

**ELECTRICITY ACT 1989 (SECTION 36 AND SCHEDULE 8)
TOWN AND COUNTRY PLANNING ACT 1990 (SECTION 90)
THE ELECTRICITY GENERATING STATIONS AND OVERHEAD LINES (INQUIRIES
PROCEDURE) (ENGLAND AND WALES) RULES 2007**

**PUBLIC INQUIRY TO CONSIDER SECTION 36 ELECTRICITY ACT 1989 APPLICATION BY
STEADINGS WIND FARM LIMITED FOR CONSENT AND DEEMED PLANNING PERMISSION
TO CONSTRUCT AND OPERATE A WIND FARM AT KIRKWHELPINGTON,
NORTHUMBERLAND (KNOWN AS STEADINGS)**

SUMMARY PROOF OF EVIDENCE OF

WILLIAM LATIMER, BSc., MSc., PhD.

ECOLOGY INCLUDING ASSESSMENT OF CUMULATIVE EFFECTS

ON BEHALF OF STEADINGS WIND FARM LIMITED

BERR REFERENCE: GDBC/001/00278C

TYNEDALE COUNCIL REFERENCE: 20060540

NORTHUMBERLAND COUNCIL REFERENCE: 06/00023/CPC

1. Introduction

Personal Details

S1.1 My name is William Latimer. I hold the degrees of B.Sc. in Zoology, M.Sc. in Ecology and Ph.D in animal behaviour. I have worked as a professional ecologist for over 25 years including posts with Natural England, (then the Nature Conservancy Council) wildlife trusts and, for the last 17 years in environmental consultancy. I am a member of the Institute of Ecology and Environmental Management (IEEM) and have been awarded the status of Chartered Environmentalist (CEnv.). **(Paras. 1.1 – 1.5 in the main Proof)**

Scope of Evidence

S1.2 This evidence presents a summary of the ecological impact assessment undertaken as part of the EIA, the mitigation undertaken iteratively along with the design for the windfarm and proposals for habitat creation and management to be initiated should planning permission be granted.

S1.3 A cumulative impact assessment which has taken regard of other windfarms in the area and the potential corridors for the grid connections are also considered. Information in the Environmental Statement and its associated detailed reports have been put into context by my own observations made during a site visit on the 5th and 6th of November. **(1.6 – 1.9)**

S1.4 This evidence is given on the understanding that it is my duty as an expert to help the Inquiry on the matters within my expertise and that this duty overrides any obligation to the persons from whom I have received instructions or by whom I am remunerated.

2. Ecological Impact Assessment (EclA)

S2.1 The EclA has been completed adopting national guidelines of the Department of Transport in its Transport Analysis Guidance and those of the Institute of Ecology and Environmental Management.

S2.2 Data requests and consultation has been undertaken, in particular with Northumberland County Council, the RSPB, English Nature (now Natural England) and the Northumberland Wildlife Trust and information gained has guided the surveys, assessment and mitigation. **(2.1. – 2.2)**

Surveys of Current Conditions

S2.3 The following key surveys have been completed over 2 years, informing the assessment and mitigation design.

- Phase I Habitat Survey,
- Breeding, migratory and wintering birds,
- Badgers otters and water vole,
- White-clawed crayfish, and
- Bats,

S2.4 The data for breeding bird populations and migratory and wintering birds were subjected to a wind-turbine collision-risk analysis (SNH 2000, 2005 **SWF 19.2 & 19.3**). **(2.3 – 2.8)**

3. *Key Results of Surveys*

S3.1 The predominant habitats are those of agricultural fields of improved and semi-improved pasture with some arable land in the south of the site. These areas are of low ecological interest. Marshy grasslands are also well represented in certain areas of the site.

S3.2 Protected species present include badgers at low population density, otters, and bats with known roosts in four of the buildings on the site while white-clawed crayfish occurs in the Wansbeck catchment.

