



BIRD-SMART WIND ENERGY

**Proposal to
THE DR. MICHAEL HUTCHINS IMPACT ON WILDLIFE FUND
September 21, 2021**



Golden

Eagle and Wind Turbine by Taylor Berge

Executive Summary

American Bird Conservancy (ABC) is thankful for the past support of the Dr. Michael Hutchins Impact on Wildlife Fund, and we're thrilled with your interest in supporting our Bird-Smart Wind Energy Campaign with a \$25,000 gift. As we discussed, with the increasing threats from climate change, a shift to more renewable energy sources like wind is necessary to reduce the greenhouse gases in the atmosphere. However, the locations of reliable wind both onshore and offshore are often the same places birds use to migrate, breed or overwinter which brings them into conflict with wind turbines through collisions or avoidance of otherwise suitable stopover and breeding habitat. To combat these threats, ABC has developed a Bird-Smart Wind Energy Campaign to: (1) enable the wind energy industry to better plan and account for sensitive bird species by properly siting wind facilities outside of important bird habitat, (2) advocate for policy that ensures protection of endangered and at-risk species, and (3) educate the public about this increasingly important issue through outreach. This proposal is primarily focused on the first of these strategies, specifically for new work to protect focal, at-risk species – Eastern Golden Eagle, Whooping Crane, and Roseate Tern.



Impact of Wind Industry on Birds

Studies have shown that climate change will cause far-reaching and devastating impacts to wildlife and humans alike. Renewable energy development is a critically important component of the transition away from fossil fuels, making our air cleaner and reversing the effects of climate change.

Unfortunately, wind energy development also has a substantial negative impact on birds when facilities are poorly sited. American Bird Conservancy estimates that more than half a million birds are killed by collisions with wind turbines each year. Others are killed by collisions with transmission lines built to connect facilities to the energy grid. And many more birds are displaced by wind facilities due to the changes in habitat caused by facility construction.

This is a broadly recognized problem, but it's also becoming increasingly prevalent. To address the climate crisis, renewable energy production must be dramatically increased, and elected officials are currently taking major steps toward accelerating this development. Unfortunately, wind energy facilities require relatively large acreage, so a surge in development will increase conflict with bird habitat.

The good news is protecting birds and renewable energy development do not have to be mutually exclusive. It is possible to continue to add renewable energy capacity *and* protect birds. By siting facilities in appropriate locations, mitigating for impacts to birds, and following other best practices, we can combat climate change without sacrificing our vulnerable bird populations.

American Bird Conservancy's Bird-Smart Wind Energy Campaign has been at the forefront of promoting best practices for wind energy development for more than a decade. Our work is grounded in our Bird-Smart Wind Energy principles, which provide a simple blueprint for environmentally-responsible wind energy development.

American Bird Conservancy's Bird-Smart Wind Energy Strategy

American Bird Conservancy's Bird-Smart Wind Energy Program is focused on the following strategies:

1. Intervene in wind development projects that could negatively impact birds
2. Engage in policy to ensure that protections are in place for birds
3. Elevate awareness of this issue through media and other communications

As part of the first strategy, it is necessary at times to operate in a reactive capacity when projects arise that are either precedent-setting or would have particularly egregious impacts. Otherwise, our project-level engagement is focused on species and regions where risks are particularly high.

Our species-focused work is a recent addition to our formal strategy, yet ABC has extensive experience working with each so we have much to build upon. Focal species include Whooping

Crane, Eastern Golden Eagle, Marbled Murrelet, and Roseate Tern.

Eastern Golden Eagle

The Eastern population of the Golden Eagle is unique. Whereas the species is generally thought of as a bird of wide-open western lands, the Eastern population migrates and winters primarily in large blocks of forest in the Appalachian Mountains. Because of its preference for these often inaccessible areas, the population has remained enigmatic. Following many years of uncertainty, the U.S. Fish and Wildlife Service estimated the population at around 5,000 birds.

The ridgetops that these birds use for migration and wintering are at higher elevation, with stronger and more reliable wind, making them a target for wind energy development. Many facilities have been built along these ridgelines, and many more are proposed. This conflict between the birds' behavior and interest for development is particularly concerning because Golden Eagles are known to be particularly vulnerable to collisions with wind turbines. Indeed, a recent study found that Golden Eagles are one of five species vulnerable to population-level declines due to wind energy development.

