

1 INTRODUCTION

- 1 At a special meeting of the Highland Council's Planning, Development, Europe and Tourism Committee on 29 November 2002, Members passed a resolution to grant planning consent, subject to conditions and a Section 75 legal agreement, for AMEC's application to construct, operate and decommission a wind farm at Edinbane, comprising twenty-seven wind turbines (the "Original Proposal"). AMEC submits that in passing this resolution, Members clearly took the view that the Original Proposal was acceptable in environmental terms, and that Edinbane represented an appropriate location for a wind farm.
- 2 In May 2005, prior to the conclusion of the Section 75 negotiations and discharge of planning consent, the Highland Council (the "Council"), asked AMEC to submit further information relating to the environmental impacts of the Original Proposal. The issues for further investigation comprised a peat slide risk assessment and a study of raptor activity.
- 3 The further work undertaken by AMEC has identified certain raptor-related environmental impacts associated with the Original Proposal. In order to mitigate these impacts to an acceptable level, AMEC proposes amendments to the Original Proposal to reduce the number of wind turbines from twenty-seven to nineteen (the "Amended Proposal").
- 4 In addition to undertaking an assessment of the environmental impacts relating to peat slide and raptor risk, AMEC has assessed the Amended Proposal against all matters covered in the Environmental Impact Assessment supporting the Original Submission.
- 5 AMEC has also reviewed relevant changes in national and local planning policy that have occurred since November 2002. AMEC submits that none of these changes have any bearing on the acceptability and appropriateness of a wind farm in the proposed location.

2 AMENDED PROPOSAL

- 6 AMEC proposes that the resolution from the 29 November 2002 meeting of the Planning, Development, Europe and Tourism Committee be amended as follows:
 - The number of turbines that may be erected shall be restricted to nineteen, identified in the Original Proposal as wind turbine numbers 1, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, 20, 21, 22 and 23. This layout is shown in plan view at Appendix A.
 - The turbine type ultimately selected for this wind farm shall present an overall collision risk to golden eagles of no greater than 0.6 per year.
 - Only the infrastructure required to construct, operate, maintain and decommission the identified nineteen wind turbines shall be constructed.

3 ENVIRONMENTAL IMPACT ASSESSMENT

- 7 AMEC has undertaken an assessment in accordance with The Environmental Impact Assessment (Scotland) Regulations 1999 in respect of peat slide and raptors. The environmental impacts of the Amended Proposal have also been assessed against those presented by the Original Proposal, with any material differences assessed individually.

3.1 Peat Slide

- 8 AMEC engaged civil engineering consultants Mott MacDonald Limited to undertake a peat slide risk assessment of the Original Proposal. Mott MacDonald's report is presented at Appendix B.

Methodology

- 9 Prior to embarking on a site visit Mott MacDonald performed a thorough desk based analysis of the topographic, geological and hydrological data for the proposed site supplemented by aerial photography. This was followed by two walkover surveys, on-site peat depth probing and in-situ 'vane testing' to assess the shear strength of the peat deposits.
- 10 This analysis enabled judgements to be made about peat strength, its stratification, its saturation and ultimately its stability. From this basis, an assessment could be made about the likelihood of 'peat failure'.

Results

- 11 The Mott MacDonald report concludes:
"Whilst it is not possible to categorically say that failure will not occur, the risk has been classified as either low or very low and it is considered that with judicious planning and an appreciation of the risks, suitable working practices and mitigation measures can be established to maintain this state."
- 12 The adoption of standard construction methodologies and control measures detailed in Chapter 5 of the Mott MacDonald report, in advance of starting construction on site and the diligent implementation of control measures, once construction starts, will maintain the risk level as 'low'. Such measures can be controlled through the imposition of planning conditions.

Peat Slide Conclusions

- 13 It is considered that the risk of peat slide can be effectively managed through measures set out in the Mott MacDonald report, so that the adverse effects which would flow from peat slide are extremely unlikely to occur. Therefore this issue is not considered to be of significance.

3.2 Raptors

- 14 AMEC engaged consultant ornithologists Natural Research (Projects) Limited to undertake an assessment of the risks to raptors, from collision and displacement, of the Original and Amended Proposals. The Natural Research report is presented at Appendix C.

