## Sent by e-mail 23 April 2004

## THESE REPRESENTATIONS SUPPLEMENT AND REINFORCE MY ORIGINAL REPRESENTATIONS OF 29 NOVEMBER and 20 DECEMBER 2002

'Morloch'
Waterstein
Glendale
Isle of Skye
IV55 8WT

Mr Bill Hepburn Principal Planner, Department of Planning and Development, Glenurquhart Road, Inverness, IV3 5NX

23 April 2004

Ref: jc/rdc/03

Dear Mr Hepburn,

Re: 02/00275/FULSL Ben Aketil Wind Farm Application

Please find below further representations regarding the above proposal.

Thanking you in advance for your kind attention.

Yours sincerely,

Dr Jeremy Carter

- 1. Objection is lodged that the applicant's analysis of the collision risk to golden eagles is unrepresentative and systematically underestimates the collision risk to golden eagles.
- 1.1 Please note that these sites have the highest level of golden eagle activity of any sites in Scotland under consideration for wind farm development. The applicant's consultant is a contributor to the SNH collision model and SNH best practice guidelines, and the applicant presents a collision risk analysis<sup>1</sup> based on this SNH model<sup>2</sup>.
- 1.2 The likelihood of collision depends largely on the bird utilisation rate after wind farm construction, the total rotor swept volume of the turbines, and the vulnerability of the species under consideration. The SNH collision model computes the probability that a moving bird-sized object and turbine blade will arrive at the same place at the same time, with an error given by the uncertainty in the bird utilisation rate of the area<sup>3</sup>. The model does nothing to illuminate the vulnerability of any particular species, and this parameter has to be estimated with a very large uncertainty that dominates the uncertainty in the final collision risk result. In this respect I draw your attention to the SNH/BWEA best practice guidelines<sup>4</sup>:

"Careful consideration should be given to the level of confidence that can be attached to this [ie vulnerability] information. Greater confidence can be attached where data from a number of comparable sites yield similar estimates. With the limited monitoring data available to date, it is likely that uncertainty over avoidance rate [ie vulnerability] will represent the largest uncertainty in the risk assessment."

1.3 Therefore the key parameter in the applicant's collision assessment is the choice of an estimate of vulnerability for golden eagles (referred to by the applicant as 'non-avoidance'), and in this respect the applicant has selected 99.5% avoidance, ie 0.5% vulnerability. The applicant claims that this figure is derived from an analysis of vulnerability at other wind farms<sup>5</sup>. However, reference to the applicant's own source reveals the following:

"In conclusion, published accounts give a wide range of 'avoidance' shown by birds. Data from Green (1995) even suggests that windfarms may not be avoided at all. Other accounts suggest a range of values between 0.37 and 0.037 (Schmidt 2003), and that resident birds showed an avoidance of 0.05 (Winkleman 1995). Data on risk or exposure suggest that for some species the lower limit of that range may be extended to near 100% avoidance (Erikson 1999)".

23/04/04

<sup>&</sup>lt;sup>1</sup> Madders, M., *Proposed Windfarms at Ben Aketil and Edinbane: A quantitative collision risk model for golden eagle*, Ben Aketil Wind Farm Supplemental Information, Annex B, March 2004.

<sup>&</sup>lt;sup>2</sup> Band, W., Madders, M., Whitfield, D. P., *Developing field and analytical methods to assess avian collision risk at wind farms*, in de Lucas, M, Janss, G., Ferrer, M. (eds). Birds and Wind Power. Lynx Edicions, Barcelona, in press. <sup>3</sup> A rough and ready estimate of the size of this error could easily be extracted from the variance in the utilisation rate observed between the different vantage point watch sessions, but unfortunately the applicant has not included this information. Therefore I will ignore this error here, which in any case it is likely to be less than the error in vulnerability estimate.

<sup>&</sup>lt;sup>4</sup> SNH/BWEA, *Methodology For Assessing The Effects Of Wind Farms On Ornithological Interests*, paragraph 27. <sup>5</sup> McGrady, M. J., *Avoidance of windfarms by birds: A review of the available data*, Natural Research Limited, Draft, 25 April 2003.

