored into the spatial planning guidance. Despite a lack of recognition from the Scottish Government of the critical importance of cumulative impact, any review of applications/appeals would show that they are key determining issues – the Council can address this. It is recommended that a full study of these aspects be undertaken with considerable urgency and that, in addition to publishing the subsequent report, the Council should publish a supporting map which would show the areas where landscape capacity had been reached in addition to showing the group 1 and group 2 areas. This would result in group 3 being smaller.
- Paras 3.6, 3.8, 3.16, 3.30, 3.39 and 3.45 all include reference to developments 'not having a significant' adverse effect on the topic under consideration in the respective paragraph. However, any windfarm will have some significant impacts but these must be balanced against significantly positive effects.
- Confusion regarding how applicants should approach the preparation of visualisations due to the conflict between SNH and THC standards.
- Evidence should be provided to support opening statement in para 3.22 regarding less noise in Highland.
- Para 3.40 - Access provision being made 'no less attractive' during windfarm construction is subjective and has no policy basis.
- Statements in the guidance on siting and design and forestry should refer to existing guidance instead of reinterpreting it.
- There is a lack of information on how each of the 11 criterion is to be assessed. Some of the expressions used are vague. The interaction between the criteria and how overall acceptability or otherwise is to be worked out is not specified, e.g. are some ranked as a

higher priority than others? Would failure to meet one of the criterion lead to rejection of the scheme?

Community Councils

- Additional considerations for the threshold should be blade size, proximity to areas of population, similar applications which have been refused and to airports.
- The spatial framework fails to take into account many inhabited areas and classifies them within Group 3. It indicates that these areas are suitable for windfarms and prioritises populated areas over wild land areas.

Government or Statutory Bodies

- Scottish Government suggests amendment of para 2.1 to “...identifies spatial constraints *and opportunities...*”
- SNH request that the lochs are greyed out in the finalised maps so that it is clear that they do not fall within a grouping, especially Group 3.
- Scottish Government suggests that the potential to collocate wind farms with energy storage solutions be considered, particularly where grid capacity constraints might exist.

Industry

- It is unclear which elements of the consultation paper will be adopted as part of the spatial strategy and those adopted as Supplementary Guidance by the Council.
- Many respondents state that much of the wording throughout the document is overly negative and in this regard is inconsistent with Scottish Planning Policy and the aim that the Spatial Framework is nationally consistent. The wording should be positive where possible.
- THC woodland guidance should recognise that one way to address the twin aims of reducing renewables energy costs and the loss of woodland is to increase the turbine hub/tip height.
- The consultation document aims to present a much more onerous framework than Policy 67 and is contrary to legislative provisions for SG.
- The proposed approach to secondary development such as 'transmission stations' and 'power lines' is not commensurate with the industry approach to delivering these forms of development and requires to be clarified.
- Clarity is required on which visualisation standards a developer should be using (i.e. THC's or SNH's).
- The guidance must recognise that technologies are evolving and the design and height of turbines components are changing.. A flexible approach is required to ensure that new, more efficient technologies can be delivered.
- The purpose of the Appendices to the consultation document is unclear.
- Policy 67 is now not reflective of SPP as it does not include reference to net economic impacts, scale of contribution towards renewable energy generation targets or the effect on greenhouse gas emissions. These factors should be included as specific development management considerations.
- The Supplementary Guidance should state that outline information, where it is available should be provided in relation to the potential impacts of secondary development.
- It would be more appropriate for the title “background on the current state of renewable energy” be changed to 'renewable energy policy context and associated targets'
- The figures shown in the Background section are not up-to-date, e.g. gross electricity consumption in Scotland and installed and operational capacity. The statistics for Highland are a point in time and will become out-of-date quickly. Inclusion in the SG is questionable.
- The guidance should make greater reference to national, UK and European policy drivers, e.g. renewable energy targets and climate change commitments.
- Several respondents state that the presumption against larger wind farms within Group 2

areas is inappropriate and inconsistent with national policy. SPP states that in such areas “wind farms may be appropriate in some circumstances”. Also the term “a heavy burden of proof” is not appropriate and in place of this the term “sufficient environmental information should be provided by a developer to demonstrate why a proposal should be supported” should be added.

