AMERICAN BIRD CONSERVANCY

Bringing back the birds

Kathleen Wynne, Premier
Legislative Building
Queen's Park
Toronto ON, Canada M7A 1A1

November 8, 2016

Dear Premier Wynne:

I am writing on behalf of the American Bird Conservancy (ABC) to express serious concern about the Invenergy's proposed Strong Breeze commercial wind energy project (WEP) in Elgin County, Ontario.

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.

The specific parameters of this project have not been determined; however, in public hearings the company has mentioned from 30-40 turbines with rotor diameters of 100-120 meters. Being within close proximity to Lake Erie our concern has more to do with siting than it does with project size.

As you probably know, the Great Lakes are one of the world's great confluences of migratory birds and bats making their way to and from the boreal forests of Canada to breed. Birds and bats use the shorelines to feed and rest as they move around and over these large freshwater barriers during migration to and from the boreal forests of Canada to breed.

The Strong Breeze WEP would be located along the northern shore of Lake Erie, portions of it potentially within a few km of the lake shore. The John E. Pearce Provincial Park, which is surrounded by the project's footprint, is part of the Southwest Elgin Forest Complex, a 20 km stretch of discontinuous woodlots located within 5 km of the Lake that is also recognized as the Southwest Elgin Forest Complex Important Bird and Biodiversity Area (IBA). Birds of conservation concern, including Hooded Warbler, Acadian Flycatcher and Yellow-breasted Chat, are Federal and Provincial Species at risk, which breed in this area and are highly vulnerable to habitat fragmentation and disturbance. It is estimated that from 10-20 pairs of Hooded Warblers occupied these habitats in 1997. Large numbers of birds of prey migrate through the county, suggesting this is an important area for birds and bird conservation (Martin 2001). The well-known Hawk Cliff Hawk Watch, an important raptor migration monitoring station in the fall, is in close proximity (only 20-25 km from the project's eastern border) to the proposed site. Single day sightings have surpassed over 130,000 raptors moving through this area and along the lakeshore with significant numbers of Golden and Bald Eagles. Many bat species, including the Canadian Endangered little brown Myotis may also be threatened by this project's close proximity to the lake. Wind turbines are the second biggest killer of bats, behind only White Nose Syndrome and are a stated concern of the Ontario provincial government (https://www.ontario.ca/document/ontarios-white-nose-syndrome-response-plan). It is estimated

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that wind turbines are killing some 47,400 bats each year in Canada at current levels of development (Zimmerling and Francis 2016).

ABC supports the development of clean, renewable sources of energy such as wind power, 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 in Hutchins et al. (2016). In the case of wind energy, careful wind generation siting is crucial in preventing the unintended impacts to native bird and bat species, and ABC is concerned that the proposed site for this project poses an unacceptably high risk to protected and shared Canadian and U.S. wildlife. In the United States, the second leading wind power producer in the world, this risk can be substantial, with hundreds of thousands of birds and bats being killed annually, at minimum, through collisions with the fast-moving turbine blades (Erickson et al. 2015, Smallwood, 2013, Loss et al. 2013; Smallwood and Thelander 2008). This estimate balloons into the tens of millions when collisions and electrocutions at their associated infrastructure, notably power lines and towers, are included (Loss et al. 2015). Wind turbines are also known to cause displacement and reproductive failure in declining grassland breeding birds (e.g., Shaffer and Buhl 2015, Stevens et al. 2013).

The wind energy industry publically claims to be concerned about bird and bat mortality, but continues to try to build large, commercial wind energy facilities in major migratory corridors and sensitive breeding areas for birds and bats in the United States (Casey 2015) and Canada, thus placing our continent's ecologically important wildlife at great risk. Canada would do well not to replicate U.S. mistakes and should better regulate the wind energy industry to avoid such losses. We note that Saskatchewan recently developed new regulations to protect wildlife from poorly sited wind energy development following its cancellation of the Chaplin Lake Wind Energy Project (Saskatchewan Ministry of the Environment 2016) and we hope that all Canadian provinces and U.S. states will soon follow their lead.

Some segments of the public, and even some mainstream conservation organizations, seem to be treating large scale, commercial wind energy as if it were our only hope to address global climate change. In fact, there are many other alternative approaches, such as forest, soil, ecosystem, and biodiversity conservation, energy efficiency, reduction in meat consumption, and distributed solar on our already-built environment, that would be just as effective, but will not have the same destructive impacts on wildlife as poorly sited, large, commercial wind energy projects. Even the U.S. Fish and Wildlife Service recognizes that the contribution of wind energy to addressing climate change will be minimal at best:

"If the volume of development increases over what it would have been without the new permit regulations, then the increased amount of fossil fuel emissions that are replaced by wind energy

production could provide a greater beneficial impact of the proposed action, although in the context of planetary emissions the impact on climate change would still be minor." (FWS 2016, page xiii).

