



February 28, 2018

To: Matt Butler and/  
Asim Z. Haque, [Asim.haque@puc.state.oh.us](mailto:Asim.haque@puc.state.oh.us)  
[contactopsb@puco.ohio.gov](mailto:contactopsb@puco.ohio.gov)  
Chairman Public Utilities Commission of Ohio  
180 E. Broad Street Columbus, Ohio 43215-3793  
To the Ohio Power Siting Board (OPSB)

C.c. USFWS, DOE, USACE, Governor Kasich  
[John.kasich@governor.ohio.gov](mailto:John.kasich@governor.ohio.gov)  
[greg.allison@governor.ohio.gov](mailto:greg.allison@governor.ohio.gov)  
[sandra.brasington@governor.ohio.gov](mailto:sandra.brasington@governor.ohio.gov)  
[todd.colquitt@governor.ohio.gov](mailto:todd.colquitt@governor.ohio.gov)  
[kacy.bullard@governor.ohio.gov](mailto:kacy.bullard@governor.ohio.gov)  
[mark.hamlin@governor.ohio.gov](mailto:mark.hamlin@governor.ohio.gov)

C.c. Erin Hazelton, ODNR Division of Wildlife, Columbus, Ohio  
[Erin.Hazelton@dnr.state.oh.us](mailto:Erin.Hazelton@dnr.state.oh.us)  
Roak Parker, DOE  
[projecticebreaker@ee.doe.gov](mailto:projecticebreaker@ee.doe.gov)  
Lori Nordstrom  
[Lori\\_Nordstrom@fws.gov](mailto:Lori_Nordstrom@fws.gov)  
Kraig McPeek  
[Kraig\\_McPeek@fws.gov](mailto:Kraig_McPeek@fws.gov)  
Keith Lott, Fish and Wildlife Biologist, Wind Energy  
[keith\\_lott@fws.gov](mailto:keith_lott@fws.gov)  
Angela Boyer, Fish and Wildlife Biologist, Endangered Species  
[angela\\_boyer@fws.gov](mailto:angela_boyer@fws.gov)

Dan Everson, Field Supervisor

[Dan\\_everson@fws.gov](mailto:Dan_everson@fws.gov)

Kenneth Westlake, EPA Region 5, ORA Division

[westlake.kenneth@epa.gov](mailto:westlake.kenneth@epa.gov)

Joseph Krawczyk, U.S. Army Corps of Engineers, Buffalo District

[joseph.w.krawczyk@usace.army.mil](mailto:joseph.w.krawczyk@usace.army.mil)

Stuart Siegfried, Public Utilities Commission of Ohio

[stuart.siegfried@puco.ohio.gov](mailto:stuart.siegfried@puco.ohio.gov)

Liz Hartman

[Liz.hartman@ee.doe.gov](mailto:Liz.hartman@ee.doe.gov)

C.c. Interested parties

[Delivered by Email](#)

---

Re: In the Matter of the Application of Icebreaker  
Windpower, Inc., for a Certificate to Construct a Wind-  
Powered Electric Generation Facility in Cuyahoga County,  
Ohio.

Case No. 16-1871-EL-BGN

Dear Mr. Haque, Mr. Butler:

Please accept our comments on the MOU on radar applications for pre- and post construction, **and other relevant commentary**, on the Icebreaker Proposed Project of 6 offshore wind turbines.

Staff at the OPSB indicated that “The Great Lakes has unique ecological properties compared to land installations. Due to the fact that this project is precedent-setting, since it is the first proposed off-shore wind facility in Lake Erie, Staff requires more information on the radar technology monitoring protocol it selected for this small demonstration project and whether it can reliably measure the effect of off-shore turbines on birds and bats and inform of the risk levels for future development projects in Lake Erie. The pre-construction radar monitoring protocol is important to Staff’s investigation because it establishes baseline conditions using methodologies that will be

duplicated during the project's operational phase to provide robust pre- vs. post-construction comparisons for impact assessment." (*We respectfully disagree that pre-construction radar monitoring protocol can establish baseline conditions.*)

Our (Great Lakes Wind Truth/NA-PAW) comments are submitted with special attention to the proposed radar studies one of which or more, would presumably be engaged in this proposal, and other wildlife related reflections, despite the overreaching concern that the entire proposed project is founded on dubious principles, principles that to us are incompletely conceived, and disingenuous.

