



Bringing back the birds

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

June 13, 2017

**Re: ABC Comments on Agreements (Stipulations) Regarding the Proposed Galloo Island Wind Project,
New York
Case #: 15-F-0327**

Dear Secretary Burgess:

I am writing on behalf of the American Bird Conservancy (ABC) about stipulations regarding the proposed Galloo Island Wind Energy Project in New York (Case # 15-F-0327). ABC has already written your Commission opposing the selection of this site for a large, commercial wind energy facility (30 600-foot tall turbines) due to its location in Lake Ontario, one of the world's largest confluences of migratory birds and bats. By this letter we go on public record addressing the stipulations that are being placed on the developer, Apex Clean Energy, as part of the site evaluation process. In general, many of the stipulations are good and warranted. However, there are nuances of which we hope the state will be aware of and/or strengthen as they move through this process.

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.

Wind Energy Development in General

ABC supports the development of clean, renewable sources of energy such as wind power, so long as it is 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).

Careful siting of wind generation turbines and their associated infrastructure is crucial in preventing unintended impacts to native bird and bat species (Arnett and May 2016, Hutchins et al. 2016). As ABC illustrates, it is possible to accept human-caused climate change, support the Paris Accord, and still fight to ensure that the renewable energy industry's impacts on our irreplaceable wildlife and their habitats are minimal.

The proposed site for this wind project poses an unacceptably high risk to protected wildlife. In the United States, the second leading wind power producer in the world, hundreds of thousands of birds and bats (at a minimum) are being killed annually through collisions with the fast-moving turbine blades (Erickson et al. 2015, Smallwood, 2013, Loss et al. 2013; Smallwood and Thelander 2008). This estimate becomes tens of millions of birds killed when collisions and electrocutions at the associated power lines and towers are included (Loss et al. 2015, Rioux et al. 2013). Turbines, power lines, and towers also cause displacement, migratory disruption, and reproductive failure in declining grassland breeding birds



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and bats (Schroeder 2010, Cryan 2011, Stevens et al. 2013, LeBeau et al. 2014, DeGregorio et al. 2015, Schaffer and Buhl, 2015, Winder et al. 2015, Associated Press 2016, Mahoney and Chalfoun 2016??).

The wind energy industry claims to be concerned about bird and bat mortality, but continues to propose and build large, commercial facilities and their associated infrastructure in major migratory corridors and sensitive breeding areas for birds and bats in the United States (Casey 2015), thus placing our continent's ecologically important wildlife at great risk.

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 of addressing global climate change. In fact, however, 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, would be just as effective without having the same destructive impacts on wildlife as poorly sited, large, commercial wind energy projects. Distributed solar on our already-built environment (houses, buildings, roads, parking lots, roads), for example, reduces the need for power lines and towers because energy is produced and used locally.

Even the U.S. Fish and Wildlife Service (FWS) 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 ecologically important birds and bats justifies building large, commercial wind energy facilities and associated power lines and towers in areas like the sensitive Great Lakes region, with its high concentrations of migratory birds and bats (Hutchins 2017).

The ecological services—pest control, pollination, and seed dispersal—that birds and bats provide are worth billions of dollars to the Canadian and U.S. economies (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 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, altering wildlife habitat and directly killing large numbers of birds and bats.



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The Galloo Island Wind Energy Project

Wind energy and power line developers are supposed to assess the risks their projects pose to sensitive wildlife, especially birds and bats, and the Galloo Island Project is no exception. Yet Apex Clean Energy has already wholly disregarded FWS's recommendation that no wind turbines be built within three miles of the shorelines of any Great Lake. The Nature Conservancy recommends five miles. The Commission should demand an explanation for ignoring these recommendations, and should advise Apex that, if the project is built, it will be subject to unannounced inspections post-construction and that any birds or bats found dead below their turbines—especially threatened or endangered species—could lead to prosecution and the shutdown of the facility.

The stipulations state that the developer will fully assess the impacts of “wind turbines on bird and bat species and their habitats with respect to the other wind energy projects that are currently operating and proposed to be constructed in the vicinity of the Facility” (p. 28). The “vicinity” should be defined to include the Great Lakes as a whole, not just the relatively nearby Horse Creek WEP, for there are dozens of wind energy projects currently under consideration, both in the U.S. and Canada (e.g., Strong Breeze, Lighthouse, Wolff Island Shoals, Icebreaker), that could result in thousands of additional turbines being built. This cumulative impact must be considered.

Wind project promoters typically hire paid consultants to perform the risk analysis studies, preordaining the result and violating a first principle of scientific integrity – namely, that the investigator should not have a monetary stake in the outcome of the investigation. “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 should come as no surprise that independent researchers have found a very poor correlation between pre-construction risk studies at wind energy facilities and the actual number and type of birds and bats killed post-construction (Ferrer et al. 2011, Lintott et al. 2016). The same is likely true of power lines and towers.

To ABC's knowledge, no paid consultant has ever recommended against construction of a wind project based on risk to birds and bats. That has to be expected: paid consultants would not be in business very long if their conclusions did not support the goals of their employers.