- 1.4 In other words, the vulnerability measured at existing wind farms ranges from 100% to 0%, and yet for the assessment of Golden Eagle the applicant has chosen to use a figure of 0.5%, apparently derived from data on a wide range of species including, for example, Woodpecker and waterfowl. The applicant offers no explanation for its choice of 99.5% avoidance and such a figure is not justified on the basis of the evidence presented in its Environmental Statement. The applicant has not included in its review the extensive literature<sup>6</sup> available from wind farms where golden eagles are known to be at risk. Furthermore, none of the sources reviewed by the applicant agree with each other and yet the applicant gives no indication whatsoever of the magnitude of uncertainty: instead, attaching the greatest of confidence to the absolute value of its unsubstantiated estimate contrary to the SNH/BWEA Guidelines. [The applicant notes that uncertainty exists, but asserts that its proposal will not have a significant impact because its estimated collision rate is five times less than that for Edinbane. Such an assertion is incorrect since it is the absolute collision rate that defines significance, rather than the relative impact.]
- 1.5 In practice, Golden Eagle is a species that is particularly vulnerable to collision, and indeed evidence indicates that where wind farms have been located in golden eagle habitat they are killed in numbers far greater than would be expected from their abundance<sup>7</sup>. The best available study<sup>8, 9</sup> of golden eagle behaviour in wind farms notes:
  - "...raptors spent significantly more time flying at close proximity to turbine blades ... than 51-100 m away ... or >100 m away ... Analyzing the total number of minutes of flight time reveals that something about wind turbines may attract red-tailed hawks to fly near turbines and at dangerous heights. Similarly, American kestrels flew in proximity level 1 [ie 1-50m from turbine] nearly four times longer than expected by chance, golden eagles two times longer, and northern harriers three times longer".

<sup>6</sup> eg: W. Grainger Hunt, et al. A Population Study of Golden Eagles in the Altamont Pass Wind Resource Area: Population Trend Analysis 1994-1997, Predatory Bird Research Group, University of California Santa Cruz, National Renewable Energy Laboratory Report NREL/SR-500-26092, 1999. <a href="https://www.nrel.gov/wind/26092.pdf">www.nrel.gov/wind/26092.pdf</a>; W. Grainger Hunt et al., Golden Eagles in a Perilous Landscape: Predicting The Effects Of Mitigation For Wind Turbine Blade-Strike Mortality, University of California Santa Cruz, California Energy Commission Report, (2002). <a href="https://www.energy.ca.gov/reports/2002-01-10\_600-00-030.PDF">www.energy.ca.gov/reports/2002-01-10\_600-00-030.PDF</a>; Thelander, C. G,Smallwood, K.S., Rugge, L., Bird Risk Behaviors and Fatalities at the Altamont Pass Wind Resource Area Period of Performance: March 1998-December 2000, National Renewable Energy Laboratory Report SR-500-33829, 2003, Page 20. <a href="https://www.nrel.gov/docs/fy04osti/33829.pdf">www.nrel.gov/docs/fy04osti/33829.pdf</a>; Smallwood, K. S., Thelander, C., Spiegel, L., Raptor Mortality At The Altamont Pass Wind Resource Area, National Wind Coordinating Committee Meeting, November 17, 2003, <a href="https://www.nationalwind.org/events/wildlife/20031117/presentations/Smallwood">www.nationalwind.org/events/wildlife/20031117/presentations/Smallwood</a>; Hoover J, The Response of Red-Tailed Hawks and Golden Eagles to Topographical Features, Weather, and Abundance of a Dominant Prey Species at the Altamont Pass Wind Resource Area, California, California State University Sacramento/ National Renewable Energy Laboratory Report (2002) <a href="https://www.nrel.gov/docs/fy02osti/30868.pdf">www.nrel.gov/docs/fy02osti/30868.pdf</a>; etc.