ABC questions whether the sacrifice of hundreds of thousands, if not millions, of our shared continent's ecologically important birds and bats justifies building any large, commercial wind energy facility in areas with high concentrations of birds and bats, like near the Great Lakes shorelines. The ecological services—pest control, pollination, and seed dispersal—that birds and bats provide are worth billions to the Canadian and U.S. economies (Sekercioglu, 2015, Sekercioglu et al. 2016). Bird watching also brings millions of dollars through travel and recreational equipment purchases (Kaufman 2016). Unfortunately, many of North America's bird species are already in precipitous decline, with over one third in need of concerted conservation action in order to ensure their future (North American Bird Conservation Initiative 2016).

We should remember that hydroelectric dams were once touted as the answer to clean, renewable energy, but are now being torn down due to their unexpected negative impacts on wildlife (e.g., salmon) and their habitats (Howard 2016, Yaggi 2016). Poorly sited large, commercial wind facilities have a similar profile. Furthermore, a recent study has shown that more immediate threats to wildlife are the traditional ones, including agriculture, over-exploitation and development, not climate change (Maxwell et al 2016). Despite its benefits, poorly sited wind energy is another form of development, altering wildlife habitat and directly killing large numbers of birds and bats.

Siting this large, commercial wind energy facility in close proximity to the Southwest Elgin Forest Important Bird Area and Lake Erie, a Globally Important Bird Area would be a mistake of epic proportions, and ABC urges you and the Ontario Provincial Government to reconsider this ill-considered project.

Industry consultants, such as those who are promoting this project, frequently claim that large, commercial wind projects pose little threat to migratory birds as they fly far above the rotor swept areas of the turbines. However, recent advanced radar studies conducted by the U.S. Fish and Wildlife Service (FWS) on Lake Erie, Lake Michigan and Lake Ontario show this to be patently false. Horton et al (2016), Rathbun et al. (2016) and Bowden et al. (2015) all found vast numbers of birds and bats moving along the shorelines and over the lakes, and furthermore, that they frequently flew within the rotor swept area of wind turbines, thus placing them at great risk of collision. There is no reason to believe that the findings would be any different on the Canadian side of the Great Lakes. Recognizing this threat, the FWS currently recommends that no wind turbines be built within three miles of the Great Lakes shorelines. Nature Conservancy recommends five miles. These new studies suggest that the setbacks should be extended to 5-10 miles (Miner 2016). Furthermore, these studies essentially invalidate the findings of paid consultants who typically base their conclusions on limited daytime visual observations or inadequate radar studies, while the vast majority of songbird and bat migration occurs at night and many radar studies do not measure altitude.

Wind energy developers are supposed to assess the risks associated with this development to sensitive wildlife, especially birds and bats. However, there is a problem with such studies being conducted by paid consultants to industry. Hiring paid consultants to collect this data preordains the result and is a clear violation of the first principle of scientific integrity, that is, that the people collecting the data should not have a vested interest in its outcome:

"Scientists with conflicts of interest are viewed as being at least partially integrity-compromised, and, even with complete and open disclosure, are regarded, at least to an extent, as of suspect scientific credibility" (Rowe and Alexander 2012).

It is therefore not surprising that independent researchers have found a very poor correlation between pre-construction risk studies at wind energy facilities and actual number and type of birds and bats killed post-construction (Ferrer et al. 2011, Lintott et al. 2016). We note that paid consultants would not be in business very long if their findings and testimony did not support the goals of their employers. This conflict of interest calls into question the validity of any studies they conduct.

Similarly, transparency of bird and bat kill data has been a continuing and serious problem with wind energy development in the United States and Canada (Associated Press 2015, Jackson 2016, Wrightman 2016). If this project is eventually built despite widespread opposition, then all post-construction bird and bat fatality data should be collected by independent, third party experts using standardized methods and reported directly to regulatory agencies. These data should also be made available to the public and concerned conservation organizations. These are public trust resources being taken and the public has a right to know (ABC, 2015, Clarke 2014, Wrightman 2016).

Should you move forward with this project (and we hope you don't), a plan for compensating the public for any loss of provincially and federally protected species should be worked out before any construction takes place, and should include setting aside or rehabilitating additional lands outside the project area for bird and bat conservation purposes. If data show that large numbers of birds and bats are killed by the project when it begins operation, especially protected species, then the option of total shut down and dismantlement of the turbines must be considered – and that should be made clear at the outset.