ABC is pleased that Apex will be required to “re-evaluate the Facility in relation to the USFWS Great Lakes Avian Radar technical Report: Niagara, Genesee, Wayne and Jefferson Counties, New York Spring 2013 report” (Rathbun et al. 2016). Four of these advanced radar studies have now been conducted at various locations around the Great Lakes. All have reached the same conclusion: that vast numbers of birds and bats fly through these areas every spring and fall and that many are flying within the rotor swept areas of wind turbines. The stipulations should require a discussion of how the consultant's site surveys were conducted and their weaknesses in comparison to the FWS's advanced radar studies. The FWS studies were able to determine not only volume, but also flight height of birds and bats. These studies virtually assure that all species seen on or around Galloo Island will be at risk of collision and, if any of these species are threatened or endangered at the state or federal level, incidental take permits will be required before construction is even considered.



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The stipulations also require that Apex provide “information associated with a proposed post-construction monitoring program to be implemented to assess direct and indirect impacts of the facility on avian and bat species and their habitats.” Transparency of bird and bat kill data has been a continuing and serious problem with wind energy and power line 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 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 about it (ABC, 2015, Clarke 2014). We note that the new federal eagle take rule requires that mortality data be collected by third party, independent experts using standardized methods and that the data will be shared with the public (FWS 2016).

Should the developer move forward with this project, a plan for compensating the public for any loss of state 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 and associated power lines and towers must be considered – and that should be made clear at the outset.

Apex will be required to discuss “avoidance and minimization practices” in their proposal to reduce bird and bat deaths. Apex may claim that it knows how to mitigate for bird kill at wind turbines and power lines and towers, but the only proven mitigation methods for wind turbines 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 because it cuts into their profit margins. Power from the island to the mainland may be transmitted by underwater cable, but above-ground power lines and towers on the mainland should be included in the cumulative impact analysis. Power lines and towers can be marked to help increase bird detection and reduce the possibility of bird collisions and electrocutions (APLIC 2012), but the reductions could be small or insignificant (Barrientos 2011, Dwyer et al. 2013).

ABC considers the Galloo Island WEP to be another example of the industry’s studied disregard for U.S. protected wildlife. The government has a legal and moral obligation to protect our ecologically important wildlife. The site evaluation process should not be a rubber stamp of the developer’s application, but rather an honest assessment of the risks this development will pose to our irreplaceable wildlife and their habitats.

Thank you for your consideration of these views. ABC will closely monitor the evaluation process for this project.



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Respectfully yours,

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Director, Bird Smart Wind Energy Campaign

Cc: C. Mosley, J. Ford

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

Associated Press. 2016. Sage grouse concerns nix energy project. *The Argus Observer*:
http://www.argusobserver.com/news/sage-grouse-concerns-nix-energy-project/article_dfd3b9fe-28dd-11e6-9f80-13fcb3f97e2.html

Avian Power Line Interaction Committee (APLIC). 2012. *Reducing Avian collisions with Power Lines: The State of the Art*. Washington, DC: Edison Electric Institute and APLIC.

Barrientos, R., Alonso, J.C., Ponce, C., and Palacin, C. 2011. Meta-analysis of the effectiveness of marked wire in reducing avian collisions with power lines. *Conservation Biology* 25(5): 893-903.

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>

Cryan, P.M. 2011. Wind turbines as landscape impediments to the migratory connectivity of bats. Environmental Law: <https://www.lclark.edu/live/files/8520-412cryan>

DeGregorio, B.A., Weatherhead, P.J., and Sperry, J.H. 2014. Power Lines, roads and avian nest survival: Effects on predator identity and predation intensity. Ecology and Evolution 4(9): 1589-1600.

Dwyer, J.F., Harness, R.E., and Donoue, K. 2013. Predictive model of avian electrocution risk on overhead power lines. Conservation Biology 28(1): 159-2168.

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 Calabuig, 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.

Hansen, E.P., Stewart, A.C., and Frey, S.N. 2016. Influence of transmission line construction on winter sage-grouse habitat use in southern Utah. Human-Wildlife Interactions 10(2): 169-187.

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>

Hutchins, M. 2017. Commentary: Wind turbines around the Great Lakes? A terrible idea for birds, bats. Chicago Tribune: <http://www.chicagotribune.com/news/opinion/commentary/ct-wind-turbines-birds-bats-great-lakes-perspec-0410-md-20170407-story.html>

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>

LeBeau, C.W., Beck, J.L., Johnson, G.D., and Holloran, M.J. 2014. Short-term impacts of wind energy development on Greater Sage-grouse fitness. *The Journal of Wildlife Management* 78(3): 522-530.

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](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.

Mahoney, A. and Chalfoun, A.D. 2016. Reproductive success of Horned Lark and McCown's Longspur in relation to wind energy infrastructure. *The Condor* 118 (2): 360-375.

Maxell, S.L., Fuller, R.A., Brooks, T.M., and Watson, J.E.M. 2017. The ravages of guns, nets and bulldozers. *Nature* 536: 143-145.

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>

Rioux, S., Savard, P.L., and Gerick, A.A. 2013. Avian mortalities due to transmission line collisions: A review of the estimates and field methods with an emphasis on applications to the Canadian electric network. *Avian Conservation and Ecology* 8(2): 7. <http://dx.doi.org/10.5751/ACE-00614-080207>.

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>

Schroeder, M.A. 2010. Greater Sage grouse and power lines: Reasons for concern. Washington Dept. of Fish and Wildlife report: <http://wdfw.wa.gov/publications/01303/wdfw01303.pdf>

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.



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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/>

Winder, V.L., Gregory, A.J., McNew, L.B., and Sandercock, B.K. 2015. Responses of male Greater Prairie-Chickens to wind energy development. *Condor* 117: 284-296.