



HMANA Industrial Wind Turbine Siting and Monitoring Policy

(August 18, 2014)

Policy History

HMANA first adopted an industrial wind turbine siting and monitoring policy (July 2008) strongly supporting the 2003 US Fish and Wildlife interim policy on wind turbines that advised against development in areas with landscape features known to attract raptors, in formally designated Important Bird Areas, and near concentrations of wintering, nesting and migrating raptors. HMANA's official policy was revised (June 2013) to reflect the USFWS abandonment of its interim policy and the clear directives the interim policy embodied regarding siting decisions. HMANA's current industrial wind turbine siting and monitoring policy, as approved by its board of directors on August 18, 2014, expands its 2013 policy to include consideration of eagle take permits, offshore development, and the concept of biological diversity as a threshold for determining unacceptable risk.

HMANA's Mission

The Hawk Migration Association of North America's official mission is to conserve raptor populations through the scientific study, enjoyment and appreciation of raptor migration. As a scientific, educational and conservation organization, HMANA collects data from hundreds of affiliated raptor monitoring sites throughout the United States, Canada and Mexico, and publishes a journal Hawk Migration Studies that includes data from participating hawk watches as well as articles on raptor conservation and other issues impacting raptors.

Siting Considerations

HMANA is concerned about the threat posed by industrial wind energy developments to migrating, nesting and wintering raptors. Wind conditions favorable for industrial wind energy projects may coincide with locations where concentrations of raptors occur. Industrial wind projects have been placed and are being proposed along known

migratory flyways and near nesting and wintering concentrations of raptors. Some industrial wind energy developments have been clearly demonstrated to cause high mortality rates in a variety of raptor species, frequently as a result of inappropriate siting.

HMANA's wind power policy strongly advises against wind power development in areas with landscape features known to attract raptors (such as interior ridges and the coastlines of the Great Lakes, Gulf of Mexico, and the Atlantic and Pacific Oceans), in areas formally designated as Important Bird Areas, and in areas that experience concentrations of wintering, nesting and migrating raptors.

The Need for Better Understanding and Appropriate Studies and Action
As articulated by the U.S. General Accountability Office report of 2005 and the National Academy of Science report of 2007, there is currently a lack of knowledge about the impacts of new-generation turbines on raptors. In fact, basic knowledge about raptor migration and other behavior patterns continues incomplete. Compounding any problems related to the incompleteness of our basic knowledge is the fact that raptor monitoring demonstrates high year- to-year variability in numbers at migration-observation sites, wintering grounds and other locations. These factors contribute significantly to the importance of establishing and consistently applying pre-construction and post-construction monitoring procedures for industrial wind power projects that are capable of improving the understanding of the risk to wildlife from wind power. Adequate pre-construction and post-construction monitoring practices also are important for assessing the appropriateness of any specific sites for wind power development.

The National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the Migratory Bird Treaty Act (MBTA) and other federal legislation require federal agencies to carefully consider and assess the possible adverse effects in their projects and permitting practices. HMANA supports guidelines for the siting of wind power

projects that are consistent with and at least as rigorous as provisions in the NEPA, the ESA, the MBTA and other existing federal legislation.

Mandatory design and siting standards should require the collection of at least three years of pre-construction study data for projects where landscape features, natural history patterns or other data suggest raptor concentration is possible. Pre-construction studies of raptor behavior should not be limited to migration issues but should be comprehensive and include not only the risk associated with direct turbine strikes and possible avoidance behavior, but also terrestrial habitat degradation and its effects on nesting and wintering raptors, as well as the effect of such degradation on migrating raptors' roosting needs.

When multi-year pre-construction studies confirm migration, wintering or breeding season concentrations of raptors in a particular area, then plans for development in that area should be abandoned and development forbidden; if such study shows minimal concentration of raptors, or if specific designs can be demonstrated to pose minimal danger to wildlife present in the area, then projects can be considered. In such cases, when developers have invested in diligent efforts to locate wind power development appropriately, it is still possible that post-construction monitoring might show an entire project or individual turbines to be particularly fatal to raptors: when this happens, turbines must be decommissioned or their operation suspended during the periods when the problematic turbines are found to be most destructive. Developers must agree to such remedial action as a precondition of project approval by federal, state and local permitting agencies.

