



AMERICAN BIRD
CONSERVANCY

Shaping the future for birds

Hon. Kathleen H. Burgess, Secretary
Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

December 15, 2015

2015 DEC 21 AM 10:30
PUB CAV BLDG
EXEC-FLR

Dear Ms. Burgess:

I am writing to express the American Bird Conservancy's (ABC's) serious concerns about Apex Clean Energy's plans to build the Lighthouse Wind Energy Project between the towns of Somerset, Niagara County and Yates, Orleans County, New York. Up to 71 570-foot tall turbines are planned for an area along the south shore of Lake Ontario, extending 4.5 miles from the Lake along a 12 mile stretch (Haley and Aldrich 2015).

ABC is a 501(c) (3) not-for-profit membership organization whose mission is to conserve native birds and their habitats throughout the Americas (www.abcbirds.org). ABC acts by safeguarding the rarest species, conserving and restoring habitats, and reducing threats, while building capacity in the bird conservation movement.

ABC supports the development of clean, renewable sources of energy such as wind power to address anthropogenic climate change, but also believes that it must be done responsibly and with minimal impact on our public trust resources, including native species of birds and bats, and particularly threatened, endangered and other protected species.

ABC is a proponent of Bird Smart Wind Energy, which is described in some detail on our web site (ABC 2015). In the case of wind energy, careful wind generation siting is crucial in preventing the unintended impacts to America's native bird species, and ABC is concerned that the proposed site for this project poses an unacceptably high risk to protected wildlife species. This risk can be substantial, depending on the circumstances, including both deaths due to turbine blade collisions (Loss et al. 2014, Smallwood 2014), and stress and displacement leading to reproductive failure (Pearce-Higgins et al. 2009, Stevens et al., 2013, Shaffer and Buhl 2015). Raptorial birds and nighttime migratory songbirds are particularly vulnerable, as are breeding grassland birds, particularly species that rely on cryptic behavior and coloration to deter predators.

How many birds move through this area annually? Observational data maintained by the Rochester Birding Association and others, such as Braddock Bay Raptor Research, Braddock Bay Bird Observatory, Hawk Migration Associations of North America, (HMANA) and Buffalo Ornithological Society, show that the region within one to six miles of the shoreline is a major pathway for migratory song birds and raptors. The western NY southern shore of Lake Ontario is also an important breeding and wintering habitat for grassland birds. Studies by Audubon NY and The Nature Conservatory over the past ten years have verified the significance of this corridor (France et al. 2012, Morgan and Burger 2008). These studies have documented extensive use of agricultural areas in fall within six miles of Lake Ontario. It has been suggested that vast numbers of migrants rest and refuel along the lakeshore in isolated wooded patches in the agricultural areas between Buffalo and Rochester.

In addition, the proposed Lighthouse Wind Project, lies just north of several important wildlife habitats, including the Iroquois National Wildlife Refuge, and Tonawanda and Oak Orchard Wildlife Management Areas. These important habitats serve as an important migratory pathway and it is to be expected that



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when resting waterfowl and other birds resume their migration they will head directly north into the vicinity of the proposed Lighthouse Wind Energy Project.