<sup>&</sup>lt;sup>7</sup> see eg W. Grainger Hunt et al., *Golden Eagles in a Perilous Landscape*: *Predicting The Effects Of Mitigation For Wind Turbine Blade-Strike Mortality*, University of California Santa Cruz, California Energy Commission Report, (2002). <a href="https://www.energy.ca.gov/reports/2002-01-10">www.energy.ca.gov/reports/2002-01-10</a> 600-00-030.PDF

<sup>&</sup>lt;sup>8</sup> Thelander, C. G,Smallwood, K.S., Rugge, L., *Bird Risk Behaviors and Fatalities at the Altamont Pass Wind Resource Area Period of Performance: March 1998-December 2000*, National Renewable Energy Laboratory Report SR-500-33829, 2003. <a href="https://www.nrel.gov/docs/fy04osti/33829.pdf">www.nrel.gov/docs/fy04osti/33829.pdf</a>

<sup>&</sup>lt;sup>9</sup> Smallwood, K. S., Thelander, C., Spiegel, L., *Raptor Mortality At The Altamont Pass Wind Resource Area*, National Wind Coordinating Committee Meeting, November 17, 2003, <a href="https://www.nationalwind.org/events/wildlife/20031117/presentations/Smallwood">www.nationalwind.org/events/wildlife/20031117/presentations/Smallwood</a>

23/04/04



1.6 There is little evidence from Scotland at present, although one study 10 from Argyll notes:

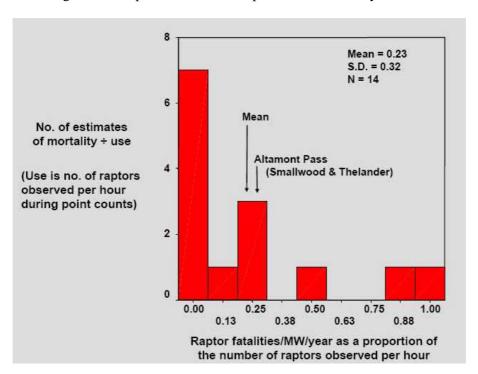
"eagles have not shown any specific avoidance behaviour ie flights where the direction is altered dramatically to avoid the wind farm"

- 1.7 The applicant has given no consideration to the fact that its estimate of vulnerability is based on small wind turbines when evidence shows that rotor size has a profound impact on collision risk<sup>11</sup>:
  - "5.5.2 Windswept Area The number of fatalities at a turbine string increased with the total windswept area of the string ... Windswept area of the string explained more of the variation and tended to be more significant than was the number of turbines in a string ... This relationship indicates that other string-level analyses should also be adjusted by the string's windswept area, which appears to substantially increase vulnerability."
- 1.8 From the foregoing it is evident that the SNH model makes little contribution to estimating the collision risk because the whole procedure ultimately depends on extracting an estimate for vulnerability and displacement from existing wind farm data. However, this procedure is made more difficult in practice because the SNH model requires that the vulnerability be uncoupled from the two main effects of rotor swept volume and utilisation rate, which have already been treated separately in the spatial part of the SNH model.
- 1.9 A far simpler method of doing exactly the same thing as the SNH model is to take the survey data and apply the measured risk per MW per birds observed per hour at existing windfarms where raptors have been studied with sufficient statistics. This direct method obviously suffers from similar limitations in respect of the displacement and vulnerability estimates, but it has the advantages that:

<sup>10</sup> Letter from S. Sheridan (Consultant to Scottish Power at Beinn an Tuirc Wind Farm) to M. Henderson (Avich & Kilchrenan Community Council), 17 February 2004.

<sup>&</sup>lt;sup>11</sup> Thelander, C. G,Smallwood, K.S., Rugge, L., *Bird Risk Behaviors and Fatalities at the Altamont Pass Wind Resource Area Period of Performance: March 1998-December 2000*, National Renewable Energy Laboratory Report SR-500-33829, 2003, Page 20. <a href="www.nrel.gov/docs/fy04osti/33829.pdf">www.nrel.gov/docs/fy04osti/33829.pdf</a>

- it is simple and clear;
- it uses MW installed capacity which is correlated with total rotor swept volume;
- it uses birds observed per hour which is correlated with utilisation rate;
- the measured raptor vulnerability is used normalized to MW installed capacity and bird utilisation, which integrates all the complexity of raptor behaviour after construction;
- all the parameters and their errors except displacement can be readily and easily estimated from high statistics post-construction raptor studies currently available <sup>12</sup>.



