BirdLife INTERNATIONAL

Together for birds and people

Position Statement on Wind Farms and Birds

Adopted by Birds and Habitats Directive Task Force on 9 December 2005

This BirdLife Position Statement focuses on the EU and its relevant legislative instruments, but it could be applied in all countries that are signatories to the Bern Convention too, as the underlying principles are just as relevant. Therefore, BirdLife Partners in the respective countries are invited to adopt this position.

Climate change is widely recognised as posing the most serious threat to people and global biodiversity. Renewable energy offers an important contribution to combat the deleterious environmental changes due to climate change, by reducing dependence on fossil fuels and, hence, reducing harmful emissions of greenhouse gases. Of the most advanced renewable technologies, wind energy is increasing its contribution to energy generation worldwide, initially onshore, but with offshore installations now being deployed.

Energy generation, including from renewable sources, is not without its own potentially damaging consequences for nature conservation. There is a need to balance the risks and benefits and to minimise any adverse environmental effects.

With this aim in mind, the Conference of the Parties of the Bonn Convention[1] adopted Resolution 7.5 on Wind Turbines and Migratory Species (Seventh Meeting, Bonn, 18-24 September 2002). The Council of Europe, on behalf of the Bern Convention[2], commissioned BirdLife International to prepare a report[3] leading to the draft recommendation proposed for adoption and which forms the basis of the following text. The report reviewed the impacts on birds from wind farms and provides guidance on environmental assessment and site selection.

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[1] Convention on the Conservation of Migratory Species of Wild Animals (*Bonn Convention*)

[2] Convention on the Conservation of European Wildlife and Natural Habitats (*Bern Convention*)

[3] *Windfarms and Birds: An analysis of the effects of windfarms on birds, and guidance on environmental assessment criteria and site selection issues.* R H W Langston & J D Pullan, September 2003. http://www.coe.int/t/e/Cultural_Co-operation/Environment/Nature_and_biological_diversity/Nature_protection/sc23_inf12e.pdf?L=E

While the following text concentrates on the avifauna, it is common understanding that wind farms can have a significant impact also on other taxa (e.g. bats and marine mammals); this fact also has to be addressed.

Wind farms and birds

The literature[4] indicates that the main potentially detrimental effects of wind farms on birds are

- Collision with the moving turbine blades, with the turbine tower or associated infrastructure such as overhead powerlines, or the wake behind the rotors causing injury, leading to direct mortality.
- Disturbance displacement from around the turbines or exclusion from the whole wind farm. Reduced breeding productivity or reduced survival may result if birds are displaced from preferred habitat and are unable to find suitable alternatives. Disturbance may be caused by the presence of the turbines, and/or by maintenance vehicles/vessels and people, as well as during the construction of wind farms.
- Barriers to movement disrupting ecological links between feeding, wintering, breeding and moulting areas and extended flights around wind clusters, leading to increasing energy demand potentially reducing fitness. Large individual wind farms, or the cumulative effect of multiple wind farms, are the main concerns.
- Change to or loss of habitat due to wind turbines and associated infrastructure.

A. Site selection for wind farms

1. There is a strong consensus that the location selected for a wind farm is critically important in determining the likelihood of deleterious impacts on birds. Wind farms must be located, designed and managed so that there are no significant adverse impacts on birds of acknowledged national and international importance, or their habitats. Hence there should be *precautionary avoidance* of locating wind farms in the following:
    a. Special Protection Areas (SPAs)[5] and Important Bird Areas (IBAs)[6].
    b. Statutorily designated or qualifying international (Natura 2000 sites) or national sites for nature conservation[7].

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[4] See NABU study: *Impacts on biodiversity of exploitation of renewable energy sources: the example of birds and bats – facts, gaps in knowledge, demands for further research, and ornithological guidelines for the development of renewable energy exploitation*. H. Hötker, K-M Thomsen & H. Köster, December 2004 http://bergenhusen.nabu.de/bericht/VoegelRegEnergien.pdf

[5] As set out in the EU Directive on the Conservation of Wild Birds (79/409/EEC) (*Birds Directive*) and as part of the Natura 2000 network set up by the EU Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna (92/43/EEC) (*Habitats Directive*).

[6] IBAs are sites of international importance for bird conservation, identified by BirdLife International on the basis of standard, internationally recognised criteria.

[7] Depending on the national situation for example national parks, nature reserves, or core zones of biosphere reserves.

c. Other locations of significance for bird species identified by BirdLife International as being of Unfavourable Conservation Status in Europe.

d. Sites along major migration routes and especially migration bottlenecks where large numbers of birds are highly concentrated, for example mountain passes.

e. Habitats where wind farms are known to pose high collision risks to birds (to be assessed through site specific risk assessment). Wetlands and mountain ridges are examples of especially critical locations.

2. Adverse impacts on wildlife must be avoided by full evaluation of suitable alternatives and by appropriate location (and design). As part of effective planning, there is a need to identify species and areas of particular sensitivity, to map potential and unsuitable locations for wind energy development, on the basis of nature conservation concerns, for example avoidance of migration bottlenecks. This may require the collection of additional information, especially offshore. The impact of accompanying infrastructure such as cables, roads, maintenance activities etc. must be included in these considerations.

3. There is an urgent need for statutory marine protected areas (especially marine SPAs) to be identified, designated and protected, so that the criteria above can be applied in coastal and off-shore areas, too. Otherwise, the precautionary principle must be applied even more strictly.