ABC's strategy to improve wind energy development practices in the range of the Eastern Golden Eagle is multi-pronged. We have identified the areas where these birds are at particularly high risk of collisions, where their key winter use areas overlap with wind energy resources. We will engage with developers on projects that are particularly poorly sited to see these projects relocated or the number of turbines reduced if some turbine locations can be proven low-risk.

As a second component to our Eastern Golden Eagle strategy, we are engaging with U.S. Fish and Wildlife Service on their intended update to regulations to implement the Bald and Golden Eagle Protection Act. Existing regulations offer inadequate protections for this population, which due to its unique behavior and habitat use, requires specific survey and monitoring methods at wind facilities, and mitigation practices. We will push to ensure that revisions to the regulations provide strong protections for this vulnerable population.

Whooping Crane

The last naturally-occurring population of the Endangered Whooping Crane makes an annual 5,000-mile round trip between breeding grounds in Wood Buffalo National Park in Canada and wintering at Aransas National Wildlife Refuge in coastal Texas. This population comprises roughly 500 of the 800 Whooping Cranes left in existence, up from a low of fewer than 20 individuals in 1941. This species' incredibly slow rate of reproduction makes hard-won population gains over the last 80 years far from secure.

The Whooping Crane's migratory pathway overlaps with some of the most abundant wind energy resources in the U.S. Accordingly, its migratory corridor is dotted with wind energy facilities. The impact of this development was highlighted in a study earlier this year, which showed that Whooping Cranes avoid stopover sites by more than three miles. These stopover sites are critically important for these birds for resting and refueling as they make their long migratory flight.

ABC's strategy to improve wind energy development in the Whooping Crane's migratory pathway follows a broad approach. We recently completed an analysis of where current and future facilities are and will be built, and which developers are operating in this area, allowing us to engage effectively with the industry. We have developed best practices for development specifically for the species' migratory pathway that we will disseminate to developers and state wildlife agencies. We will then engage project-by-project to ensure that stopover sites are avoided by an appropriate distance.

Offshore Wind and Roseate Tern

Wind energy development is in its fledgling stage in the U.S., but this is changing rapidly. There are currently seven turbines in U.S. waters – five off Block Island in Rhode Island, and two off Virginia Beach in Virginia. However, the Biden Administration has pledged 30 gigawatts of offshore wind energy – likely meaning thousands of additional turbines – by 2030. This would require a staggering pace of development.

Offshore wind energy is a mature industry in Europe, but an understanding of the industry's impacts on birds is just coming into focus. Poorly placed facilities lead to collision mortality, which can be problematic for rare species or those particularly vulnerable to collisions. Several species listed under the Endangered Species Act are vulnerable to collisions in the U.S., with the greatest risk pose to the Endangered Roseate Tern. Other species are highly impacted by displacement – one species of loon has been found to avoid facilities by 10 miles.

These challenges can be effectively addressed if facilities are planned and operated correctly, but this is not yet the standard in the U.S. Facility siting is an opaque process, and birds are not adequately considered in these processes. Technologies to monitor impacts at offshore wind facilities are still being developed, and energy companies are reluctant to use those technologies that we have. This leads to a scenario with insufficient data to evaluate impacts, and too much uncertainty about impacts to birds.

ABC's strategy to improve the standard for marine offshore wind energy development is multi pronged, and focused on establishing an acceptable standard for planning, monitoring, and mitigation. We are engaged with the industry as well as agencies and NGO partners to raise the bar on practices for this new industry, and ensuring that its benefits to climate outweigh its as yet unknown costs to wildlife.

As part of this, we have identified particularly high-risk projects that we will focus on in an attempt to improve or scale them back to minimize impacts to birds. This includes a project led by Dominion Energy in Virginia, where ABC is headquartered. We have secured a position as a participant in an avian stakeholder group for that project, and will use this position to ensure best practices are followed.

Conclusion

Thank you again for the Dr. Michael Hutchins Impact on Wildlife Fund's long-time support of American Bird Conservancy's work to protect birds. With a gift of \$25,000 from the Dr. Michael Hutchins Impact on Wildlife Fund, American Bird Conservancy will make great strides over the next year to advance our Bird-Smart Wind Energy Campaign strategies and help minimize the wind energy industry's impacts to birds like the Golden Eagle, Whooping Crane, Marbled Murrelet, and Roseate Tern. We thank you for your consideration and look forward to our continued partnership.