1.10 Using the above data, which is the best available at the present time, and the survey data, ie assuming that there is no displacement and that eagle utilisation of the site continues at the same rate after construction, the following results are achieved:

	capacity MW	survey time hours	eagles observed	eagles observed per hour	Raptor fatalities /year/MW /birds observed	eagles collisions per year
Edinbane	47.25	75	75	1	$0.23^{+0.32}_{-0.23}$	10.9 +15 -10.9
Ben Aketil	21	159	63	0.4	$0.23^{+0.32}_{-0.23}$	1.9 +2.7 -1.9
cumulative	68.25	234	138	0.6	$0.23^{+0.32}_{-0.23}$	9.3 +12.9 -9.3

<sup>12</sup> Smallwood, K. S., Thelander, C., Spiegel, L., *Raptor Mortality At The Altamont Pass Wind Resource Area*, National Wind Coordinating Committee Meeting, November 17, 2003, www.nationalwind.org/events/wildlife/20031117/presentations/Smallwood

- 1.11 It is of course possible that some post-construction displacement may occur, but it is not currently feasible to estimate this parameter with any practical certainty. In particular the results from Beinn an Tuirc are not useful in the present case because they refer to a resident breeding pair rather than a dispersion area in a high density golden eagle habitat.
- 1.12 Therefore the best available estimate is that the applicant's proposal will result in between 0 and 4.6 eagle collisions per year with a mean of 1.9 per year at 95% confidence, assuming no displacement. In combination with the Edinbane windfarm the result is between 0 and 22.2 eagle collisions per year with a mean of 9.3 per year at 95% confidence, again assuming no displacement. Note that the 1:5 ratio given by the spatial component of the SNH model is approximately preserved (it is a feature of the rotor swept area and the utilisation rate), and that the SNH model's estimates are well within the range of uncertainty. The mean is more likely on the high than the low side because:
  - there is no estimate of displacement included, should it occur;
  - the vulnerability data include a contribution from raptors such as red-tailed hawks which may be more vulnerable than golden eagles;
  - the calculation does not take into account the number of different individuals using the
- 1.13 Nonetheless, these effects are not likely to be large compared with the uncertainty, and I am satisfied that this is a more reliable figure for collision risk than the applicant's claim, based as it is on high statistics raptor data collected from an upland wind farm, rather than on speculative extrapolation from observations concerning unrelated species. Note that the applicant does not disclose the magnitude of the uncertainty in its estimate, which gives the applicant's result an unwarranted impression of precision, whereas in practice these uncertainties are at least as great as those of the direct method (see 1.9 above), due to the dominant uncertainty in the vulnerability and displacement estimates used in both methods. Note also that the mean arrived at by the direct method is with reason higher than that given by the applicant, because the observed behaviour of golden eagles in, for example, preferentially flying in close proximity to turbines is integrated in the measured raptor vulnerability data.
- 1.14 The applicant's own assessment of the impact of the Ben Aketil wind farm is that one golden eagle may be killed every 8.5 years, and cumulatively with the Edinbane wind farm one eagle every 1.5 years<sup>13</sup>. Leaving aside the fact that the applicant's assessment is very likely an underestimate of the collision risk for Golden Eagle (as I have shown), it implies that even the applicant's estimate is that the combined impact of these developments may be to kill 17 golden eagles over 25 years. The more realistic direct estimate not including displacement but based on observation at existing wind farms gives a mean of 1.9 collisions per year for Ben Aketil, and 9.3 collisions per year for the cumulative impact, implying that these developments may kill up to 233 golden eagles over 25 years. Whichever estimate is considered, an impact of this severity is completely unacceptable.
- 1.15 The proposal is contrary to the Birds Directive, NPPG 14, NPPG 6, the Highland Structure Plan 2001 and the Skye and Lochalsh Local Plan 1999. In particular the Skye and Lochalsh Plan has:

"General Policy 2.4.12 The Council has prepared policy guidelines for the development of wind farms within the Highlands. Proposals for wind farms must conform to these guidelines..."