Of particular importance to these deliberations is the U.S. Fish and Wildlife Service's (FWS') 6 May 2015 letter to Apex Clean Energy regarding the proposed Lighthouse Wind Energy Project (Stilwell 2015). The proposed facility is close to the south shore of Lake Ontario, and according to the FWS' own studies of bird and bat movement in the Great Lakes region (Bowden et al. 2015), could pose significant risk to our nation's migratory birds and bats, including our iconic Bald Eagles. The letter specifically states FWS' serious concerns about this project, recommending, "...that Apex carefully consider the potential effects of the Lighthouse wind project design, construction and operation on wildlife, including protected bats and migratory birds." It further states, "...the project is in an area known to have very high avian activity as evidenced by the studies completed to date." ABC strongly agrees with the FWS' recommendation that wind energy projects should be built at least three miles away from the Great Lakes shoreline to reduce risk to migratory birds and bats. Nature conservancy has recommended a distance of five miles. The proposed Lighthouse project seems to fall within the FWS recommendation, but not Nature Conservancy's. In fact, each location must be considered by virtue of its own biological characteristics. In this case, the northern border should be 6 miles or greater from the lake shore based on the fall migration patterns found in The Nature Conservancy's migratory bird study (France et al. 2012). Long-term studies have shown that many of our native bird populations are in precipitous decline, as the result of several cumulative factors, including poorly-sited wind energy development (North American Bird Conservation Initiative, U.S. Committee. 2014). Placing wind turbines so close to the Lake will put millions of birds at risk of collision with the turbines and could also displace breeding grassland birds. The Preliminary Scoping Statement (Haley and Aldrich 2015) states that this site was chosen because, of its "potential for avoidance and/or minimization of significant environmental impacts." That is simply not true, as this is an important area for migratory birds and bats, and the environmental impact could be substantial.

Apex will argue that it knows how to mitigate the impacts of industrial scale wind development, but this is not the case. In point of fact, we do not know what actually works with regard to mortality mitigation for wind energy development, especially for birds. Types of mitigation include use of radar or observers to detect presence of large flocks of birds and then shutting down turbines either temporarily or seasonally (e.g., during peak migration); using lighting that does not attract birds or bats at night; managing habitat under turbines (e.g., no vegetation or water that might attract birds or bats); reducing prey species (i.e., to reduce attractiveness to raptors); and retrofitting of associated transmission lines and towers (to reduce probability of collisions or electrocution). Unfortunately, few of these methods have been systematically tested for their efficacy and even fewer are actually in widespread use. The U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy recently stated that, "...technologies to minimize impacts at operational [wind energy] facilities for most species are either in early stages of development or simply do not exist." (DOE EERE 2014). When it comes to wind energy development, siting is everything and is the most effective form of mitigation, and the Lighthouse Wind Energy Project appears to be one of the most poorly sited in recent memory.

Apex Clean Energy's Web site on the Lighthouse Wind Energy project makes incorrect claims that national wildlife organizations support wind energy development in lockstep (Apex Clean Energy 2015) and that the impact of this project will be minimal. Yet, most wildlife conservation organizations, including ABC, support "properly sited" wind energy facilities, not those that pose high risks to wildlife. Furthermore, while arguing for new sites, wind energy companies often do not take into account the cumulative impact of all current anthropogenic factors on bird and bat populations. Our current approach



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is to analyze the potential impacts of one wind energy project at a time, not considering the cumulative impact of other factors influencing bird mortality and reproductive failure, both anthropogenic and natural. This is a mistake. So what if wind turbines kill fewer birds than feral cats, building collisions, or pesticides; they are still contributing to the problem. Losses due to wind energy development are far from trivial (Smallwood 2014, Loss et al. 2014), and the cumulative impact of all of these factors is what is important (Loss et al. 2015). In fact, populations of even our most common bird and bat species are currently in precipitous decline (North American Bird Conservation Initiative, U.S. Committee. 2014). Furthermore, when it comes to endangered or threatened species, the loss of even a few individuals can be significant.

It should be noted that the few peer-reviewed studies that are available on bird and bat kill at wind energy facilities show a wide range of impact. Smallwood's (2013) study, based on reports from 31 wind energy projects, estimated losses of 573,000 birds and 888,000 bats annually in the United States alone at 2012 build-out levels. However, this was merely a snapshot taken at a particular point in time. There are vastly more turbines now and tens of thousands more are planned, which implies that many more birds and bats are currently being killed and many more will be lost in the future.

