European Commission
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Ad hoc working group on wind energy and
Biodiversity

Your reference: Our reference: Appendix


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Comments on the working draft: “Guidelines - Wind Energy Development and EU Nature Conservation Requirements”.

The Institute of Nature Conservation (IN) has some further comments on the working draft “Guidelines - Wind Energy Development and EU Nature Conservation Requirements”, in addition to our earlier comments and position statement (Everaert 2005).

General remarks

- The structure of the working draft is already of good quality. We do have some minor remarks on the content.

Remarks through the working draft

2.5. Relevant nature legislation (Box 2 about Habitats Directive)
An additional box about the Birds Directive could be added, with information about the situation for Important Bird Areas (IBAs) and Article 4(4) of the Birds Directive.
It follows from the judgement of the Court of Justice of 7 December 2000 (case C-374/98, Commission v. France, Basses Corbières), that areas which have not been classified as SPAs but should have been so classified, do not fall under the Article 6(2) to (4) of the Habitats Directive, but continue to fall under the stricter regime governed by the first sentence of Article 4(4) of the Birds Directive. This obligation exists as from 7 April 1981, the date of transposition of the Birds Directive. If an area, for some reason or other, qualifies for classification only as from a later date, but has not been classified, the same applies and Article 4(4) is applicable. One of the reasons behind the stricter provisions for IBAs, is that it gives Member States an incentive to carry out official classifications.

3.1. The Scale and Focus of Assessment
The comments in 7 (below) need to be changed or deleted (see also remarks during the last meeting). The current text is: “Although there is a high degree of agreement among experts that wind farms may have negative impacts on bird populations no statistical significant evidence of negative impacts on populations of breeding birds could be found”.
This is not completely true. Current study results indicate that breeding birds do not experience much ‘disturbance’. In the long term, however, an important impact might still occur for some species.
Moreover, statistically significant impacts on breeding birds can occur due to ‘collision’ with the turbines. For example, in Belgium, the relative large number collision victims of breeding terns at the wind farm in Zebrugge, was determined as a significant negative impact on the breeding colony (Everaert & Stienen, in prep.).

Note: For non-breeding birds (foraging/resting/migrating) important negative impacts due to collision and/or disturbance have been demonstrated.

3.4. Potential consequences for species, habitats and sites
In the text (about Table 1), the following statement is mentioned. “This suggests that the main area of concern lies with birds and wind turbines”.

We like to add that only a few good studies have been performed on the impact on bats. These studies clearly show that an important potential impact for bats can occur due to collision, probably as high as or even higher than with birds, depending on the wind farm site and the species present.

In the large Table 1 (should be ‘Table 3’), for ‘bats’ an additional ‘source of potential impact’ about the emissions of noise can be added, with disturbance/barrier effect or even collision as a result. Due to the moving rotors it appears that some wind turbines also produce ultrasonic sound waves in the range 15-35 kHz. Since the frequencies of the transmitted echo location of some bat species are in the same range, one can imagine that the echo location of the bats will be disturbed. Experiments where bats were exposed to ultrasonic waves, resulted however in small responses. On the other hand it has been observed, that in a wind farm without ultrasonic waves, foraging bats were seen, and in a wind farm with 20-30 kHz sound waves, no bats were found (Verboom & Limpens 2001). More research in this is clearly needed.

3.7. Environmental Benefit Balance (see also 4.7.4.)
We agree with the statement: “Perhaps all we can say is to avoid as much damage as possible in each discipline as long as we cannot accurately calculate the effect”.

It was already mentioned by several participants during the last meeting, not to mix the effects of each discipline, not only because we cannot accurately calculate the effects, but also because they are so different. We have to protect our remaining nature values in an appropriate manner, and cannot create a new problem while trying to solve another one.

4.1. Spatial Planning and Mapping of Location Sensitivity
A constructive working method is to map ‘potential’ and ‘no-go’ locations for wind energy in a certain country or region, based on all available information. This is best carried out by the government. ‘Potential’ locations would be those sites with ‘no’ or ‘low conflict’. The low conflict sites will require more study than the no conflict sites. The ‘no go’ locations would be those sites which are likely to be unacceptable for wind farms due to their conservation status (see also remarks in 4.1.6.).

4.1.6. Suitable Sites
More clear recommendations can be introduced here. There should be ‘precautionary avoidance’ of locating wind farms in designated or qualifying sites for nature conservation, including Important Bird Areas (IBAs), or other areas with large concentrations of birds, such as migration crossing points, or species identified as being of conservation concern. The favourable conservation status of habitats and species in these areas is a central tenet to their designation (see also guidelines in Langston & Pullan 2003, and Draft Recommendation T-PVS (2004) 4 of the Bern Convention).