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<sup>&</sup>lt;sup>13</sup> Madders, M., *Proposed Windfarms at Ben Aketil and Edinbane: A quantitative collision risk model for golden eagle*, Ben Aketil Wind Farm Supplemental Information, Annex B, March 2004.

and the Highland Region Wind Energy Regional Policy Guidelines state:

- "4.2 ... Golden eagles are nationally very rare, but are renowned as a breeding species on Skye. They require large hunting areas in order to maintain present population levels. Known breeding and hunting grounds for eagles should therefore be safeguarded from turbine placement, unless it can be satisfactorily demonstrated that no adverse impacts will occur."
- 2. Objection is lodged that the Ben Aketil Wind farm, on its own and in combination with the Edinbane wind farm, will have a severe adverse impact on the golden eagle population of Skye and on the conservation interest of the Cuillins Special Area of Protection.
- 2.1 Golden Eagle is listed in Annex 1 of the Birds Directive. The Birds Directive provides for "special conservation measures concerning their [Annex 1 species] habitat in order to ensure their survival and reproduction in their area of distribution". Therefore the conservation objective of the Cuillins Special Protection Area is not only to protect the breeding population in the Cuillins (one quarter of the Skye population) but also to ensure that the survival and reproduction of the Skye and wider Scottish populations is maintained. In this respect it is important to note that SNH's 'designated area' interpretation of the Directive (ie of requiring only the protection of a small part of the golden eagle breeding population within an SPA) is not sufficient to ensure compliance with the Directive where a far-ranging and widely dispersed species such as Golden Eagle is concerned.
- 2.2 The area of the proposed development serves an important function as a dispersion area for pre-adult eagles of the Skye population, including pre-adults originating in the Cuillins SPA, which is only 8 miles away. It is one of the few areas that are undefended by breeding pairs and is therefore vital to the survival of the non-breeding segment of the population. This fact is reflected in the very high level of use of the area by a large number of different pre-adult eagles, noted both in the survey data and elsewhere, eg: "...we often see juvenile and immature eagles in larger than usual numbers across this range..." <sup>14</sup>.
- 2.3 Evidence from observations suggests that the survival rate for adult breeding golden eagles in Skye may be as high as 97.5% <sup>15</sup>, implying an average life expectancy of adult golden eagles of 39.5 years. This would indicate the loss of two breeding adults each year on average. (Note that 97.5% survival is high, and that even a small error in this figure would have a large effect on the level of pre-adult survival required to ensure a stable population for example, adult survival of 95% would indicate the loss of three adult breeders per year.)
- 2.4 The Skye golden eagle population comprises some 31 pairs with a productivity<sup>16</sup> of 0.58, giving an average of 18 new juveniles per year. Therefore, in order to replace the two breeding adults lost from the Skye population each year, it is necessary that an average of two pre-adults survive, indicating a minimum pre-adult survival rate of around 10% for population stability.
- 2.5 Survival in pre-adult golden eagles is very uncertain but is estimated <sup>17</sup> at between 5 and 30%. The stability of the Skye population implies that pre-adult survival is at least 10% and pre-adult survival of between 10 and 30% is therefore likely for Skye. Consequently, a central figure of 20%±10% should reasonably be assumed for pre-adult survival rather than the applicant's unfounded and over-optimistic assumption of 30% for pre-adult golden eagles in Skye. Indeed, the fact that the Skye and Scottish populations are stable and not growing despite the availability of suitable habitat in Scotland indicates that there is presently sufficient reproduction to maintain the current populations rather than a surplus. Note that the assumption of highly optimistic maximum values in order to put the best possible gloss on

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<sup>&</sup>lt;sup>14</sup> Ken Crane and Kate Nellist, *Island Eagles: 20 years observing Golden eagles on the Isle of Skye*, Cartwheeling Press, ISBN 0 9536033 0 X, Page 131-2, 1999.

<sup>&</sup>lt;sup>15</sup> Jeff Watson, *The Golden Eagle*, ISBN 0-85661-099-2, Poyser, 1997, Page 218.