- To reflect SPP Group 2 in Table 1 should be amended to read “other nationally importantly mapped environmental interests” and instead of 'community separation' it should read “community separation for consideration of visual impact.”
- General support for Map 1 but mixed response for Map 2 and 3. Concerns focused on the application of SNH consultation map for CPP. Requests that background information for the preparation of the maps should be made available to inform appropriate environmental assessment.
- Soils Scotland mapping (SNH CPP mapping) should be removed due to inconsistency with SPP. The resolution of the mapping is poor and does not provide enough information to reliably identify carbon rich soils.

Member of the Public & other individuals

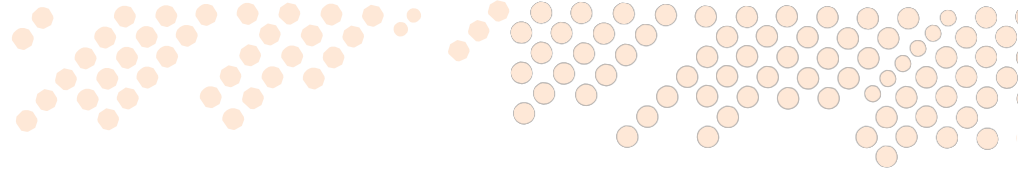
- Several respondents generally object to any further onshore wind energy developments in Highland due to the visual impacts.
- The guidance must provide definite statements of protection and not allow for ‘get out clauses’.
- Local knowledge should be taken into account when considering wind farm applications.
- Some found the contents of the document itself and its overall purpose difficult to understand. Suggested amendments include a glossary of terms, and a clearer and simpler structure.
- The mapping is not suitable for accurately finding specific locations.
- Generally supportive of small scale individual turbines for farmers/estates if suitably sited.
- Smaller scale and single turbines need to be assessed for cumulative impacts.
- Cumulative impact of associated infrastructure must also be included.
- The blue areas shown in Map 3 are important corridors which many people travel along. These should be protected from development.

Recommended Council response to comments received:

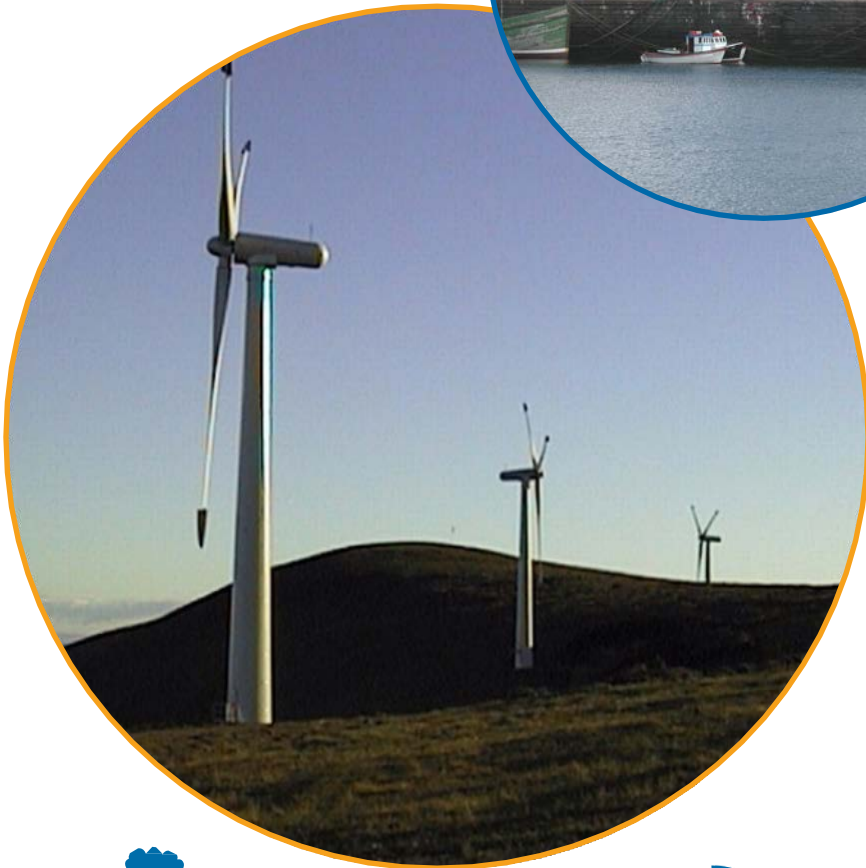
All comments have been noted and taken into consideration in the preparation of the Draft SG, and elsewhere where relevant. The following is a summary of that response:

1. The Draft Spatial Framework Maps and supporting text will be included in the revised Highland-wide Local Development Plan (the Main Issues Report for HwLDP is the subject of another report to this committee).
2. A method is set out in the Draft SG for identifying Strategic Capacity, this will address what development is appropriate in certain areas, will take account of cumulative and other effects, and will be underpinned by work examining the sensitivity of the landscape of each study area included.
3. The ‘planning balance’ between positive and negative effects of wind energy development are addressed in the introduction to the Draft SG.
4. The Council’s visualisation standards are not designed to be onerous, but rather the standards require information to be presented in a particular way.
5. The Draft SG sets out a revised approach to what the SG deals with and what will sit within policy in the HwLDP, as outlined in point 1 above.
6. The SG has been restructured and a glossary will be added.
7. Our intention is to additionally make the spatial framework mapping accessible as an interactive map online which will enable the user to zoom in to a larger scale than the maps included in the SG document.

**APPENDIX 2:
DRAFT SUPPLEMENTARY GUIDANCE (COMMITTEE VERSION)**



Draft Onshore Wind Energy Supplementary Guidance



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1. ABOUT THIS DRAFT SUPPLEMENTARY GUIDANCE

This introductory page of the Draft SG will set out the stage we are at in the review process and will explain how people can share their views on the guidance.

2. INTRODUCTION

This Draft Supplementary Guidance (SG) sets out how Highland Council manages onshore wind energy development in line with Section 22 of the [Town and Country Planning \(Scotland\) Act 1997 as amended by the Planning etc. \(Scotland\) Act 2006](#).

When the Council deals with planning applications for proposed onshore wind energy development, including as a statutory consultee to Scottish Government on applications over 50MW capacity, it has regard to the Development Plan (comprising Local Development Plans and Supplementary Guidance) and other material considerations. The law states unless material considerations indicate otherwise, an application is to be determined in accordance with the development plan. This SG forms part of the [Highland-wide Local Development Plan \(HwLDP\)](#), supplementing key principles that are set out in policy.

Scottish Planning Policy 2014 (SPP) 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. HwLDP shows the Spatial Framework in Highland, as required by SPP.

This SG applies to all scales of wind energy development, unless otherwise stated. The general guidance is relevant to both vertical and horizontal axis wind turbines.

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>.

The advice that follows provides a fuller interpretation of the HwLDP policies as they relate to onshore wind energy development. The Council will balance these policy considerations with wider strategic environmental and economic objectives, including sustainable economic growth in Highland, and our contribution to renewable energy targets and tackling climate change.

Where reference is made to a wind energy proposal or development this includes all associated infrastructure, unless otherwise stated. Applicants are strongly encouraged to provide information on all aspects of their proposed development as far as possible at application stage, including information on intentions for connection to the grid, in order that the Council has the fullest understanding of the scheme.

3. KEY DEVELOPMENT PLAN CONSIDERATIONS

This section sets out how important features and assets, safeguarded through HwLDP, are expected to be safeguarded in relation to wind energy development.