*We begin with umbrella or general discussion of the frailty of the project's proposal.*

## **Background of objections**

There will be no net benefit to the people of Ohio. There will be no massive outlay of jobs in a "supply chain." There will be no reduction of GHGs, and may indeed be more, and the good people of OH will be asked to bear the societal and personal costs of higher energy rates. Where are the RFPs if this proposed project is to bring jobs? We understand vague promises were made to potential suppliers, without firm discussion of what products would be needed, what costs would be incurred, and on what timelines producers would be expected to manufacture and deliver. We note that the five turbines at Block Island, have failed miserably to produce long term viable jobs, and that the 300 or so temporary construction jobs are now obviously obsolete.

[Manufacture of the Block Island turbines](#) was: *blades from Denmark, "the nacelles were made at a GE facility in St. Nazaire, France, and then shipped across the Atlantic to Rhode Island by boat," "the turbines' white towers arrived by cargo ship from Aviles, Spain. That ship also carried all of the parts to the final site."* If we expect a different chain for Icebreaker, we can think again.

["Block Island](#) has messed up gill netters and trawlers," Brady said. "They're not going to certain areas because its a risk to the boat. The five turbines they put in place there are ruining one of the most productive bottoms around." In an article titled "Offshore wind power will absolutely cost jobs of fishermen," Andrew Follett describes the concerns of Bonnie Brady, director of the Long Island Commercial Fishing Association.

“This will absolutely costs jobs in the U.S.....“If New York Governor [Andrew] Cuomo’s administration gets what it wants from offshore wind that’s thousands of fishing jobs. It’ll rip the coastal communities apart.”

We can anticipate additional burden upon Great Lakes Fishermen, many of whom already are expressing similar concern. [The Brookings Institute](#) estimates that US fishing constitutes an economic boost of \$90 billion and supports over one and a half million jobs. This includes recreational fishing, such as the Great Lakes and waterways.

### **Cost:**

Offshore wind is known to cost four to six times more than traditional fossil fuel-based plants. These costs will likely never be recovered and will only serve to add to the folly of industrial wind factories in general. Block Island has cost \$300,000,000 (Three hundred million dollars), or \$150,000 (One hundred fifty thousand) per home of 2,000. [As one writer points out:](#) “To put this in some perspective, the U.S.’s newest nuclear reactor, Watts Bar Unit 2, cost [\\$4.7 billion to build](#) but powered [4.5 million homes](#). That’s only about \$1,044 per household.... This means powering a home with the Block Island wind farm is almost 144 times more expensive than powering a home with the newest U.S. nuclear reactor.” We do not yet have calculations for the underwater cables, some of which are now being remediated due to premature lifting. We also do not know about the cost of the inevitable maintenance, lubricants, and testing of operational fittings, etc. ongoing. Nor is the cost of decommissioning known. Deepwater Wind, the developer, will receive about 24 Cents per kilowatt hour, and the average U.S. citizen now pays about 12.5 cents. Rhode Islanders say they have zero expectation that they will pay less for their electricity, and likely more, directly into the pockets of Deepwater Wind.

The argument that people are willing to pay more for “cleaner” electricity, is the pipe dream offered by wind developers. Sold to the most gullible. The electricity is clearly NOT cleaner, and always requires 100% back up from reliable hydro, gas, diesel, or nuclear facilities. What purchasers might not know, is they are actually paying more for a product that is essentially [dirtier](#), with zero societal/environmental benefits.

### **Not for the feint of heart, more stats:**

- [1 MW of wind turbine capacity](#) requires 230 tons of coal for the steel.
- [A Single 3MW Wind Turbine Needs](#): 335 tons of steel; 4.7 tons of copper ; 1,200 tons of concrete (cement and aggregates) ; 3 tons of aluminum ; 2 tons of rare earth elements ; Aluminum ; Zinc ; Molybdenum. Zinc, Nickel, Cobalt, Platinum, Aluminum, Rare Earth Elements, and Nickel (new sources), are between 73 and 100% imported.
- Blades, each weighing around 10,000 kilograms, contain gathered materials, resin, balsa wood, aluminum, non-recyclable fibre, fibreglass, hot ovens for curing, bolts, etc. Varnish, toxic. Plastics. These are then transported usually thousands of miles, using fossil fuels.
- [Gear boxes](#) must be maintained and cleaned: Cleaning Gearbox Instructions Work Sheet. This worksheet indicates the heating of the existing oil so that it can be “rinsed” out, and then replenished. According to strict instructions, “Drain the oil while hot and replace with fresh oil per the Hollister-Whitney Lubrication Instructions Procedure. If Hot Oil will not drain, refer to the chart above and add a second application of the cleaner to the Gearbox, and Run the Elevator Machine for another 24 hours. If Hot Oil will not drain at this point, contact Hollister-Whitney for assistance.”
- [Wind Turbine Cleaner Varnish and Sludge Cleaner](#): “Wind turbine gearbox lubricants perform in difficult environments. Shock loading, extended oil drain service intervals, temperature and humidity extremes can rapidly break down the best formulated lubricants, producing varnish and sludge as natural decomposition by-products. Summit’s Wind Turbine Cleaner is the most effective lubricating system conditioner available to clean and remove these performance robbing deposits.