4.2.1. Article 6 Assessment (see also 4.7.1. Alternatives)
Following the article 6(4), it is clear that if a wind farm could have an important negative impact on wildlife, landscape, etc., we are obliged to look for alternatives first, before examining possible imperative reasons of overriding public interest, etc.

In section 5.3.1. of ‘Managing Natura 2000 sites’, it is clearly said that “these alternatives could involve alternative locations, different scales or designs of development, or alternative processes. The zero-option should be considered too”.
We believe that there will always be alternative locations or other alternatives for a wind farm that would have an important negative impact on certain nature values. Additionally, it also seems unlikely that an individual wind farm will give grounds for ‘imperative reasons of overriding public interest’.

4.3. Precautionary Principle (also in 2.7.2.)
We agree with the statement (in the current draft) “to stringently follow the precautionary approach and in problematic cases rather not issue a construction permit when coming to final administrative decisions.”

It should be noted that the precautionary principle is also applicable for wind farms on land. For example, it is clearly mentioned in the Resolution 7.5 of the Bonn Convention. In the Habitats Directive (Article 6(2)) an almost similar “prevention principle” is also mentioned. In the line of Article 6(2) it is not acceptable to wait until deterioration or disturbances occur before taking measures. Certainly some Member States have also adopted the precautionary principle. In the circular letter EME/2000.01 of the Flemish government (Belgium) in which criteria and preconditions for the construction of wind turbines are mentioned, it is also stated that the precautionary principle must be applied certainly around Natura 2000 sites (see remarks and position statement in Everaert 2005).

There is indeed a conflict between developing wind farms in order to gain information and knowledge and waiting for solid evidence before proceeding with developments. Of course, determining when there are enough ‘indications’ of an important impact for not issuing a construction permit, will stay a problem and should be evaluated case by case.

4.4. Suggested Monitoring and Surveying Methodology
Independent monitoring is very important. We recommend to perform this monitoring under the authority of the government, in every way with experts (biologists) who work under contract of the government.

4.7.2. Mitigation – Location
Buffers around ‘areas to avoid’ can best be determined by an individual impact assessment, because every location is different. When no further information exists and no local study is available, a fixed buffer should be recommended in application of the precautionary principle.

4.7.2. Mitigation – Infrastructure/construction of turbines – Lighting of wind farms
Along important migration routes (in general), lighting on the turbines can also cause an increase in collision (not only in the offshore areas as presented in the current draft).

ANNEX I
Case studies /Issues identified, p. 2.
In the table (Birds/Collision) the references ‘Everaert et al. 2001’ and ‘Everaert, Devos & Kuijken 2003’ are not right. The references for the study results are: ‘Everaert et al. 2002’ and ‘Everaert 2003’ (see references below).

Table of case studies, p. 3.
Our study results from Zeebrugge, Belgium, can be added. More information can be presented soon. A preliminary version of an article in preparation is available on request. The relative large number of collision victims of breeding terns at the wind farm in Zeebrugge, was determined as a significant negative impact on the breeding colony in 2004 and 2005 (Everaert & Stienen, in prep.). Before the breeding season in 2005, it was recommended to temporary shut down some wind turbines, but no action was undertaken. For the breeding season in 2006, possible action will be undertaken on the basis of legal resources.

More case studies can be found in Langston & Pullan (2003).
ANNEX II

II.iii Additional case studies

Germany (and others)

Distance from turbines.
Outside the breeding season generally higher minimal distances were observed ranging from 100 to 600 meters distance (not 500 meters as presented in the current draft). Kruckenberg & Jaene (1999) found that the White-fronted Geese completely avoided an area of 400 meter around the wind turbines. Their presence was reduced by 50 % at distances of 400-600 meters. In total for the whole wind farm, an area of 345 hectares was degraded for goose feeding.

More information and case studies can be found in Langston & Pullan (2003).

ANNEX VI
Species groups and possible impact upon them.
Laridae (gulls) should be added in the list with an impact due to collision.

We will try to present some more information and remarks in the coming weeks.

Yours sincerely,

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Institute of Nature Conservation.
Project: Effects of wind turbines on habitat-suitability concerning bird-populations, long term monitoring and counseling.

References


http://www.inbo.be/content/page.asp?pid=FAU_VO_windturbines (pdf below)
An English translation of this article is available on request.

http://www.inbo.be/content/page.asp?pid=FAU_VO_windturbines (pdf below)