S3.3 The detailed bird surveys undertaken have recorded relatively few bird species of high ecological importance breeding on the site or present in large numbers during migration or overwintering. Breeding species of note include goshawk, thought to nest in the adjacent Hawick Wood to the west of the site, curlew (3 breeding pairs) and lapwing (15 pairs). Greylag geese occur mainly during the months of October and November, feeding in farmland in the south of the site. These are the main species of concern with respect to the development. **(3.1 – 3.5)**

4. *Ecological Evaluation*

S4.1 The evaluation of ecological resources has adopted the standard hierarchical approach where the highest value is placed upon rare; vulnerable or declining habitats or species cited in the Annexes of the European Bird and Habitat Directives. Nationally rare or decreasing species or habitats may be the subject of national, or local, Biodiversity Action Plans (BAP). The conservation status of UK bird species has been categorised into Red and Amber lists denoting species of high and moderate conservation concern respectively (e.g. lapwing and curlew are placed in the Amber list). **(4.1 – 4.4)**

5. Mitigation Strategies

Mitigation by Site Avoidance.

- S5.1 The location points of the wind turbines on the site have been adjusted so as to avoid, as far as possible, areas where there are valued plant communities or habitats for protected species. Thus the areas of marshy grassland and heathland mosaics of Walney, Lunga and Sweethope Crag have been avoided entirely, thus retaining these areas undisturbed for breeding and feeding birds. A number of turbines in the remainder of the site have been relocated and have thus avoided key flight corridors for bats and greylag geese.
- S5.2 Following major re-locations of turbine to achieve the required mitigation, additional mitigation can be achieved by “micro-siting” some other turbines (i.e. movements of up to 50 metres) to give additional clearance to flight corridors for bats in particular and raptors gaining lift on the up-currents at Sweethope Crag. **(5.1 – 5.6)**

Mitigation by Seasonal Avoidance.

- S5.3 Site clearance and construction works will be seasonally organized so as to avoid the breeding season, e.g. birds, or hibernation (e.g. bats, crayfish). **(5.7)**

Mitigation by Habitat Engineering.

- S5.4 All works will take account of the requirements to avoid disturbance to watercourses from pollution, bankside works or re-alignments. Watercourse crossings will be designed in consultation with the Environment Agency and will either utilize gabion embankments that provide refuges for crayfish where present or box culverts with a natural stream-bed. **(5.8, 5.9)**

Mitigation by Habitat Creation and Management

- S5.5 A Land Management Plan is to be prepared for the site in order to enhance appropriate ecological features within the site without adding to the risk of adverse impacts arising from, for example, bird or bat collision. Thus key flight lines for foraging bats will be reinforced with new plantings of shrubs and trees to draw bats away from the turbines. **(5.10)**
- S5.6 Watercourses, forming one of these foraging flight-lines, will be further enhanced by appropriate fencing to reduce damage from stock and allow the development of waterside vegetation. Sections of the stream corridors will be enhanced by plantings of deciduous trees. These measures will provide new resting places and foraging areas for otter and badgers. **(5.10, 5.11)**

- S5.7 Long-term management with regulation of the grazing regime in the areas of species-rich marshy grassland and heathland mosaics that have been excluded from the development area will ensure that the structure of the vegetation remains suitable for nesting by upland bird species. **(5.13, 5.14)**