Clean-Out Procedure: Simply replace 10% of the existing oil charge with an equal amount of Summit Wind Turbine Cleaner, and then operate normally for a minimum of 48 hours. As the warm oil is drained from the gearbox reservoir, the varnish, sludge, and carbonaceous gunk in suspension will be removed. If installed, check oil filters and change after the cleaning procedure. A thorough periodic cleaning of the gearbox lubricating system before a scheduled oil change ensures peak lubricant performance and restores the system to like-new condition. *COMPOSITION: Glycols, polyethylene, mono (1,1,3,0Tetramethyl) phenyl, ether, Harmful by inhalation, harmful in contact with skin, with eyes, may cause irritation of respiratory tract, ingestion may cause irritation, vomiting and diarrhea.*”

- [Blade Cleaning](#): Airfoil break, as they call it, can reduce electrical output by 20%. Often, helicopters are used. Airfoil break can be from snow, ice, pollution, bugs, humidity, dust. Chemicals used are often colloidal and contain solvents. Claiming to be environmentally friendly, workers are warned against getting fluids in eyes, or on clothing.
- “Installing the foundation of [a single offshore turbine can consume 18,857 barrels](#) of marine fuel during construction, [according to calculations published by Forbes Wednesday](#). Offshore wind farms often have [over 100 wind turbines](#), meaning that building them requires almost 2 million barrels of fuel just to power the ships involved in construction.”

“You can’t even construct or operate offshore wind turbines without oil,” Chris Warren, a spokesman for the free-market Institute for Energy Research, told The Daily Caller News Foundation. “For decades, we have been told that wind, solar, and other so-called ‘green’ sources are the future, and yet these sources remain expensive, intermittent, and unreliable despite government mandates and subsidies. Offshore wind in particular remains one of the most expensive sources of electricity that exists.”

Add to this the scant longevity of offshore wind, about 12 years, and the enormous cost to early replace blades [as in this article](#).

#### OFFSHORE WIND FIASCO: RENEWABLES INDUSTRY FACES \$BILLIONS IN COMPENSATION FOR EARLY REPAIRS 23/02/18 (Jillands-Posten)

Orsted is in danger of having to repair the blades of more than 600 offshore wind turbines. “Orsted’s problems mean, among other things, that almost 300 blades at its offshore wind farm at Anholt have to be taken down after just a few years of operation, sailed ashore and transported to Siemens Gamesa’s factory in Aalborg.

However, it is far from just the Anholt Park that is affected. The blades at several British Orsted offshore wind farms must also be repaired after just a few years on the water.”

One can imagine with the Icebreaker’s “shadow future project” of about 1400 massive turbines offshore, the cost of anticipated repairs, recouped of course, from taxpayers in one manner or another. Truly, it is unfathomable.

## REFLECTIONS ON THE ENVIRONMENTAL COST: Unfathomable

The letters to the OPSB from [ABC](#) and BSBO, as well as [comments from USFWS](#) as quoted in a piece in Master Resource, and Mr. John Stock representing intervenors, concerning the Draft EA and the MOU requirements, are comprehensive and clear.