3.1. The Natural and Historic Environment

HwLDP policies set out how we manage all development in relation to our rich natural and historic environment. The following list highlights key aspects related to onshore wind (it is not exhaustive and all development proposals will be assessed against all relevant policies set out in HwLDP):

- 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 (these 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)). Where relevant, the Habitat Regulations Appraisal (HRA) must consider any connectivity between international nature conservation designation/s. If a HRA identifies a proposal is likely to have a significant effect on a European nature conservation site it must be subject to an assessment by the competent authority. Where a habitat management plan is necessary developers should consult the SNH guidance: [Good Practice During Windfarm Construction](#).
- No proposal should compromise the natural environment resources of Highland. Potential for significant adverse effects on nationally important features must be clearly outweighed by social or economic benefit of national importance.
- All proposals must have regard to the Highland [Special Landscape Areas including their citations](#) that summarise key characteristics; qualities; sensitivities, and measures for enhancement. These citations will be used to assess impacts of proposals where relevant.
- All proposals must demonstrate that they will not have significant adverse effect on the siting, context or setting of historic environment assets, including direct physical, indirect or cumulative impact.
- Where a proposal is likely to have 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 current SNH guidance. Wind energy developments within mapped areas of wild land are unlikely to be supported unless it can be demonstrated should demonstrate that significant effects on the qualities of these areas can be significantly overcome. Development out with mapped areas of wild land that could have significant effects upon their qualities may also require a wild land assessment. There may therefore be some opportunities for development to be accommodated, but only where it avoids impacts on the wild land resource.

- For further context about the wild land areas, applicants may find it useful to refer to the [SNH information](#) on this.
- Onshore Wind Energy developments have potential to impact upon species and habitats, for example by disturbance or increasing collision risk. Developers should refer to HwLDP policies for details of the protection afforded to species and habitats. Species identified in Schedules 2 and 4 of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended (European Protected Species) should seek to avoid any adverse impacts on these species. Where a license is required, the Council must be satisfied that all three tests could be met under Regulation 44.
- 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.
- 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. The Council has [Supplementary Guidance on statutorily protected species](#) and this should be referred to by any prospective developer.
- The potential for impacts of any secondary developments such as power lines or transmission stations should also be addressed where relevant.

3.2. The Water Environment

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. The interactive River Basin Management Plan provides useful site specific data which could help inform these assessments.

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).

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. This opportunity may be available through the Major pre-application advice service the Council provides.

3.3. Peat

The HwLDP sets out clear expectations about how development should safeguard the peat resource. It is a key asset that requires safeguarding because it plays a central role in climate change mitigation and adaptation through carbon sequestration as well as other greenhouse gases. Wind energy development in Highland is often proposed in areas where peat may be present, to varying extents and to differing levels of sensitivity. The following list sets out key factors to be taken into account when considering a development proposal that has potential to affect peat:

- Peat survey and site assessment should inform wind turbine siting and design where peat is present. Through this assessment, impacts on peat should be avoided, for example, by micro-siting to avoid deep peat, avoiding altering hydrological regimes with turbines or associated infrastructure etc. Applicants should ensure that the information gathered for such site options is clear, concise and includes detailed mapping of peat depth covering all areas where development activities will affect peatland, as well as details of the basic peatland characteristics.
- Mitigation of effects of development on peatlands may include habitat restoration and enhancement onsite.
- When considering applications, the Council will expect to receive clear information about the whole life carbon balance of the proposal; this can be undertaken, for example, by using a 'Carbon Calculator'. For Section 36 applications, use of the carbon calculator will be expected for developments on areas of deep peat.
- The Council may also ask for a habitat management plan and this may include consideration of peatland habitat.
- Where relevant, applicants should have regard to the carbon rich soils, deep peat and priority peatland habitat (CPP) mapping produced by SNH (2015). This is a Group 2 constraint in the Spatial Framework in HwLDP. The SNH map is not a definitive guide to the distribution of CPP across Scotland. It indicates where these resources are likely to be found and should be used to guide development away from the most sensitive resources. Therefore, 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 overcome through siting and design or by suitable mitigation. Impacts must consider all stages from project inception to wind farm operation and decommissioning-including a detailed construction environmental management plan. For projects subject to EIA, THC in consultation with key agencies (including SNH and SEPA) will set out what relevant elements of the proposal related to peat will require to be assessed at the scoping stage.