<sup>&</sup>lt;sup>16</sup> Ibid, Page 219

<sup>&</sup>lt;sup>17</sup> Jeff Watson, *The Golden Eagle*, ISBN 0-85661-099-2, Poyser, 1997, Page 219.

the applicant's case is a feature of the supplementary information and is contrary to the requirement to use a precautionary approach when assessing impact on the conservation objectives of a Natura 2000 site<sup>18</sup>. Any deviation from the accepted central figures should be substantiated by evidence. In particular, note that the Scottish Executive has advised<sup>19</sup> elsewhere:

"if bird collision risks are assessed, the guidance published by SNH on 'Calculating a theoretical collision risk assuming no avoidance action' should be followed. Note that the SNH/BWEA draft guidance on a 'Methodology for Assessing the Effects of Wind Farms on Ornithological Interests' to which the collision risk guidance refers in not yet adequate for use in the assessment of the significance of impacts on SPAs"

- 2.6 The applicant's own estimate is for the additional loss of approximately one year's cohort every 25 years, or an additional 4% of the reproductive potential, and the direct estimate not including displacement is for the loss of approximately 50% of reproductive potential. Both estimates indicate alarming risk to the Skye population as severe damage to the reproduction and survival of the Skye and Cuillins SPA populations lie well within the uncertainty of both these estimates, ie assuming a present pre-adult survival of 20%±10%, either estimate has the potential to reduce this survival rate below 10%.
- 2.7 The applicant acknowledges:<sup>20</sup> "it is difficult to assess the impact of this additional mortality on the population", yet goes on to speculate without any evidence, or any analysis of uncertainty, that its estimate of collision risk will not have a significant impact on the population, including the population of the Cuillins SPA. The best available data from existing wind farms indicate a potentially severe adverse impact on the Skye population including that in the Cuillins SPA, and approval would be a breach of the Birds Directive.
- 3. Objection is lodged that there is no assessment of the impact of this proposal on the Cuillins Special Protection Area in breach of Directive 79/409/EC Article 4 and 92/43/EEC Articles 6 and 7.
- 3.1 The applicant has not demonstrated that this proposal will not have an adverse impact on the golden eagle population of the Cuilins SPA, contrary to the requirement to use the precautionary principle when considering impact on SPAs. Indeed, the applicant has failed to disclose the uncertainty in its own estimate of collision risk when it is clear that this uncertainty would indicate that the Cuillins SPA population is at risk. In view of the likely impact of the development on the SPA predicted by the best available evidence from wind farms elsewhere, ie via the direct method, I request that a full and proper analysis of the impact on the SPA be carried out and that the public be consulted on it, as the Law requires.
- Objection is lodged that there has been no cumulative assessment of the impact on Golden Eagle of this development together with all other plans and projects in golden eagle habitat elsewhere in Scotland, in breach of Directive 79/409/EC, Directive 92/43/EEC, and the Environmental Impact Assessment (Scotland) Regulations 1999.
- 4.1 In view of the severity of impact predicted by the direct method using the best available evidence, it is clear that there is potential for damage to the wider Scottish golden eagle population, for which the Skye population is believed to act as a feeder. In addition there is a large number of other plans and projects targeting golden eagle habitat that are currently in planning and the cumulative impact of the proposals on the wider Scottish golden eagle population has not been assessed.

<sup>&</sup>lt;sup>18</sup> European Commission, Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, November 2001, page 11.

<sup>19</sup> Scottish Executive, Electricity Works Regulations Scoping Opinion for a Proposed Wind Farm on the Isle of Lewis Western Isles, 26 June 2002.