The developer will also claim that they know how to mitigate for bird kill at wind energy facilities, but the only proven mitigation methods to date are proper siting and curtailment (Arnett and May 2016). Curtailment of the wind turbines is not a popular solution for wind energy companies, as it cuts into their profit margins.

ABC considers the Strong Breeze WEP another example of the wind industry's blatant disregard for Canadian and U.S. protected wildlife. ABC notes that the United States and Canada share their migratory wildlife and have a legal and moral obligation to protect our ecologically important birds,

both being signatories of the 100 year-old Migratory Bird Treaty Act, one of the most important, but least enforced pieces of environmental legislation on our continent (Clarke 2014b).

Thank you for your consideration.

Respectfully Yours,

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Director, Bird Smart Wind Energy Campaign

Cc: G. Murray, G. Thibeault, K. McGarry, C. McWilliam

References

ABC 2015. Bird conservation group calls for changes In collection of data at wind developments. https://abcbirds.org/article/bird-conservation-group-calls-for-changes-in-collection-of-data-at-wind-developments/

Arnett, E.B. and May, R.F. 2016. Mitigating wind energy impacts on wildlife: Approaches for multiple taxa. Human-Wildlife Interactions 19: 28-41. http://www.berrymaninstitute.org/files/uploads/pdf/journal/spring2016/MitigatingWindEnergyArnettMay.pdf

Associated Press. 2015. PacifiCorp sues to block release of bird-death data at wind farms. Oregonlive.com: http://www.oregonlive.com/business/index.ssf/2014/11/pacificorp_sues_to_block_relea.html

Bowden, T.S., Olson, E.C., Rathburn, N.A., Nolfi, D.C., Horton, R.L., Larson, D.J., and Gosse, J.C. 2015. Great Lakes Avian Radar Technical Report Huron and Oceana Counties, Michigan. U.S. Department of Interior, Fish and Wildlife Service, Biological Technical Publication FWS/BTP-2015. https://www.fws.gov/radar/documents/AvianRadarTechnicalReportFall2011.pdf

Casey, M. 2015. 30,000 wind turbines located in sensitive areas for birds. CBSNews.com: http://www.cbsnews.com/news/30000-wind-turbines-located-in-critical-bird-habitats/

Clarke, C. 2014 a. It's time for independent monitoring of wildlife kills at renewable energy sites. KCET: https://www.kcet.org/redefine/its-time-for-independent-monitoring-of-wildlife-kills-at-renewable-energy-sites

Clarke, C. 2014 b. Expert: There is a problem with Fish and Wildlife's enforcement of bird law. https://www.kcet.org/redefine/expert-theres-a-problem-with-fish-and-wildlifes-enforcement-of-bird-law

Erickson , W.P., Wolfe, M.M., Bay, K.J., Johnson, D.H., and Gehring, J.L. 2014. A comprehensive analysis of small-passerine fatalities from collision with turbines at wind energy facilities. Plos One: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0107491

Ferrer, M., de Lucas, M., Janss, G.F., Casado, E., Munoz, A.R., Bechard, M.J., and Calaqbuig, C.P. 2011. Weak relationship between risk assessment studies and recorded mortality in wind farms. Journal of Applied Ecology 49: 38-46.

FWS. 2016. Draft Programmatic Environmental Impact Statement for the Eagle Rule Revision. Washington, DC: U.S. Fish and Wildlife Service, Washington, DC.

Horton, R., Rathbun, N., Bowden, T., Nolfi, D., Olson, E., Larson, D.J., and Gosse, J.C. 2016. Great lakes Radar technical Report Lake Erie Shoreline: Erie County, Ohio and Erie County, Pennsylvania, Spring 2012. U.S. Department of the Interior, Fish and Wildlife service, Biological technical Publication FWS/BTP-R3012-2016.
https://www.fws.gov/radar/documents/Avian%20Radar%20Sp2012%20Erie%20Full.pdf

Howard, B.C. 2016. River revives after largest dam removal in U.S. history. National Geographic.com: http://news.nationalgeographic.com/2016/06/largest-dam-removal-elwha-river-restoration-environment/?utm_source=Facebook&utm_medium=Social&utm_content=link_fb20160602news-elwhariver&utm_campaign=Content&sf27752028=1

Hutchins, M., Parr, M. and Schroeder, D. 2016. ABC's bird smart wind energy campaign: protecting birds from poorly sited wind energy development. Human Wildlife interactions 10 (1): 71-80. http://www.berrymaninstitute.org/files/uploads/pdf/journal/spring2016/ABCsBird-SmartHutchinsEtal.pdf