B. Impact assessment

1. Wind energy projects should be considered within a framework for sustainable development that integrates energy demand reduction and efficiency, a mix of renewable energy sources to meet an increasing proportion of overall energy demand and the protection of biodiversity. This requires individual countries and the EU as a whole to undertake a strategic cost-benefit analysis of the contribution of different energy sources, including wind farms, to the energy balance versus their impacts on species and habitats.

2. National, regional and local governments must undertake Strategic Environmental Assessments (SEA) of all wind energy plans and programmes that have the potential for significant environmental effects. (Strategic) Appropriate Assessments (AA), in accordance with the requirements of Article 6 of the Habitats Directive must be carried out for all wind energy plans or programmes if it cannot be excluded, on the basis of objective information, that the plan or programme will have a significant effect[8] on a Natura 2000 site. SEAs/AAs should start at the earliest stages of plan/programme development and be an iterative process that continues throughout all stages of plan/programme development. If there are potential trans-boundary effects, then international co-operation with other governments should be sought when undertaking the SEAs/AAs. The scale of SEAs/AAs should be determined by consideration of the likely

[8] The meaning of „significant effect" is clarified in the Judgement C-127/02 ("Wadden Sea ruling", European Commission vs. The Netherlands) as an effect that is likely to undermine the site's conservation objectives.

biological scale. SEAs/AAs should be used to inform strategic site selection for renewable energy generation and identify the information requirements for individual EIAs/AAs.

3. Specifically, these SEAs/AAs should include indicative "sensitivity" mapping of bird populations, their habitats, flyways and migration bottlenecks and an assessment of the plan/programme's probable effects on these, to aid decision-making. Such a map should identify known potentially sensitive locations, locations that are not considered to have adverse implications for wildlife, and locations for which further information is needed to determine whether or not wind farm development in these areas is compatible with biodiversity conservation priorities. All stages of the life cycle and the habitats and locations that support essential functions (including feeding, breeding, moulting, resting, and non-breeding, including migration stopovers) need to be taken into account.
4. All developments should be screened to determine whether or not significant environmental effects are likely, applying suitable selection criteria[9] Comprehensive Environmental Impact Assessments (EIAs) must be undertaken for all proposed wind farm developments, including associated infrastructure (e.g. powerlines, access roads onshore) for which the screening process indicates a need.
5. If a wind farm is proposed outside a Natura 2000 site or IBA, an Appropriate Assessment[10] (or equivalent where the EU legislation does not apply) must be undertaken, in accordance with the requirements of Article 6 of the Habitats Directive and amended Article 4 of the Birds Directive, if the development is likely to have a significant effect on the site's conservation objectives and integrity (as defined in B.2 above). For IBAs which Member States failed so far to designate as SPAs, only the stricter provisions of Art. 4 (4) of the Birds Directive apply.
6. In all of these assessments (SEAs, EIAs and Appropriate Assessments), the impacts of the plan, programme or project in question must be assessed in-combination with other plans, programmes and projects in the area (both for consented and built wind farms and other developments) in order to take account of in-combination and cumulative effects.
7. All of these assessments should be carried out to a high professional standard and in a scientifically sound way, drawing on relevant expertise..
8. There is a need for best practice guidance from the European Commission on study methods for SEAs, EIAs and Appropriate Assessments related to wind farms, and for

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[9] In particular by reference to the selection criteria set out in Article III of Directive 85/337/EEC on the *'Assessment of certain public and private projects on the environment'*, as amended by Directive (97/11/EC).

[10] If a proposed development is likely to have a significant effect on any of the SPAs/Natura 2000 site's qualifying features of interest, an Appropriate Assessment is required. Further, if from the Appropriate Assessment, it cannot be ascertained that there will not be an adverse impact, then the wind farm should not proceed. It seems impossible not to find alternative locations and it is unlikely that an individual wind farm will give grounds for "imperative reasons of overriding public interest".
See for more information: European Commission (2001*): Assessment of plans and projects significantly affecting Natura 2000 sites* available from: http://europa.eu.int/comm/environment/nature/nature_conservation/eu_nature_legislation/specific_articles/art6/pdf/natura_2000_assess_en.pdf

post-construction monitoring. This guidance also needs to cover best practice for mitigation and compensation.

9. Conservation NGOs (e.g. national BirdLife Partners) should be informed and consulted on each project from an early stage in order to ensure best possible results for both renewable energy development and nature conservation.

C. Research and monitoring

1. Independent rigorous research and monitoring should be implemented, funded by national governments and the wind energy industry, in consultation with relevant experts, to improve our understanding of the impacts of wind farms on nature conservation. Special attention needs to be given to offshore wind farms and along migration flyways. This will be an iterative process that will inform decision-making, appropriate site selection and wind farm design. The results of research should be published in international scientific journals, including a summary, preferably in English, to ensure wider dissemination. The European Commission/Council of Europe should ensure easy access to the results, e.g. through a website.
2. Research and monitoring are needed to investigate the effects and potential population level impacts on birds, either because of direct mortality or because of reduced fitness or reduced reproductive output, of
    a. collision mortality,
    b. disturbance, including displacement from the area around the wind turbines,
    c. barriers to movement between feeding, breeding, wintering and moulting areas,
    d. habitat loss, change or damage,
    e. the effectiveness of different mitigation options.

    There is a need for studies at individual installations and for assessment of cumulative impacts of multiple installations. The application of standard study methods is essential to enable before-after comparison and to facilitate comparison of different sites.
3. There need to be incentives to ongoing technological development to maximise efficiency of wind turbines and to reduce dependency on locations that have other sensitivities, such as the limited shallow water habitats offshore, where these coincide with high biodiversity interest.

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