6. Assessment of Cumulative Impacts

Adjacent Wind-farm Proposals

- S6.1 In view of two other proposed windfarms to be sited in the same region as the Steadings proposal, Ray Fell and Green Rig, a cumulative impact assessment has been requested.
- (a) Habitat loss. Different habitats are predominantly affected at each windfarm site such that there is no amplification of loss of any one habitat type due to losses in combination. The habitats mainly affected at Steadings are the less ecologically valuable improved and semi-improved agricultural grasslands. Steadings would make a minor contribution to in-combination losses of marshy grassland.
 - (b) Displacement. Cumulative losses of breeding birds to displacement are a simple summation of territories affected by each windfarm (some birds show a particular sensitivity to the visual “clutter” of windfarms). For a number of upland breeding birds, there is accumulating evidence for a high degree of tolerance. For others however, e.g. curlew, there are clear data on significant displacement effects (up to 500 metres). At Steadings, the exclusion of the better, more extensive, areas of heathland and wet grassland mosaics from the windfarm site, should favour the retention of the breeding curlew population.
 - (c) Cumulative Collision Risk. A qualitative assessment has been carried out. The absence of Annex 1 breeding bird species at Steadings, and the generally low incidence of occurrence at other times of year is suggestive of a low contribution to the overall collision risk to upland bird populations. **(6.1 – 6.7)**

The Grid Connection

- S6.3 There are no designated statutory or non-statutory sites of nature conservation interest along the route options for the grid connection. The corridor to the substation at Cramlington would need to cross the valley of the River Blyth but could do so upstream of the reach with designated ancient woodlands adjacent. Similarly, the Stella North connection would need to cross the Tyne but in an urban area along with other existing power lines spanning the river

- S6.4 The landscape between the windfarm sites and the substations is relatively uniform, slightly undulating and dominated by mixed farming. There appear to be no distinctive landforms that birds might follow in local or regional migrations. Detailed planning for the route alignment would avoid the few small-scale, localised and potentially sensitive habitats. A significant additional risk to birds in flight from the grid connections seems unlikely. **(6.10 – 6.13)**

7. Assessment of Residual Impacts

Plant species and Plant Communities

- S7.1 Site selection for the turbines and access roads has minimised losses though in some cases it has not been possible to avoid all areas marshy grasslands. Minor losses of this habitat type can be adequately mitigated by the proposed enhancements of stream corridors. **(7.2)**

Birds

- S7.2 The site does not appear to be important for breeding, wintering or migrating species. Following application of the collision mortality models, the residual impact, on the precautionary principle, is considered to range from neutral to slight adverse depending on the species with the exception of greylag geese for which the assessment of potential impact is moderate adverse.
- S7.3 In practice, this impact is expected to be lower as the collision risk assessment has taken all turbines in the Steadings array into the calculation of risk, rather than those few turbines in the south of the site where the geese traditionally occur, and the most hazardous of these turbines have been relocated to the north. In addition, emerging data from ongoing monitoring of operational windfarms indicates that a high avoidance factor for geese in excess of 99.9% is applicable (Percival 2007, **SWF 19.1**)). **(7.3 – 7.5)**

Bats

- S7.4 While it has been possible to make adjustments to some turbine positions to reduce the risk of bat collision, a residual impact of slight adverse remains for this group. Habitat enhancements may result in an improvement in the status of insect prey and therefore compensatory re-enforcement of the bat population may occur but this remains at present speculative. **(7.6)**

Other Protected Species

S7.5 The ES has considered that minor negative impacts may be experienced by otters, crayfish and badgers from minor habitat loss. However, with the mitigation undertaken as described and the long-term enhancements as described in the Land Management above significant impacts are considered unlikely. **(7.7 – 7.8)**

8. *Objections Received.*

S8.1 No objections have been received from the statutory regulators Natural England and the Environment Agency. Northumberland County Council has objected on landscape criteria only. No objections have been received from the RSPB. **(6.8, 6.9, 8.1)**

S8.2 Northumberland Wildlife Trust has registered (31/05/06) an objection stating that the development would be contrary to a number of local policies for nature conservation. In a later e-mail (21/03/07) the Trust indicated that it would sustain an objection regarding the cumulative impacts of all three proposed windfarms.

S8.3 The proposers and Faber Maunsell ecologists have continued to consult with the Trust regarding their concerns. It is not clear, at the time of writing, whether the Trust intends to maintain its objection. **(8.2 – 8.3)**

S8.4 No other objections on ecological criteria have been raised from relevant wildlife conservation organisations. I conclude that, insofar as concerns ecological and ornithological impacts, there is not a sustainable basis for rejecting the Steadings proposal.