*“The conclusions reached in the Draft EA regarding potential impacts to birds and bats are based on available data collected primarily outside of the project area. For example, some of the data are from the Cleveland water intake crib (located approximately 3 miles offshore of Cleveland, approximately 5 miles from the project area) or nearshore areas of the lake near Cleveland. Additional data on bird use of the airspace were generated using NEXRAD weather radar data from the Cleveland area which provides limited data about bird and bat use within the airspace that will be occupied by the turbines (the “rotor-swept zone”). Waterfowl surveys conducted by ODNR over Lake Erie several years ago that occurred in the project vicinity are used to inform waterfowl distribution within the project area. Collision mortality estimates were generated using land-based wind projects in the U.S. and Canada. The available bird and bat data is summarized in several appendices to the Draft EA (Appendices J, K, and L). Studies of bird and bat use of the specific project area have been recommended by the Service for several years (Attachment 1, Service correspondence dated April 24, 2009, November 15, 2013, March 24, 2014, October 21, 2016, February 28, 2017, March 3, 2017) but are just starting to be implemented. A bat acoustic study within the project area was started in spring 2017 and aerial waterfowl surveys will begin in fall 2017. Data from these site-specific studies are not available.” (Our emphasis)*

Please note that collision mortality “estimates” were formed from land-based wind projects both sides of the border. (Please note the incompleteness of any kind of survey, and that some recommendations are “starting to be implemented.”) We note that these “estimates” are pro developer, and as we now completely understand, do not reflect realities. For example, Wolfe Island, is known to be one of the most seriously impacted locations for bird and bat kills in the world. [Ted Cheskey of Nature Canada](#) points out that the damages are “shockingly high.” Eventually a witness for the Clearview/Collingwood Tribunal testified that “Wolfe Island is killing more than 6000 bats per year.” The highest fatality rates of bats occurred mostly at turbines along the periphery of the project....and he further estimated the fatality rate for the wpd (sic) project would be about 681 per year, 85 bats per turbine. The same expert testified that

“without pre-construction surveys of bats, it would be a guessing game as to when wind turbines should be curtailed to reduce mortalities. Other than curtailment strategies, today there are no known mitigation measures that have proven effective for bats at wind turbines.” The ERT accepted the evidence and stated that WT curtailment would be required dusk to sunrise, April to October. (The project was cancelled entirely on another matter of equal importance: evidence of certain harm to human health. The record of the environmental impacts testimonies stand for all to contemplate, and act upon.)

Wolfe Island has then, commonly referenced in environmental tribunals and EAs, not yet begun to educate us and improve our safeguards about “shockingly high” numbers of fatalities, birds and bats.

*“The monitoring reveals shockingly high numbers of fatalities of both birds and bats,” said Ted Cheskey, manager of bird conservation programs at Nature Canada. He said the figures underline what his organization has been arguing all along, that “there should not be wind turbines put in important bird areas or migratory corridors.”*

## A case study in underestimation: THE DEVELOPERS’ NORM

Referencing again the project widely protested at Clearview/Collingwood, Ontario, Canada, the developer, wpd, enlisted a consultant, whose apparent co-opt included an assessment that the area was void of bat habitat, and hence perfectly safe for a build out of 8 turbines. Dr. Scott Reynolds of New Hampshire informed the ERT (Environmental Review Tribunal), that

*“I am a biologist who has been conducting research on bats since 1993 and working with the impact of wind turbines on bats since 2003. By training, I am a population biologist and physiological ecologist with a Ph.D. from Boston University. I am currently a Certified Senior Ecologist with the Ecological Society of America. I am also the past President of the North East Bat Working Group, a research organization focusing on the ecology and conservation biology of bats in the north-eastern United States, as well as an Executive Committee Member of the North American Bat Conservation Alliance, a new*

*group of bat biologists developing conservation, research, and educational strategies for bat conservation across North America.”*

He further notes his role as “expert” in the ERT: he would provide,

*A brief description of the ecology and conservation status of the bat species likely to be encountered at the FairviewWind Project (wpd) site, with particular focus on the Species at Risk; (ii) The role of habitat and land use patterns on the likely level of bat activity at the Fairview Wind Project site, with particular focus on the Species at Risk; (iii) The type of impacts on bats I would expect from the FairviewWind Project, with particular focus on the Species at Risk...”*

Dr. Reynolds displayed a competent knowledge of endangered or rare, or at-risk species in Ontario, Little Brown Bat, Northern Eared Bat, and Tricolored Bat (Myotis); but admitted at first he had relied on the developer’s Stantec report, and a **Google Search** for evidence of habitat for these species and others. He later said he had a brief visit to the project site, which by reports was not comprehensive or even representative at all of the area, and he concluded,