HMANA urges that international, national and state and provincial standards for pre- and post-construction monitoring be promulgated and enforced that will make possible the scientifically valid assessment of risk associated with industrial wind power development. But, unfortunately, at this point, such mandatory standards do not exist. In their absence, monitoring protocols must be specifically designed for each project by qualified and independent consultants in collaboration

with federal or national regulatory and conservation agencies (e.g. the USFWS), state or provincial agencies, appropriate non-governmental conservation and scientific organizations and independent experts. The protocol for this monitoring and the monitoring results must be peer-reviewed and publicly accessible.

Biological Diversity as Criteria for Evaluating Risk to Wildlife

Using the concept of biological significance to determine whether a project, especially a wind power project, should be approved is highly problematic. When a project is deemed to have no biological significance, that essentially means that no species will face extinction because of the project, which is raising the bar pretty high for considering that the project might pose unacceptable risk to wildlife. When supporters of a wind turbine project say that the risk of the project is not biologically significant, it sounds like very few birds or bats will be killed. But in fact, what it means is that not a sufficient number of birds or bats will be killed for any species to become extinct. Is this an appropriate standard?

Although biological significance probably is not an appropriate standard by which to judge a project, it's important to understand that in terms of projected wind turbine build-out, we're very early in the process. Whereas one or two projects, now, at the beginning of expected development, obviously will not affect biological significance, multiplying those projects and their risk twenty-fold or more, consistent with industry projections, may well verge on biologically significant risk.

Offshore Wind Projects

The offshore waters of the Pacific and Atlantic Oceans, the Gulf of Mexico and the Great Lakes have been documented as important foraging areas for several species of raptors, the coastline also constitutes a landscape feature known to attract migrating raptors. During migration, sometimes large concentrations of migrating raptors

are reported over water and may be at risk from offshore wind power development.

Because of the potential attractiveness of off-shore and coastal areas to raptors and other birds, the same siting care should be taken for off-shore wind power projects as for land-based projects. Similarly, we need to improve the scientific understanding of risk posed by off-shore installations. Accordingly, if offshore projects are contemplated, specific, stringent, multi-year pre-construction studies be undertaken just as for proposed land-based wind power developments. These studies also should be coordinated with post-construction mortality studies, designed by qualified and independent consultants in collaboration with national and provincial regulatory and conservation agencies, appropriate non-governmental conservation and scientific organizations and independent experts. The design and findings of such studies should be peer-reviewed and publicly accessible.

USFWS Eagle Take Permits under the Bald and Golden Eagle Protection Act

The United States Fish and Wildlife Service has been involved with the siting of wind power projects, designing elaborate guidelines to assist developers in determining the potential risk to wildlife from proposed projects. Although adherence to these guidelines is voluntary, the USFWS should continue to be closely involved with designing and implementing pre-construction studies and post construction monitoring of projects.

Because coordination with the USFWS is only voluntary for developers, such close collaboration with the USFWS in individual projects is far from assured. Partly in recognition of this deficiency, an incidental Bald and Golden Eagle take-permitting process has been created to encourage developers to consult with the service in the development and implementation of energy projects. The USFWS grants incidental take permits on the basis of a developer's commitment to incorporate specific features and standards in their projects and perhaps engage in certain

activities that mitigate damage to wildlife that may occur as a result of any specific project.

Currently the service is in the process of extending the life of a take permit from five to 30 years, which makes the associated collaboration with the service more attractive to developers. While this may further encourage developers to engage with the USFWS through the permitting process, thereby allowing the service to more aggressively seek the incorporation of specific safeguards (or studies or monitoring activities) in the design and implementation of energy projects, such extensions of take permits from five to 30 years neutralize the effectiveness of post-construction mortality monitoring and protect the developer from submitting to any public review of a project's damages to eagles or to a review of the project's compliance with the conditions of the take permit.

HMANA opposes the extension of the time period for take permits to 30 years. This generous extension removes the necessity for periodic public review, and although the extension may encourage developers to cooperate more fully with the service, HMANA finds the five-year life span of take permits to be more appropriate.

Incidental eagle take permits can require modifications to a project that reduce the risk that project poses to eagles; take permits can also require mitigation activities that are meant to compensate for anticipated harm to eagles. Such compensatory actions can include initiatives largely unrelated to the specific risks posed by specific projects, such as the donation of land to conservation trusts or to land conservancies. While mitigation actions unrelated to the specific risks of an energy project may generally be environmentally advantageous, they should not replace actions that would directly address the specific risks of a project.

Alternate Technologies

HMANA supports alternative energy technologies if they can be shown to pose minimal risk to wildlife when appropriately designed, sited and

developed. New approaches to wind turbine technology and design in particular might be possible in the near future that pose less risk to wildlife and habitat. HMANA urges investment in research into such new technologies and their development.