

BirdLife Position on Wind energy and Birds and Bats in the European Union

*For external use. Adopted by the Birds and Habitats Directive Task Force on 17 November 2016.
Replacing the Position on Wind farms adopted in 2005.*

This BirdLife Position 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.

This position only applies to terrestrial wind energy.

SUMMARY

Climate change is posing a major threat to people and global biodiversity. The current EU policy framework aims to combat climate change, to increase energy security and to save energy. Wind power, as one of the advanced renewable technologies, makes a significant contribution to reducing combatting climate change by replacing fossil fuels.

However, wind power has potentially damaging consequences for nature conservation. The main detrimental of wind farms on birds are displacement and disturbance, collision mortality, habitat destruction and alteration, barrier effects and indirect effects. Displacement and disturbance and collision mortality (including barotrauma) are also a well-documented problem for bats.

The location selected for a wind farm is critically important. Sensitive sites must be avoided as a matter of precaution. Strategic Environmental Assessment of wind energy plans and programmes, including sensitivity mapping, should be carried out, as well as Appropriate Assessments under the Habitats Directive. All of these assessments should be carried out to a high professional standard and in a scientifically sound way.

Independent rigorous research and monitoring should be implemented, funded by national governments and the wind energy industry, and there is a need to encourage ongoing technological innovation to maximise efficiency of wind turbines.

Contact: Wouter Langhout (wouter.langhout@birdlife.org)

1. Climate change is widely recognised as posing a major threat to people and global biodiversity¹. Renewable energy offers an important contribution to combat the harmful 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 more and more offshore installations now being deployed.
2. The European Union has through the 2020 Climate and Energy Package set targets to by 2020 reduce greenhouse gas emissions by 20% compared to 1990 levels, to increase the share of renewable energy to 20% of final energy consumption and to improve energy efficiency by 20%. In addition, the EU has committed to by 2050 reduce its greenhouse gas emissions by 80-95% compared to 1990 levels. The current EU policy framework aims not only to combat climate change, but also to increase energy security and to save energy. Renewable energy is intended to replace fossil fuels in a context of reducing production and consumption of energy.
3. Energy generation, including from renewable sources, is not without its own potentially damaging consequences for nature conservation². There is a need to balance the risks and benefits and to minimise any adverse environmental effects. Where there is careful site selection and management, wind power is already making a significant contribution to reducing climate risks to nature and people without adding to short-term conservation risks.
4. International legislation and multilateral environmental agreements (MEAs) have placed considerable emphasis on avoiding potentially damaging effects of wind energy developments. Under the 2015 Paris Agreement on Climate Change, the EU has committed to ensure environmental integrity when taking measures to reduce greenhouse gas emissions, with particular reference to biodiversity. The European Commission has issued a guidance document³ which intends to help wind energy developers to comply with the Birds and Habitats Directives. The topic has also been raised under several international conventions, notably the Bern Convention, CMS and AEWA.

¹ BirdLife (2015) BirdLife International's Position on Climate Change
http://www.birdlife.org/sites/default/files/attachments/birdlife_climate_change_position_lores-november-2015.pdf

² BirdLife (2015): Fighting Climate Change Protecting Nature – BirdLife Europe's priorities for the EU Climate and Energy Policy to 2030. <http://www.birdlife.org/sites/default/files/attachments/01-2022.pdf>

³ European Commission (2011) Wind energy developments and Natura 2000.
http://ec.europa.eu/environment/nature/natura2000/management/docs/Wind_farms.pdf

5. The Bern Convention, commissioned BirdLife International to prepare a report⁴ which forms the basis of this position, together with the guidelines developed for bats⁵. The report reviewed the impacts on birds from wind farms and provides guidance on environmental assessment and site selection.

Wind farms and birds

6. The review by BirdLife⁶ found that the main potentially detrimental effects of wind farms on birds are:
 - a. **Displacement and disturbance.** Displacement and disturbance of birds can occur during construction, operation and decommissioning of wind turbines, either due to the presence of the structures themselves and/or associated infrastructure or human activity associated with wind farms.
 - b. **Collision mortality.** Some inappropriately sited wind turbines, together with poor wind farm design, have led to significant collision mortality for sensitive species. For bats, in addition to direct collision barotrauma is also a concern. Where wind turbines are carefully sited, collision events with birds tend to be quite rare.
 - c. **Habitat destruction and alteration.** Habitat destruction and alteration from the turbine footprints is likely to be small, but can add up when associated road and grid infrastructure are included. This may be significant, particularly for large developments sited on sensitive or rare habitats, or cumulative impacts where multiple projects affect the same habitat.
 - d. **Barrier effects.** Barrier effects can be caused by wind turbines (in isolation and cumulative) disrupting links between feeding/roosting/nesting areas, or diverting flights, including migratory flights, around a wind farm, resulting in increased energy expenditure for the birds.
 - e. **Indirect effects.** Indirect effects on birds may arise through effects on habitats and/or prey species. Effects on prey abundance and availability may be direct, or mediated via changes in habitats.

⁴ Gove B, Langston RHW *et al* (2013) Wind Farms and Birds: an updated analysis of the effects of wind farms on birds, and best practice guidance on integrated planning and impact assessment.
[https://wcd.coe.int/ViewDoc.jsp?id=2064209&Site=.](https://wcd.coe.int/ViewDoc.jsp?id=2064209&Site=)

⁵ Eurobats (2014) Guidelines for consideration of bats in wind farm projects Revision 2014
http://www.eurobats.org/sites/default/files/documents/publications/publication_series/pubseries_no6_english.pdf

⁶ Gove B, Langston RHW *et al* (2013) Wind Farms and Birds: an updated analysis of the effects of wind farms on birds, and best practice guidance on integrated planning and impact assessment.
[https://wcd.coe.int/ViewDoc.jsp?id=2064209&Site=.](https://wcd.coe.int/ViewDoc.jsp?id=2064209&Site=) p 3-4.