*It is my opinion that the FairviewWind Project will not result in significant little brown myotis mortality because: (i) they are unlikely to be present in any abundance at the Project Site and (ii) they are at relatively low mortality risk of turbine collision due to their ecology. The conclusion that no significant level of little brown myotis mortality is likely to occur at the Project is also supported by the general lack of little brown mortality at other Ontario wind project sites over the last few years. The likelihood of mortality in respect of northern myotis and the tricolored bat is even lower given that these two species have maintained low levels of wind-related mortality in Ontario even prior to the onset of WNS (White Nose Syndrome). For example, the Bird Studies Canada (2014) data show that the northern long-eared myotis and tricolored bat represented 0.36% and 0.31% of bat mortalities in Canada, and 0.41% and 0.35% in Ontario. Although part of this low mortality is due to their relative scarcity within Ontario, the northern myotis is rarely killed by wind turbines even when they are abundant on the landscape (Fiedler, 2004).*

(Dr. Shawn Smallwood’s testimony indicated that for 100 bats killed by a single turbine, search efforts, which by nature are “limited,” “restricted,” post construction studies would only find 2 deceased bats.) After attempts to refute experts Smallwood and Dr. Brock Fenton, Dr. Reynolds concluded that “*I do not believe the Fairview Wind Project poses a risk to the long-term survival of any SAR (Species at Risk) bat species.*”

Dr. Reynolds concluded emphatically,

*In my opinion, the Fairview Project Site will not cause any serious and irreversible harm to any of the bat Species at Risk in Ontario. 51. First, the Project will have little or no impact on bat habitat. There will be no removal of any significant bat habitat, **as no such habitat even exists at the Project site.** (Our emphasis) 52. Second, as described above, there is likely to be little or no mortality of the SAR bat species at the Project Site. Post-construction monitoring results from various other projects, including the Wolfe Island project highlighted by Dr. Smallwood, support this conclusion. Even if there was to be any mortality of SAR bat species, it would be very minimal and there are mitigation measures in place that would limit this impact and ensure there is no significant level of mortality of these species. 53. Third, in terms of how, scientifically, serious and irreversible harm should be measured: serious harm would mean harm that is biologically significant, i.e. a population level impact; and for serious harm to constitute irreversible harm, it would have to be harm from which the species cannot recover (i.e. causing extirpation of the species in the area). In the context of a species that is in decline – such as the SAR bat species – in order for mortality at a wind project to be biologically significant, the wind project mortality would have to be such that it materially increases the rate of decline. In other words, the mortality would have to alter the trajectory of the downward slope the species is already on.”*

Admittedly, these are boiler plate arguments made around the world routinely by paid consultants, in our view hired to find no serious or “biologically significant” harm. The list of Dr. Reynold’s testimonies, pre and post construction surveys, research experiences, and endangered species inventory surveys, is well over 70. The findings of his testimony to the ERT in Ontario, were easily refuted by several other notables in bat surveys, as well as the newly coined, Citizen Scientist, Susan Richardson, so named and having research verified, validated, by Dr. Brock Fenton, Bat Man of Canada.

## CITIZEN SCIENTIST RICHARDSON

With diligent mapping of habitats in the area for bats, as well as daily early dawn and dusk visits to roosts, Richardson was able to present to the Tribunal, irrefutable evidence of the presence of Tricolored Myotis, Little Brown Myotis, and Northern Eared Myotis. In a message to us from Richardson, many have seen and recorded bats feeding “over the vast network of streams and ponds, over territory between the Niagara Escarpment and Georgian Bay, close to red brick century farm homes, plus broadleaf forests “where insects and beetles are prevalent, and close to secure roosts in heritage houses and barns, and forests. My Bat Map depicts the topography, elevations, water features, streams, ponds and shoreline.” Richardson added that Dr. Fenton testified that it is impossible to ID species by sight. The area is vast, and bat monitoring is typically one person, one meter, one bat at a time. While in flight, bats maintain enough distance for safety, but Richardson and her team did “catch” their voices on a recording, and monitored, one person, one bat at a time. From dusk to darkness and again from darkness to dawn, as bats returned to the roof-top roosts. The shocking distance between the proponent’s discussion of *no habitat, no bats*, and factual visual observation of YES, HABITAT, YES, BATS, came into sharp focus when the Tribunal was invited to see the house roof roosts for themselves!