Methodology

- 15 Natural Research studied the raptors visiting the site for the period August 2005 to December 2005. In addition, they processed field data collected between February 2005 and July 2005 by Lawrence Environmental Consultants. Both sets of data have been analysed and the "Band" collision risk model used to predict the impact of the consented layout.
- 16 AMEC obtained data relating to hen harrier nesting sites close to the proposed wind farm site. This had been collected by Mr Bob McMillan, a local ornithologist. This was used in assessing disturbance risk to this species.

Results: Collision Risk – Original Proposal

- 17 The predicted collision rates for raptors observed flying within the site of the proposed wind farm (Original Proposal) are as follows.

Species	Predicted annual collision for Original Proposal	Average interval between predicted collision for Original Proposal
Golden Eagle	1.1	0.9 years
White-tailed Eagle	0.08	13 years
Hen Harrier	0.06	16 years
Peregrine	Too few observations to calculate	Too few observations to calculate

- 18 SNH has advised The Highland Council and AMEC that the upper limit for predicted annual collision for golden eagles on the Edinbane wind farm site is 0.6. On this basis the collision risk calculated for the Original Proposal using the "Band" model is unacceptable.

- 19 The predicted average annual collision rates for the other species are assessed to be at acceptable levels.

Results: Collision Risk – Amended Proposal

- 20 The predicted collision rates for golden eagles observed flying within the site of the proposed wind farm (Amended Proposal) are as follows.

Species	Predicted annual collision for Amended Proposal	Average interval between predicted collision for Amended Proposal
Golden Eagle	0.6	1.7 years

- 21 The predicted average annual collision rate for golden eagles using the "Band" model is equal to the upper limit described above and is therefore acceptable.

- 22 The average annual collision rates for the other raptor species are less than for the Original Proposal and are, therefore, also considered to be at acceptable levels.

Results: Disturbance Risk – Original Proposal

- 23 Hen harrier nests exist outside of but in proximity to the proposed wind farm site. A 750 m buffer zone has been applied around these nests as a precautionary measure due to the theoretical risk of disturbance to nesting birds, as advised by Natural Research.

- 24 On the basis of this precautionary approach, two of the wind turbines in the Original Proposal, which lie within 750 m of known hen harrier nests, are considered to present an unacceptable impact.

Results: Disturbance Risk – Amended Proposal

- 25 All of the turbines in the Amended Proposal lie outwith the buffer zone described above and the Amended Proposal is therefore considered to present an acceptable impact.

Raptors Conclusion

- 26 AMEC submits that the Amended Proposal presents an acceptable level of risk to raptors.

3.3 Landscape and Visual

- 27 Members of the Planning, Development, Europe and Tourism Committee considered the landscape and visual impact of the Original Proposal in passing its resolution of 29 November 2002.
- 28 The principles applied to the design of the Original Proposal have been applied to the design of the Amended Proposal.
- 29 The Amended Proposal features eight fewer wind turbines than the Original Proposal whilst maintaining a clustered and regularly spaced layout of turbines that respects the scale, undulation and character of the host landscape type and its surroundings.
- 30 A new set of landscape visualisations has been prepared and is presented for the Council's consideration at Appendix A.

Landscape and Visual Conclusion

- 31 AMEC submits that the Amended Proposal presents less of a landscape and visual impact than the Original Proposal and that it is therefore acceptable.

3.4 Reduction in Carbon Dioxide Emissions

- 32 The Amended Proposal will have less carbon dioxide savings than the Original Proposal. Assuming wind turbines with a rating of 1.3MW, the Amended Proposal will prevent the release of up to 56,000 tonnes per annum of carbon dioxide, 650 tonnes per annum of sulphur dioxide and 190 tonnes per annum of nitrogen dioxide, all harmful greenhouse gases, all drivers of climate change. Furthermore, this level of generation will provide enough electricity for the domestic needs of 14,000 households which equates to 34,000 people, or 16% of the population of the Highlands region.*

3.5 Other Impacts of the Amended Proposal

- 33 In all other respects, AMEC considers that the Amended Proposal presents environmental impacts that are less than those assessed for the Original Proposal, as would be expected from the reduction in the scale.

4 CONCLUSION

- 34 Based on the above assessment AMEC respectfully requests that the Council grants planning permission for the Amended Proposal.

* This is based on an emissions factor of 860g CO₂/kWh, as electricity generated by coal fired power stations is typically displaced by wind power generating capacity. However, it should be noted that future changes in the power generating mix and fuel costs in the UK over the life of the wind farm means this figure may change over time.