Jackson, T. 2016. Wind farm sues to block bird death data release. Sandusky Register: http://www.sanduskyregister.com/Environment/2016/06/24/Wind-farm-sues-to-block-bird-death-data-release

Kaufman, K. 2016. Economic impact: Why birds and birding matter. Toledo Chamber of Commerce: http://www.toledochamber.com/blog/economic-impact-why-birds-and-birding-matter

Lintott, P.R., Richardson, S.M. Hosken, D.J., Fensome, S.A., and Mathews, F. 2016. Ecological impact assessments fail to reduce risk of bat casualties at wind farms. Current Biology 26 (21): http://www.cell.com/current-biology/pdf/S0960-9822(16)31188-5.pdf

Loss, S.R., Will, T., and Marra, P.P. 2013. Estimates of bird collision mortality at wind facilities in the contiguous United States. Biological Conservation 168: 201–209.

Loss, S.R., Will, T., and Marra, P.P. 2015. Refining estimates of bird collision and electrocution mortality at power lines in the United States. PLoS ONE 9(7): e101565. doi:10.1371/journal.pone.0101565.

Martin, D. Fall birding in Elgin County along ther Lake Erie shoreline. OFO News October: http://www.ofo.ca/ofo-docs/Lakeeriefall.pdf

Maxell, S.L., Fuller, R.A., Brooks, T.M., and Watson, J.E.M/ The ravages of guns, nets and bulldozers. Nature 536: 143-145.

Minor, J. 2016. Study calls for 16-km turbine setback. The London Free press: http://www.lfpress.com/2016/08/15/study-calls-for-18-km-turbine-setback

North American Bird Conservation Initiative. 2016. State of the Birds, 2016. http://www.stateofthebirds.org/2016/wp-content/uploads/2016/05/SotB_16-04-26-ENGLISH-BEST.pdf

Rathbun N. A., T. S. Bowden, R. L. Horton, D. C. Nolfi, E. C. Olson, D. J. Larson, and J. C. Gosse. 2016. Great Lakes Avian Radar Technical Report; Niagara, Genesee, Wayne, and Jefferson Counties, New York; Spring 2013. U.S. Department of Interior, Fish and Wildlife Service, Biological Technical Publication FWS/BTP-301 2016. https://www.fws.gov/radar/documents/Avian%20Radar%20Sp2013%20Ontario%20Full.pdf

Rowe, S. and Alexander, N. 2012. Ensuring Scientific Integrity: Guidelines for Managing Conflicts. International Union of Food Science and Technology Bulletin 1: http://iufost.org/iufostftp/IUF.SIB.Ensuring%20Scientific%20Integrity.pdf

Saskatchewan Ministry of the Environment. 2016. Wildlife Siting Guidelines for Saskatchewan Wind Energy Projects. Fish and Wildlife lands Branch, Saskatchewan Ministry of the Environment.

Sekercioglu, C. H. 2006. Increasing awareness of avian ecological function. Trends in Ecology and Evolution 21:464–471.

Sekercioglu, C. H., D. G. Wenny, and C. G. Whelan, editors. 2016. Why birds matter: avian ecological function and ecosystem services. University of Chicago Press, Chicago, Illinois, USA.

Shaffer, J. A., and D. A. Buhl. 2015. Effects of wind energy facilities on breeding grassland bird distributions. Conservation Biology 30:59–471.

Smallwood, S.K. 2013. Comparing bird and bat fatality rate estimates among North American wind-energy projects. Wildlife Society Bulletin 37 (1): 19–33.

Smallwood, K. S. and Thelander, C. G. 2008. Bird mortality in Altamont Pass Wind Resource Area California. J. Wildl. Manage.72: 215–223.

Stevens, T. K., Hale, A.M., Karsten, K.B. and Bennett, V. J. 2013. An analysis of displacement from wind turbines in a wintering grassland bird community. Biodiversity and Conservation 22:1755–1767.

Yaggi, M. 2016. Removal of 4 dams to reopen 420 miles of historic salmon habitat on Klamath River. EcoWatch: http://ecowatch.com/2016/04/07/dam-removal-klamath-river/

Wrightman, E. 2016. The right to know: Releasing wind turbine bird & bat death data. http://ontario-wind-resistance.org/2016/08/04/the-right-to-know-releasing-wind-turbine-bird-bat-death-data/

Zimmerling, J.R. and Francis, C.M. 2016. Bat mortality due to wind turbines in Canada. The Journal of Wildlife Management. 80(8):1360–1369.