Richardson and Fenton know that [simple radar examination of bat activity will not be sufficient](#). It seems that thermal imaging, combined with radar and acoustic, AND human first-hand observation, over two years or more, and daily determinations, may produce more accurate proof of activity, roosting, and migration. *We cannot locate any even remotely viable attempt to outline pre-construction bat studies proposed by Icebreaker. Also noted by some experts, very important to our discussion, is that radar will not determine types of bats. Please also note that it is accepted by various experts that by not using appropriate methods to detect bats, you will not find them. Rather than searching for roosting opportunities, for example, in the wpd project area, Stantec narrowed its search for maternity roosts, and narrowed it further to trees of larger size than are recommended by MNR (Ministry of Natural Resources). Stantec also misrepresented published documents. Bats occupy a wide variety of roots in both natural and manmade structures.*

The wide variety of roosting conditions “**justifies the use of acoustic and visual surveys. Visual surveys - mean using thermal cameras. Acoustic surveys are needed to understand which species present and visual surveys are needed to assess activity level and abundance, relative abundance...**” (From the ERT hearing testimonies)

Dr. Fenton added to his own testimony for the Collingwood/Clearview wpd (sic) project area, that the loss of even ONE bat of an endangered or at-risk species, can catapult into serious species decline. If it is a female that is killed, collateral impacts will be realized very quickly indeed.

It is well established now that the most serious impact to bat populations is no longer White Nose Syndrome, [but industrial wind turbines](#). For existing stable colonies, we also recognize the devastation on habitat and roosts, due to the interest in turbines, the insects collected, and possible nest areas. For emphasis: *The largest single impact to bat species' survival, is the proliferation of industrial wind.*

In Ontario it is now known that bat kills number about 18.5 per turbine. In the US, it is estimated that more than 880,000 are lost annually. This is massively significant and completely unacceptable. However, these numbers are pale compared to the REAL numbers. In 2012, the First Scientific Congress on Wind Energy and Wildlife Conservation in Spain, [the Spanish Society of Ornithology](#) made a statement of kills in that country. Its 18,000 turbines were likely killing 6-18 million birds and bats. This is a far cry from the 2-4 birds claimed by the US wind industry, or the 585,000 estimated by the American Bird Conservancy, when the entire US has about three times (52,000), as many turbines. Using simple math, the US is easily seeing mortality numbers of between 13-39 million birds and bats annually.

Mortality figures from Germany and Sweden in the early nineties are not unusual or inflated. “In a survey of avian impacts at wind turbines by Benner et al. (1993), bird deaths per turbine per year were as high as 309 in Germany and 895 in Sweden.” It is hard to imagine the cumulative impacts of these kill rates, which given the paltry production values of the wind industry, is additionally hideous. These are facts the industry wishes to hide, literally bury.

Additionally: We must remember who does the pre and post construction mortality 'studies' and who benefits from low accounting. It is important to study the methods of data gathering by developers, and it doesn't take complex algebra to learn that omissions, hiding of the dead, and scant counts, sometimes or often prepared over less dangerous turbine paths, are the norm, not the exception. From a Bird Studies Canada statement:

*The mortality estimates presented here potentially underestimate true mortality as they are based solely on carcasses that fell within 50 m of the turbine base. It is expected that a certain proportion of birds and bats will fall outside of this radius, and there are several different approaches to quantifying this correction factor as can be inferred based on extrapolation of Figures 1 and 2. Zimmerling et al. (2013) reported that turbine heights were very similar (~80 m) for most turbines installed in Canada as of 2011 and estimated **the proportion of carcasses expected to fall outside of 50 m to be up to 51.8% of birds, based on 4 studies that searched a radius up to 85 m.** ([Bird Studies Canada report](#))*

([In an examination of population viability and demographics](#), a model showed that the hoary bat population could experience a drastic reduction in size and increase the risk of extinction. The hoary bat (*Lasiurus Cinereus*) is the most widely killed by turbines in North America. "Our results suggest that wind energy development may pose a substantial threat to migratory bats in North America.")

Back to the Little Brown Bat (LBB). The LBB is extirpated (Ontario), with over 90% reduction in population, on the verge of extinction. It is the smallest and hardest to find kills of many species and are grossly underestimated in search results at operating wind installations. [There are 15 known species of bats in OH](#); the Indiana Bat is endangered, and the Northern Long Eared Bat is threatened statewide. According to PhD student [Toby J. Thorne](#), supervised by Dr. Brock Fenton, a study outlining the migration of bats around Lake Erie and Ontario and to nearby islands, "Radar can be used to track large scale movement by bats (Cryan and Diehl, 2009) but not at an individual level and confirmed identification of target species can be problematic." He adds,

*"Detailed track information for individuals of many larger animal species has been obtained through radio-telemetry (Kenward, 2001). However, the low body weight of most bat species limits the size of transmitter one can attach to an individual. Thus, only short-range transmitters can be used, which is of limited use as they are only detectable over a few kilometres, although McGuire et al. (2012) monitored the movements of *L. noctivagans* around Lake Erie (Ontario,*