Proposals on peatland should have regard to the following key publications:

- 'Calculating Carbon Savings from Wind Farms on Scottish Peatlands – A New Approach (2011).
- SEPA's Regulatory Position Statement – Developments on Peat.
- 'Good Practice during Windfarm Construction' guidance (updated 2013) developed

by Scottish Renewables, SNH, SEPA and FCS.

- Scottish Government's [Peat Hazard and Risk Assessment Guide](#) , particularly in relation to peat slide/bog burst risk
- The Scottish Government's Guidance, Development on Peatlands: Site Surveys
- The Scottish Government's Land Use Strategy particularly maps 6 and 8.
- Regard should also be had to any published management strategies for peatlands.

3.4. Trees and Woodland

HwLDP sets out clear expectations over how trees and woodland (including commercial forestry plantations) are to be managed and safeguarded in relation to development. Trees can often reduce the efficiency of wind turbines due to reducing wind speeds. In such circumstances, developers may seek to remove trees to improve the efficiency of energy generation from turbines. However, there are a number of detailed considerations that have to be taken into account. The following list highlights key points, it is not exhaustive and development proposals will be assessed against all relevant policies in HwLDP.

- Targeting of commercial forestry plantations for windfarm development is becoming more commonplace because such areas often are less constrained in terms of conservation designations and can benefit from existing road infrastructure. Where tree felling is a key component of a proposal, the individual or cumulative effects could result in substantial loss of commercial woodland resources, which is contrary to Scottish Government Policy: [Scottish Forest Strategy \(2006\)](#).
- 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 their proposal meets the necessary criteria.
- Developers should minimise loss of woodland wherever possible. The Council has produced [Supplementary Guidance on Trees, Woodlands and Development](#) and this should be referred to by any prospective developer.

3.5. Landscape and Visual Effects

All wind energy proposals must demonstrate that the development will not have significant adverse landscape or visual effects, individually or cumulatively (with other built, permitted or lodged wind energy proposals). All wind energy proposals in Highland will be assessed against the criteria set out in Section 6.1. The following list highlights key assets, but is not exhaustive, all proposals will be assessed against all relevant policies in HwLDP:

- Local landscape character (as defined within a Landscape Character Assessment);
- Special Landscape Areas;
- National Parks or National Scenic Areas and mapped wild land areas;
- 2km from residential properties and boundaries of settlements (mapped, where relevant)
- important public views (this includes popular viewpoints, the adopted road network, key and designated tourist routes, public footpaths, core paths and other recognised visitor

locations).

Developers should seek to mitigate any unavoidable adverse landscape and visual effects, taking all factors into account, such 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.

The Council has [Visualisation Standards for Wind Energy Developments \(2010\)](#) and developers will be expected to follow these in preparing their submission. These differ from guidance by SNH in their publication 'Visual Representation of Windfarms – SNH' (2006); but, the Council's standards do not seek additional information, rather 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.

3.6. Siting and Design of Wind Turbines and Wind Farms

Sensitive siting and design plays an important part in making wind energy developments 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.

HwLDP sets out our specific expectations for safeguarding important natural environment features, some of which relate to the high quality landscapes of Highland. HwLDP also sets out our expectations for the proportionate landscape assessment of development proposals. These policies are relevant to wind energy development and particularly the siting and design of schemes.

The operational efficiency of a windfarm, whilst key for commercial and energy generation reasons, is a matter for developers. However the Council does expect these considerations to be balanced with adequate mitigation of adverse impacts, siting and design of schemes is a key aspect of such mitigation.

Design and layout of access tracks and other infrastructure will also be an important consideration in terms of the overall impact of a scheme and developers are expected to provide details of these aspects of the development. This include associated infrastructure like plans for connecting the scheme to the electricity transmission grid (whilst it is acknowledged that such

information is not always available, or subject to change, the Council strongly encourage this information to be provided in order to consider the scheme in its entirety).

The evolution of the design of a scheme provides useful information for assessing applications. Developers are encouraged 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.

SNH have guidance on the [Siting and Designing Windfarms in the Landscape \(2014\)](#) and guidance on [siting and design for turbines at the lower height ranges](#), and these should be referred to when designing schemes.