The coming cumulative impact of wind energy development could be significant—a point that is seldom discussed by wind energy developers. Loss et al. (2013) estimated that 1.4 million birds would be killed by wind turbines annually by 2030 or earlier if U.S. goals of 20% of electrical energy generated by wind are met. We recently updated those estimates using average per megawatt bird kill data from the Smallwood and Loss et al. findings, and obtained a similar estimate to Loss et al. for 2030. However, the U.S. Department of Energy's recent suggestion of a 35% goal (Jackson 2015) would put the estimated loss at around 5 million birds annually. In addition, this figure could be even higher if the wind industry moves toward taller turbines (and that seems to be the trend), as Loss et al. (2013) found a strong positive correlation between the incidence of bird mortality and turbine height.

Another important point is that discussions about the impact of wind energy development seem to be focused entirely on collision mortality at the turbines themselves. Little attention is given to impacts from additional infrastructure associated with wind energy development, particularly roads and power lines and towers. Hundreds of miles of new power lines and towers are being constructed to transport energy from solar and wind into the grid (McGill 2015). Yet, power line electrocutions and collisions with towers are known to be a significant source of bird mortality, perhaps also killing hundreds of thousands, if not millions of birds annually (Manville 2005, Loss et al. 2014). In addition, both power lines and roads open up “edge effects”, which are known to increase the probability of predation on ground-nesting birds (DeGregorio et al. 2014).

Following surveys conducted by paid industry consultants, Apex will likely also argue that the risks to wildlife are low and acceptable. However, it is in industry's interest to downplay the potential impacts of their projects on birds and bats, and many problems have been found with these non-independent wildlife surveys (Parr 2015). Often, such preconstruction risk analyses do not include nocturnal radar studies or do not extend the studies during inclement weather (overcast and windy), both times when birds may come to the ground or fly at heights that could place them at elevated risk.

In conclusion, the southern shore of Lake Ontario is a critical migratory corridor for both raptors and migratory songbirds. Based on an abundance of data obtained from long term monitoring and other studies, the proposed project area is likely to have unacceptable levels of avian mortality, and is



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unsuitable for large scale industrial wind development. Any large scale wind turbine facility along the lake shore will put millions of birds in danger of collision, death, and/or displacement.

The fact that Apex Energy has proposed this poorly-sited project, despite the obvious risk to our nation's wildlife illustrates many points that ABC has been trying to make with the FWS for several years. First, the voluntary guidelines for wind energy development that the FWS has developed are not working to keep wind projects out of sensitive areas for birds and bats, particularly on private lands (Casey 2015). Second, if this project becomes operational, we will never know how many birds and bats are killed because mortality data are collected by paid consultants to the wind industry and not shared with the public, even though these are public trust resources being taken (Clarke 2014, Capiello 2014).

In a recent letter to Northeast Regional FWS Director Wendy Weber (Hutchins 2015), ABC outlined what should happen if, by some chance, this poorly-sited wind energy project was approved and built. It encouraged the FWS to use its regulatory authority to impose regular, unannounced inspections post-construction to ensure that federally-protected species are not being taken. The FWS also has the ability to enforce the Bald and Golden Eagle Act, the Endangered Species Act and the Migratory Bird Treaty Act to their fullest extent. If Apex Energy chooses to build this facility, then FWS would seem obligated to prosecute, fine and even shut down the project post-construction if large numbers of federally-protected species are being taken.

ABC will be monitoring this situation closely. We have recently developed a top ten list of the worst-sited existing and proposed wind energy projects in the United States from the perspective of avian conservation. Lighthouse is on that list, and will soon become widely known to those who care about our nation's ecologically-important and irreplaceable wildlife. ABC has taken direct action to stop poorly sited wind energy facilities in the past and has been successful on several occasions. (e.g., Camp Perry: ABC 2014). It is our hope that Apex Clean Energy will realize the error of this decision and move the project well away from sensitive areas for birds and bats, including major migratory pathways, and sensitive breeding and feeding areas. To reiterate, we support wind energy development, but would just like to see it done right. That is clearly not the case here.

Thank you for the opportunity to comment.

Sincerely,

Michael Hutchins, Ph.D.
Director, Bird Smart Wind Energy Campaign

Cc: D. Ashe, J. Ford, W. Weber, D. Fitzgerald, P. Rixinger



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