*Canada) using coded tags and automated receiving towers.” “Bat migrations around water: Water is not an absolute barrier for bats; they have been recorded flying 40 km among islands in the Mediterranean Sea (Amengual et al., 2007) and multiple studies report bats flying offshore (e.g. Ahlén et al., 2007; Hatch et al., 2013; Peterson and Pelletier, 2014; Rydell et al., 2014). Studies of bat physiology indicate that most bats are capable of flying at sufficient speed with sufficient duration to travel > 100 km in a single flight (McGuire, 2012)”*

*In his conclusions, Thorne states that bats do migrate across Lake Erie and possibly travel longer distances than previously believed. It is fully understood, that industrial wind turbines offshore at about 6-8 miles, will act as an ‘island’ or tree, or habitat feature, and that these will then act as a death trap. Water, trees, poles, high structures near water, forests, islands, are all attractants to bats.*

Arguments advanced by developers and their consultants that habitat is simply not evident, or that populations, entire populations, are not “significantly” impacted, are patently false. There can be no doubt that developers’ consultants, are paid for the results expected. The detail provided here regarding bat populations and dangers from wind turbines is cautionary.

## CONCLUSION

Noting the precedent setting qualities of the proposed project, and the uncertainty of possible effects on the human environment and the impacts on wildlife, birds and bats, we respectfully submit that not nearly sufficient surveys of any kind have been administered by the developer and that post construction surveys of bird and bat kills off shore, will be extremely problematic, if not impossible. It appears incongruous even, that we may consider putting killing fields in our Lakes, with the blessing of a pre or post construction plan. Given that the proposed project itself has zero viability in terms of economic or environmental gain to Ohio, it seems obsolete and moot to discuss the

certain to be flawed pre-construction studies of mortality, which will only be senseless, necessarily incomplete, and morally bankrupt.

## ANOTHER CAUTIONARY TALE: BLOCK ISLAND

In a piece in the Providence Journal, Zachariah Allen writes: [“Sales Pitch on Turbines Rings Hollow. Reflecting on Deepwater Wind, Block Island Wind “Farm,”](#) the writer indicates that the promises of clean affordable electricity have not proven to be true.

It is worth quoting this entire piece.

*Let’s review the bidding and assess the value of this project. The electricity ratepayers of Rhode Island deserve an accounting.*

*The main benefits of the wind farm, proclaimed by its proponents at the outset of the project, were:*

- *Block Islanders would see reductions in their electricity bills of up to 40 percent.*
- *The wind turbines would be hardly noticeable.*
- *The wind farm would be a leader in the fight against global climate change, saving the planet and making Rhode Island a “green” state.*

*Politicians – federal, state and local – jumped on the bandwagon celebrating the arrival of “clean, affordable electricity.” If this all sounds reminiscent of the lead up to the 38 Studios debacle, it was. None of these benefits, and others also promised, are materializing.*

***Fact:*** *Block Islanders were told last year by John Bell, a rate expert from the Rhode Island Division of Public Utilities, that they would see little, if any, reduction in their electricity rates. Space does not allow me to explain the complex structure of how Block Island ratepayers will eventually be billed for electricity, but Mr. Bell was correct. There will be no significant cost savings for those ratepayers.*

***Fact:*** *The wind turbines are hardly unobtrusive. Viewing them from the lawn of the Southeast Lighthouse last fall, I was stunned by how close they seemed, how they dominate the view. Some may argue that will attract tourists to the island. Some residents of the south shore, however, may feel that their pristine view of the Atlantic has been converted into a cluttered industrial landscape of considerably less aesthetic value, one that may ultimately reduce the value of their properties. While this may seem inconsequential to those who don’t own such real estate, a deterioration of real*

*estate values could eventually reduce the tax revenues that New Shoreham relies on to fund its operations, consequentially raising tax rates for all.*

***Fact:*** *The Intergovernmental Panel on Climate Change (IPCC) report explicitly warns that global climate change patterns are irreversible, even if carbon dioxide emissions are reduced to zero. That means that the wind turbines don't help at all in a fruitless fight against climate change. Rather, our money ought to go into mitigation of the negative effects of climate change. One example of such mitigation is the state's effort to shore up the bluff in East Matunuck. Not so glamorous, perhaps, but probably a harbinger of our future.*