The cumulative impact (which includes but is not limited to landscape and visual impacts, including on residential amenity) of an increasing number of wind turbines within a locality in Highland is a matter that the Council closely monitor. There are particular pressure areas for wind energy development in Highland and Section 4 of this guidance addresses them.

3.7. Safety and Amenity at Sensitive Locations

A range of issues that are afforded policy provision in HwLDP are set out below. These specifically address the potential effects of wind energy developments on residential amenity, noise, shadow flicker, and the safety of residential properties, roads and railways.

The Council considers all residential buildings to be particularly sensitive to wind energy development. Where larger scale developments are proposed within 2km of residential buildings and settlements, applicants will be expected to clearly demonstrate how potential impacts on amenity have been avoided or mitigated.

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 out with any defined settlement boundary.

The following factors will be taken into consideration when assessing proposals:

- Highland generally has lower levels of background noise than elsewhere. Given this, the Council's established approach is to expect wind energy developments to achieve a standard whereby noise arising from wind turbines does not have a detrimental impact on amenity. The Council's established approach is therefore 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 Section 6.2 that should be referred to.
- The Council may impose planning conditions to ensure adequate mitigation of impacts on amenity at sensitive locations, for example to address: 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.
- Any proposal for a wind energy development must demonstrate that it will not have a significant adverse effect on safety of any residential or regularly occupied property including: 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.

- 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. The Council may support a scheme that relies on mitigation, where it is deemed to be effective. In such instances turbine shutdown systems will be the required mitigation. The increase in distance from the widely accepted 10 times rotor diameter to 11 is to account for the northern latitudes of Highland- this is in line with the conclusions of the [DECC Update of UK Shadow Flicker Evidence Base, 2011](#).
- 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 any potential impact of distraction caused to users (including cyclists, horse riders, pedestrians etc.).

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.

3.8. Tourism and Recreation

Tourism and recreation are essential to the Highland economy. In giving consideration to the effects that a proposal may have on the national and Highland tourism and recreation resources and 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, that may have knock on effects for tourism and recreation.

The full detail of the Council's Planning policies relating to tourism and recreation are set out in HwLDP.

3.9. Public Access

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 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.

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 providing the same level of amenity, and is safe and convenient for public use.

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. SNH's [Guidance for the Preparation of an Outdoor Access Plan](#) and 'The Right to Roam: The Land Reform (Scotland) Act 2003' should be referred to.

3.10. Safety of Airport, Defence and Emergency Service Operations

Any proposal for a wind energy development must demonstrate that it will not have a significant adverse effect, individually or cumulatively, on airport, defence or emergency service operations. This includes flight activity; navigation and surveillance systems; and associated infrastructure.

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. Applicants are encouraged to engage this process where relevant, further information is available at: <http://www.bwea.com/aviation/proforma.html>. Furthermore the MOD also provides advice through their wind energy and aviation helpline number: 0121 311 3847.

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.

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

- Private Airfields

3.11. The Operational Efficiency of Other Communications

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.

3.12. Traffic and Transport Interests

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 where the road network has suitable alignment, width and strength to carry abnormal loads and the construction traffic associated with the scale of the development proposed. In locations where the existing road network does not meet these requirements, the developer may be required to undertake mitigation works to bring the road to a suitable standard before the commencement of works. The suitability of the road network (including mitigation) shall be adequate for the lifetime impact of the development from construction through maintenance and decommissioning.

The proposals for the use of the public roads and mitigation works 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.

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. Where trunk roads are to be used for transporting abnormal loads, a trunk roads assessment should be undertaken in consultation with Transport Scotland, further guidance is available [online](#).

The Council will seek, where appropriate, to follow a strategic approach to coordinate mitigation works in areas where more than one scheme is permitted. This will maximise the benefits of road improvements to developers as well as other road users. In such instances, developers may be required to undertake mitigation, or contribute towards a larger scheme of works.

For development of wind farms below 10MW not subject to formal EIA, applicants should refer to Appendix 1 of [SEPA's Standing Advice for Planning](#) etc. for guidance of the principles SEPA apply to development management. This advice includes information on a range of information,

including reference to flooding and pollution from the construction of wind farms and associated infrastructure.

