

## **Wind Energy**

### **National Eagle Center - Board position**

The National Eagle Center supports the responsible use of wind energy to reduce impacts from climate change, increase energy independence, and improve air quality. Climate change threatens nearly half of North America's bird species<sup>1</sup>. Reducing man-made carbon emissions is critical to sustaining habitat for many species, including eagles.

Wind facilities are an important source of renewable energy in our nation's efforts to reduce carbon emissions, and the number of wind farms is increasing. While efforts to reduce carbon emissions are positive, it is important to also recognize wind energy does not come without a cost, as eagles and other birds and wildlife die from collisions with wind turbines and associated transmission lines<sup>2</sup>.

Fortunately, many resources are available on the proper siting and operation of wind energy facilities to reduce impacts to wildlife. The U.S. Fish and Wildlife Service has developed the publications "Land-Based Wind Energy Guidance"<sup>3</sup> and "Eagle Conservation Plan Guidance"<sup>4</sup>. These documents provide specific in-depth recommendations and voluntary guidelines for conserving bald and golden eagles and other wildlife in the course of siting, constructing, and operating wind energy facilities. The US Office of Energy Efficiency and Renewable Energy also provides information on environmental impacts, as well as funding for research on reducing wind energy impacts to wildlife<sup>5</sup>.

Regulation of wind facilities is largely the responsibility of state level regulatory agencies, such as Public Utility Commissions. In addition to regulatory requirements, many states also provide guidelines and assistance in siting and operating wind energy facilities within their respective states<sup>6,7</sup>.

The National Eagle Center believes it is critical to site wind farms away from important eagle use areas including nests, roosts, and migratory routes. We greatly appreciate the efforts of renewable energy producers that take action to reduce impacts to eagles in the siting, construction, and operation of wind energy facilities and transmission lines.

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#### **Resources:**

- 1) Audubon – The Climate Report <http://climate.audubon.org/>**
  - Impacts of climate change on North American birds
- 2) Estimates of bird collision mortality at wind facilities in the contiguous United States**

Migratory Bird Center, Smithsonian Conservation Biology Institute, National Zoological Park,  
P.O. Box 37012 MRC 5503, Washington, DC 20013, USA

U.S. Fish and Wildlife Service, Division of Migratory Birds, Midwest Regional Office, 5600  
American Blvd. West, Suite 990, Bloomington, MN 55437-1458, USA

It was estimated that between 140,000 and 328,000 (mean = 234,000) birds are killed annually by collisions with monopole turbines in the contiguous U.S. The annual loss of birds from wind turbines was estimated as high as 573,000 in 2012.

More than 1.4 million bird deaths are projected annually by 2030 or earlier if the U.S. meets its goal of producing 20 percent of electrical energy with wind.

- 3) **US Fish and Wildlife Land-Based Wind Energy Guidelines, (2012)**  
[https://www.fws.gov/ecological-services/es-library/pdfs/WEG\\_final.pdf](https://www.fws.gov/ecological-services/es-library/pdfs/WEG_final.pdf)
- 4) **US Fish and Wildlife Service Eagle Conservation Plan Guidance:**  
[https://www.fws.gov/ecological-services/energy-development/eagle\\_guidance.html](https://www.fws.gov/ecological-services/energy-development/eagle_guidance.html)
  - Guidance in the siting, operation of wind energy development
- 5) **US Office of Energy Efficiency and Renewable Energy – Environmental Impacts and Siting of Wind Projects** <https://www.energy.gov/eere/wind/environmental-impacts-and-siting-wind-projects>
  - Conducts research and development activities aimed at addressing siting and environmental issues
- 6) **National Wind Coordinating Collaborative** <https://www.nationalwind.org/>
  - Collaborative formed in 1994 to address sustainable development of wind power that comprises a diverse set of stakeholders focused on wind and wildlife issues.
  - Research and publications on wildlife impacts, wind/wildlife interaction studies, state and federal resources
  - Links to state specific wind energy resources and requirements  
<https://www.nationalwind.org/resources/state-resources/>
- 7) **American Wind Energy Association** <https://www.awea.org/Content.aspx?ItemNumber=776>
  - Listing of state and regional partnerships
- 8) **Wind-Wildlife Impacts Literature Database (WILD)** <https://wild.nrel.gov/>
  - Browseable collection of documents and document descriptions that cover the impact on wildlife from a variety of technologies