20 RDC Ltd, Ben Aketil and Edinbane Wind Farms: Cumulative Bird Impact Assessment, September 2003, page 20.

- 5. Objection is lodged that there has been no Strategic Environmental Assessment of the impact on Golden Eagle of the large number of wind farm proposals and developments in golden eagle habitat in Scotland, in breach of Resolution 7.5 of The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) and of the draft resolution submitted to the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention).
- 5.1 Resolution 7.5 of the Bonn Convention calls upon the parties to<sup>21</sup>:
  - "...apply and strengthen, where major developments of wind turbines are planned, comprehensive strategic environmental impact assessment procedures to identify appropriate construction site ...evaluate the possible negative ecological impacts of wind turbines on nature, particularly migratory species, prior to deciding upon permission for wind turbines ... assess the cumulative environmental impacts of installed wind turbines on migratory species..."
- 5.2 And a draft resolution now under consideration by the standing committee of the Bern Convention recommends that:
  - "National governments must undertake Strategic Environmental Assessment (SEA) of all wind energy plans and programmes in their country."
- 5.3 Since there are in excess of 1000 wind turbines planned for golden eagle habitat in Scotland I request that the Council defer consideration of this application until the appropriate Strategic and cumulative assessments have been completed.
- 6. Objection is lodged that the applicant has failed to assess the risk of peatslide, in breach of the Environmental Impact Assessment (Scotland) Regulations 1999.
- 6.1 The proposed development is on steeply sloping peat in a high rainfall district and peatslide is likely to be one of the most significant environmental effects, yet it has not been assessed at all. This is an area of peat in very good condition and peatslide in this area would be unacceptable. I therefore request that the Council seek further information from the applicant and consult the public on this issue, as the Law requires.
- 7. Objection is lodged that the applicant has failed to provide a landslip engineering report, contrary to the requirements of the Highland Structure Plan 2001 paragraph 2.19.9.
- 7.1 In view of the above and the presence of gradients greater than 1 in 7 on the proposed site, I request that the Council seek a competent engineering report from the applicant.
- 8. Objection is lodged that the applicant's visualisations are unrepresentative and systematically underestimate the real impact of the proposed development.
- 8.1 Even the most cursory comparison of the applicant's visualisations with the actual size of the 50m monitoring mast on Ben Aketil is sufficient to demonstrate the scale of visual misrepresentation in the applicant's submission. It is unacceptable that the applicant has systematically under-represented the scale of its development in this Environmental Statement. I therefore request that the Council also compare the applicant's submissions using the 50m monitoring mast on Ben Aketil as a scale, and then seek more realistic and representative visualisations from the applicant, making the same available for public consultation.

23/04/04

<sup>&</sup>lt;sup>21</sup> www.coe.int/t/e/Cultural\_Cooperation/Environment/Nature and biological diversity/Nature protection/sc23 tpvs11e.pdf?L=E

- 9. Objection is lodged that the design of the Ben Aketil wind farm is unsympathetic to the local landscape and incongruous with the design of the Edinbane wind farm.
- 9.1 The incompatibility of the designs of the Ben Aketil and Edinbane proposals is obvious, and despite the applicant's claims, the difference between these designs is clearly visible in all of its visualisations, the greatly reduced vertical scale of the photomontages notwithstanding. The design of the Ben Aketil proposal is strident and unsympathetic to the character of the landscape and existing development in North Skye, and as such is wholly unacceptable.
- 10. Objection is lodged that the landscape impact of the Ben Aketil wind farm, on its own and in combination with the Edinbane wind farm, is severe and unacceptable.
- 10.1 The greatly reduced vertical scale of the applicant's representations notwithstanding, a visit to Causeymire is sufficient to convince any reasonable person that the cumulative landscape impact of these developments will be severe and unacceptable. The cumulative impact of these proposals will have a major adverse impact on the views towards the Cuillins from the main Portree to Dunvegan tourism corridor, contrary to the Development Plan.
- 11. Objection is lodged that the visual impact of the Ben Aketil wind farm on the settlements around Loch Bracadale is severe and unacceptable.
- 11.1 The visual impact on the communities around Loch Bracadale will be substantial and severe. The applicant's proposal will be impossible to ignore and will constantly draw the eye, not least because of its dynamic nature. The proposed development will dominate these settlements, such visual domination being wholly unacceptable.
- 12. Objection is lodged that this proposal is too close to the Edinbane wind farm site
- 12.1 Many of the problems of cumulative adverse impact arising from this development arise because it is quite simply too close to the Edinbane wind farm. North Skye is being expected to shoulder an unreasonably large share of the burden of the current rash of wind farm proposals. The proposal is intervisible or sequentially visible from all of the main vantage points in the area, and will give the impression that North Skye is a 'wind farm landscape'. The proposal's close proximity to the Edinbane wind farm and existing forestry has potentially devastating consequences for the area as a functioning habitat for important bird species. The Highland Region Wind Energy Regional Policy Guidelines state:

"By identifying a range of Areas of Search, it could be assumed that a sizeable number of wind farms could be developed here, with obvious cumulative effects on these areas, on the premise that this would divert the build-up of any development pressure from elsewhere. However, this is not desirable. Even within the Areas of Search, a dispersed pattern of development is likely to be preferable..."

This proposal is not compatible with a dispersed pattern of development, as such is contrary to the Highland Council Development Plan, and should be rejected.