3.13. Electricity Transmission Cables and Lines and Gas Transmission Underground Pipelines

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.

3.14. Impacts of Other Proposed Developments on Existing or Consented Windfarms

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. Applicants of other development types can check the highland Council's online wind map to identify if their proposal may have a limiting effect on an approved, under construction or operational wind energy scheme. The Council will consider effects on neighbouring developments and land uses when assessing planning applications.

3.15. Mitigation

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. The Council will look for developers to provide mitigation plans that set out the mitigation necessary and how it will be delivered.

3.16. Restoration bonds

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. These will be reviewed, typically every five years, to ensure that the value of bond is sufficient to restore the site at the end of the permission. Further information about restoration and decommissioning are included in the SNH Guidance: [Siting and Designing Wind Farms in the Landscape](#) and in their [Research and guidance on restoration and decommissioning of onshore wind farms](#).

3.17. Repowering

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.

When considering new proposals, the Council will take into account the existing use as a wind farm and will balance this with all of the development plan considerations set out in HwLDP and this Draft SG. This will include consideration of the most up to date situation e.g. natural environment, including designations and features identified since the original permission was granted.

Section 4 of this Draft SG sets out the Council's method for assessing strategic capacity. The results of this work will provide further clarity on area-specific development opportunities, including extensions, repowering and collocating developments to capitalise on existing infrastructure.

3.18. Community Renewable Energy Developments

The HwLDP sets out the Council's support for community renewable energy developments.

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.

The Council/ Highlands & Islands Enterprise '[Community Toolkit](#)' and the Scottish Government/ Community Energy Scotland publication '[Community Renewable Energy Toolkit](#)' provide useful information.

4. HIGHLAND STRATEGIC CAPACITY

Given the current pressures for development Highland is experiencing, it is important that the Council assess the baseline and provide clear guidance for all stakeholders about Highland's capacity for wind energy development.

The following sets out the method the Highland Council is currently using to assess all of the wind energy clusters where there is capacity for wind energy development. This work compliments the spatial framework, builds on the existing pattern of development and is intended to effectively spatial plan future onshore wind energy in the region.

4.1. Assessment of current wind energy capacity based on study areas

Identifying Study Areas: Study areas identified as those areas under most pressure from onshore wind energy development, based on their existing pattern of development. Study areas may be comprised of a single cluster of wind farms, or several clusters in a wider area. This work is informed by, and draws on landscapes identified in *Scotland's Landscapes* (SNH, 2014).

Characterising Study Areas: Study areas described:

- Properties of the cluster (or clusters), including Landscape Character Type
- Scale and density of existing wind farms (existing pattern of development)
- Setting of wind farms within the landscape, including the pattern of the cluster (s) (e.g. distance between clusters/ windfarms from particular aspects)

Assessing the sensitivity of the Landscape: Sensitivity of Landscape Character Type (s) defined, based on the SNH Landscape Character Assessment (s) of the area, assessed against generic landscape criteria, drawing on established best practice principles.

Assessing the sensitivity of the visual environment: Sensitivity of study area's visual environment described, taking into account area-specific parameters (e.g. key landmarks, vistas etc.), informed by site visits and assessed against generic visual criteria, drawing on established best practice principles.

Identifying capacity for wind energy development: Based on the above assessments, areas where further wind energy development could be appropriate are described, setting out scale and other factors that reflect the properties of the cluster, this includes likely scenarios in terms of repowering (including changes in turbine height, spacing etc.).

Results of the analysis are documented, describing the characteristics set out in the method above, using graphics to indicate the key properties and parameters in the study area that THC expect to be considered and safeguarded.

5. ADVICE FOR SMALL SCALE DEVELOPMENTS

5.1. Small scale: Preparing Proposals

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/info/180/planning_-_applications_warrants_and_certificates/187/when_to_get_planning_permission/4.