*The only winners in this whole mess are the investors. No attention has been paid to why the investors might have thought this was a good deal. The answer is what I call "the prize money." When the development is completed, and the wind turbines are brought online, the investors will be rewarded by the federal treasury with a check for an estimated \$100 million. That is far more than they risked on the project; a handsome prize, indeed.*

*But, who will ultimately pay for this roughly \$400 million project? Yes, you guessed it, the people of Rhode Island, and we didn't even get to vote on it.*

*It does remind one of 38 Studios, doesn't it? But, while the investors in 38 Studios may have lost everything they put into it, in this case the investors have hit the jackpot. **Rhode Island has bought another pothole.***

With respect to the hyperbole surrounding the developer's claims with Icebreaker, similar to those made to residents at RI, we request that you require the developer to prove statements it has made regarding numbers of homes to be powered, how they will prove to residents under the "Power Pledge" that separate lines will run to their homes to provide the "cleaner" power, that representations regarding nameplate power are accurate, and how in concrete terms they conclude that an outlay of new permanent jobs will occur. *We further request that the developer outline how it will completely avoid killing endangered or at-risk species.*

Of course, the further proposed proliferation of about 1400 wind turbines in Lake Erie, only serves as a magnifying glass on the possible impacts, and doubtless egregious waste of taxpayers' funds. Indeed, we should not be talking about six at all. This is, after all, by all reports, a plan to proliferate an erroneous industrial turbine LEGO plan, and befoul a magnificent Lake.

It is past time, and we must protect the Great Lakes with an offshore moratorium. One province, Ontario, has already enacted this. It is certain not to be lifted any time soon.

Thank you for this opportunity to comment.

Sincerely,

Sherri Lange  
Great Lakes Wind Truth, North American Platform Against Wind Power

Al Isselhard  
Wolcott, New York

Suzanne Albright, Rochester  
Great Lakes Wind Truth

Tom Wasilewski  
Fairview Township, Erie County, Pennsylvania

Susan Richardson, Glen Huron, Ontario  
Susan Richardson Design Inc. (Research, Strategy and Design)

REMINDER OF PREVIOUS OPSB LIST OF OMISSIONS FROM LEEDCO APPLICATION, none of which to our view, have been remedied

We conclude by reminding the OPSB and all interested persons of the omissions, and to dos provided by the OPSB in 2014 by then Chair Todd Snitchler.

*Mapping of operations and maintenance buildings, geography and topography mapping, including locations of natural gas and hazardous liquid pipelines within the project area; technical data regarding placement of the individual turbines for supporting installation and long term stability, hydrology and wind and possible impacts maps, and a plan to mitigate adverse occurrences; Layout and construction: Provide traffic and road wear impact studies, specific information on rail and ship infrastructure, specific information on upgrades of Ohio ports, specific options and details to access the turbines during frozen or semi-frozen conditions, and navigational hazard and mitigation techniques; Turbine manufacturer's safety standards; Demographic. The applicant shall provide existing and ten-year projected population estimates for communities within five miles of the proposed project area site(s). The application states that this section is not applicable because the turbines are sited seven miles off shore. However, this section would be applicable to the project because the transmission line and substation are sited inland. Provide demographic data within five miles of the associated transmission line and substation; Noise. Indicate the location of any noise-sensitive areas within one-mile of the proposed facility. Conduct studies and provide results that indicate negligible noise impacts to aquatic species; Ice throw. Describe the potential impact from ice throw at the nearest property boundary, including commercial and recreational uses of Lake Erie (i.e., fishing, shipping, military exercises, boating, swimming/diving, etc.), and the Applicant's plans to minimize potential impacts, if warranted; Blade shear. Describe the potential impact from blade shear at the nearest property boundary, including commercial and recreational uses of Lake Erie (i.e., fishing, shipping, military exercises, boating, swimming/diving, etc.), and the Applicant's plans to minimize potential impacts, if warranted; Ecological Impacts. Provide results of wildlife surveys, based on Ohio Department of Natural Resources (ODNR) and U.S. Fish and Wildlife Service (USFWS) protocols, for aquatic species, a summary of impact of the proposed facility on birds, bats, and aquatic species; Ecological Impacts during Construction and Operation. Estimate the impact of construction and operation on aquatic species within the project area boundaries, including the corridor for the 69 kV electric cable. Describe the procedures to be utilized to avoid, minimize, and mitigate both the short- and long-term impacts due to construction and operation.*