Wind farms and bats

7. Displacement and disturbance and collision mortality (including barotrauma) are also a well-documented problem for bats⁷, while the other effects are also potentially problematic but currently insufficiently studied.

Site selection for wind farms

8. There is a strong consensus that the location selected for a wind farm is critically important in determining the likelihood of deleterious impacts on wildlife. Wind farms must be located, designed and managed so that there are no significant adverse impacts on wildlife 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) under the Birds Directive and Important Bird and Biodiversity Areas (IBAs)⁸.
 - b. Statutorily designated or qualifying international sites, Sites of Community Interest/Special Areas of Conservation under the Habitats Directive or national sites for nature conservation⁹.
 - c. Other locations of significance for bird species identified by BirdLife International as being of Unfavourable Conservation Status in Europe or at national level.
 - d. Sites along major migration routes and especially migration bottlenecks where large numbers of birds or bats 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). For example, wetlands and mountain ridges are critical locations for birds, and several types of woodlands are critical locations for bats¹⁰.
9. 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, and 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. The impact of accompanying infrastructure such as cables, roads, and maintenance activities must be included in these considerations.

⁷ Eurobats (2014) Guidelines for consideration of bats in wind farm projects Revision 2014

http://www.eurobats.org/sites/default/files/documents/publications/publication_series/pubseries_no6_english.pdf

⁸ IBAs are sites of international importance for bird conservation, identified by BirdLife International on the basis of standard, internationally recognised criteria.

⁹ Depending on the national situation for example national parks, nature reserves, or core zones of biosphere reserves.

¹⁰ Eurobats (2014) Guidelines for consideration of bats in wind farm projects Revision 2014

http://www.eurobats.org/sites/default/files/documents/publications/publication_series/pubseries_no6_english.pdf

Impact assessment

10. 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 assess the potential contribution of different energy sources, including wind farms, to the energy mix and integrate these assessments within a strategic landscape planning approach that considers impacts on species and habitats and the climate.
11. National, regional and local governments should undertake Strategic Environmental Assessments (SEA) of all wind energy plans and programmes that have the potential for significant environmental effects.
12. Appropriate Assessments (AA), in accordance with the requirements of Article 6 of the Habitats Directive should be carried out for all wind energy plans/programmes if it cannot be excluded, on the basis of objective information, that the plan or programme will have a significant effect¹¹ on a Natura 2000 site.
13. SEAs/AAs should start at the earliest stages of plan/programme development and be an iterative process that continues throughout all stages. 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 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.
14. Specifically, these SEAs/AAs should include indicative “sensitivity” mapping of bird and bat 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. Sensitivity maps should be regularly updated, and should be funded and promoted by national, regional, or local governments.
15. All developments should be screened to determine whether or not significant environmental effects are likely, applying suitable selection criteria¹² Comprehensive Environmental Impact Assessments

¹¹ 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.

¹² 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 2014/52/EU).

(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.

16. If a wind farm is proposed with potential impacts on a Natura 2000 site or IBA, an Appropriate Assessment¹³ (or equivalent where the EU legislation does not apply) should 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.
17. In all of these assessments (SEAs, EIAs and Appropriate Assessments), the cumulative 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 of existing and proposed projects.
18. If cumulative impacts on bird species are detected that result in an unfavourable conservation status of the species concerned, in spite of all assessments carried out correctly, the further planning of wind energy projects needs to be directly coupled with the conservation status of the species. This means that planning can only be continued in these areas in case the conservation status is not worsening. To this end further planning needs to be accompanied by individual species protection programmes carried out by the national or regional governments and funded by future project proponents that use other measures to bring populations back to favourable conservation status. This programme must include protection measures to reduce the impacts that wind turbines have on the species.
19. All of these assessments should be carried out to a high professional standard and in a scientifically sound way, drawing on relevant expertise. To guarantee independence of the technical experts carrying out the EIAs/AAs this work should preferably be contracted by the competent authority rather than the project proponent. The competent authority should charge the costs to the project proponents. In case this is not possible, EIAs/AAs at least should be examined by independent technical experts, and the EIAs/AAs can only be adopted after their positive opinion. Conservation NGOs (e.g. national BirdLife Partners) should be informed and consulted on each plan/programme

¹³ 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".

and should be informed on each project from an early stage in order to ensure best possible results for both renewable energy development and nature conservation.

Research and monitoring

20. 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 migration flyways. National governments should provide EIAs and appropriate assessments, including an English summary, that are readily and publicly available along with monitoring results. This will be an iterative process that will inform decision-making, appropriate site selection and wind farm design. The European Commission/Council of Europe should ensure that all member state AA/EIA summaries and monitoring results are presented on a central website.
21. It is highly encouraged that the European Commission provides sufficient funding and encourages scientific research into the cumulative effects of wind energy and power line developments to further inform appropriate landscape level planning. The results of research should be published in international scientific journals to ensure wider dissemination.
22. Research and pre- and post-construction monitoring are needed to investigate the effects and potential population level impacts on birds and bats, 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. indirect effects
 - f. the effectiveness of different mitigation options.
23. 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.
24. There is a need to encourage ongoing technological innovation to maximise efficiency of wind turbines, to require replacement of old turbines with more efficient ones (provided that the old turbines were appropriately sited). Research and development of new technologies, such as bladeless wind turbines, should be encouraged and supported.