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 [highland.gov.uk/downloads/file/356/revise_d_template_for_eia_screening_and_scoping](http://www.highland.gov.uk/downloads/file/356/revise_d_template_for_eia_screening_and_scoping));
- whether or not the proposed development is covered by 'Permitted Development Rights' (a permitted development form can be accessed from [highland.gov.uk/downloads/file/3030/guidance_note_for_permitted_development](http://www.highland.gov.uk/downloads/file/3030/guidance_note_for_permitted_development));
- what type of application will therefore require to be submitted to the Council;
- what information should be submitted as part of the application.

5.2. Small scale: Planning applications

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/info/180/planning_-_applications_warrants_and_certificates/143/planning_permission.

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

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.

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).

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 relevant details contained in Section 6.2.

5.3. Small scale: visualisation assessment

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

There may, however, be occasions where applications fall out with 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.

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.

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 Area¹' (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.

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.

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.

5.4. Permitted Development for Domestic Wind Turbines

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

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%.

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.

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

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.

5.5. Further Submissions Required for Planning Applications in Certain Cases

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 February 2015).

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.

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.

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.

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.

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.

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.

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.

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.

6. FURTHER TECHNICAL INFORMATION

6.1. Landscape and Visual Assessment

All wind energy proposals in Highland will be assessed against the following criteria, based on the characteristics of the proposal and its surrounding area (e.g. existing turbine scale, density, landscape character etc.):

	Criteria (see Glossary for definition of terms used)
1	The extent to which the proposal creates a sense of being encircled by wind energy development for receptors in settlements, or being in a tunnel/corridor of such development on routes
2	The extent to which the proposal reduces the gateway qualities of a location, including fixed locations and routes
3	The extent to which the proposal affects the setting of valued natural and cultural landmarks
4	The effects of the proposal on the amenity of key recreational routes and ways (e.g. Core Paths, Munros and Corbetts, Long Distance Routes etc.)
5	The effects of the proposal upon the amenity of transport routes (tourist routes as well as local road access)
6	The degree to which the proposal fits with the existing pattern of nearby wind energy development, considerations include the common turbine type of the area (e.g. turbine dimensions) and the layout (e.g. siting and density of existing developments)
7	The extent to which the proposal maintains or affects the spaces between existing clusters of wind turbines
8	The effects of the proposal on receptors' existing perception of landscape scale and distance
9	The extent to which the proposal respects the landscape setting of nearby wind energy developments
10	How a proposal may affect the distinction between neighbouring landscape character types

6.2. Noise Assessment

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. It is expected that noise assessments submitted in support of applications for large wind turbines should be undertaken in accordance with ETSU and the GPG. However, even with the publication of the Good Practice Guide, there are some parts of ETSU which remain open to interpretation and opinion which can result in differing conclusions between developers and Planning Authorities.

Some of the areas of concern are:

- Application of different noise limits depending on certain criteria;
- Differences in the approach to addressing cumulative noise impacts;
- A lack of acknowledged best practice with regard to the impact of amplitude modulation;
- A lack of acknowledged best practice regarding the use of wind-shields for noise meters;
- Differences in the approach to choosing background monitoring locations.

An attempt to address these issues was made by the Council through the drafting of supplementary technical guidance which was put out for consultation in 2015. This has generated a wide range of comments from industry and non-industry respondents. In addition, the opinions of one of the foremost experts on wind turbine noise was sought. The result of this consultation is that further questions have been raised regarding the technical aspects of the assessment of wind turbine noise. Further discussion on these is required before a decision can be made as to what level of information is appropriate to be included in any Supplementary Guidance.

Further to the above, there is a separate issue regarding the applicability of ETSU and the GPG to smaller domestic sized turbines. 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.

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. Highland Council has successfully used this guidance for several years, however there are now concerns that this standard is obsolete. Some of the responses during the aforementioned consultation exercise have also highlighted confusion in having two different methods for assessing different sized turbines. Again further discussion on this matter is required before a decision can be made on the most appropriate approach with regard to smaller turbines.

7. Glossary

A glossary of terms used will be added to this section.

8. References to further information

This section of the Draft SG will provide the full references to all guidance and other documents cited.